

*Perfect Form Physiotherapy
Presents...*



Lisa Howell's Perfect Pointe Parent's Manual



*All the secrets to nurture your young
dancer to success whilst staying sane!*



By:
Lisa Howell (B.Phty)
Dance Physiotherapist



Perfect Form Physiotherapy Presents...

**Lisa Howell's Perfect Pointe
Parents Manual**

**Not just creating great dancers, but
developing wonderful young women.**

Lisa A. Howell. B.Phty

**Perfect Form Physiotherapy
Sydney, Australia**

Acknowledgments

I am so thankful to everyone who has helped me get this information out to all the parents who need it. To Lauren, Charlotte, Hanna and Anna for modeling for the pictures; To Ryan and Lindsay for so patiently editing and re-editing my work; To my beautiful partner Sarkis for his constant support, encouragement and unparalleled ways of keeping me on track; To my parents, who let me dance to my heart's content, despite knowing nothing about what they were letting themselves in for! And to all the parents of dancers out there who are helping their children live their dreams.

Lisa Howell

Copyright © 2007 by Perfect Form Physiotherapy
First Edition, First Printing: June 2007

Perfect Form Physiotherapy (PFP) is a Physical Therapy Clinic in Australia devoted to the ongoing education of today's young dancers. PFP produces online resources to improve the knowledge base of dancers and teacher alike, to bridge the gap between sports medicine and the physical practice of all dance forms.

To find out more about other resources to help your child's development visit:
www.theballetblog.com

Contents

Acknowledgements.....	i
Contents	i
Forward.....	iii
Section 1 – Dance Nutrition.....	1
• Part 1 Nutrition For Dancers	5
➤ Optimal nutrition.....	7
➤ Dysfunctional nutrition	10
➤ Vitamins and minerals in different foods.....	11
➤ Eating on the go	14
➤ Injury recovery	15
➤ Soft drinks	16
➤ Vegetarianism.....	17
➤ Supplements.....	20
➤ The GI diet.....	21
➤ Vitamin tables	22
• Part 2 Eating Disorders	31
➤ Disordered eating.....	33
➤ Eating disorders in dancers	35
➤ Dealing with a suspected eating disorder.....	36
➤ The female athlete triad	38
➤ Treatment options.....	40
Section 2 – The Physical Development of a Dancer.....	47
• Puberty	49
➤ Delayed growth.....	50
➤ Headaches.....	51
➤ Early development.....	52
• Stretching and Flexibility	53
➤ Reduced flexibility	54
➤ Partner stretching.....	55
➤ Hypermobility	56
➤ Yoga vs Pilates	58

Contents

Section 2 – The Physical Development of a Dancer (*continued*)

- Training Techniques and Injury Prevention..... 61
 - Working with leg weights..... 62
 - Hours of training 63
 - Overtraining 64
 - Injury prevention..... 66
- Growth Related Injuries 67
 - Osgood Schlatters disease..... 68
 - Severs disease..... 69

Section 3 – The Psychological Development of a Dancer..... 71

- Introduction..... 73
- Formation of identity..... 74
- “Who am I? Why am I here?..... 75
- What are her values?..... 76
- Changing focus 77
- Perfectionism..... 78
- Dealing with nervousness..... 79
- Recovering from injury 80
- Coping with rejection..... 82
- Body image..... 83
- Adjusting to a new school 84
- Competition 85
- The effect of consumerism on identity..... 87

Section 4 – Choosing a Dance School and Teacher 89

- What to look for in a dance school..... 91
- Are competitions important? 93
- Personality clashes 94
- Career choices..... 96

Section 5 – The Pre-Pointe Stage..... 99

- Frequently Asked Questions (FAQ)

Section 6 - Beginning Pointe work 119

- Frequently Asked Questions (FAQ)

References..... 132

Forward

The world of dance is a fascinating one, and one that can empower our children, building them into strong young men and women. Being involved in dance gives our children the opportunity to develop wonderful skills that are often lost in our progressively dysfunctional society. It demands discipline, focus, respect, develops organizational skills and promotes confidence in standing up in front of others; skills that many of us wish had been engrained more in our childhood. Ballet is an elegant, classical and refined art form, requiring technical perfection and controlled strength, while all forms of dance help develop different areas of physical strength, artistry, emotional connection, musicality and exploration of movement.

In a world where the incidence of adolescent diabetes and obesity is rapidly increasing, and where virtual worlds are often far more attractive than the environments we live in, dance gives students a healthy physical outlet. Students learn training techniques and postural control that can prevent numerous common complaints as they mature, as well a respect for their body that can last a lifetime.

However, the world of dance can also be superficial, demanding, obsessive and downright cruel. As an aesthetic competition 'sport' extreme pressure can be placed on students to push their physical boundaries and manipulate their bodies to fit a subjective ideal. This can develop complexes about their physique, negative self talk, eating disorders, and chronic injuries from over-training. Students can work for years on conditioning their bodies only to find it is impossible to get work in their preferred genre in the industry - due to subjective factors outside of their control, such as their height.

Many parents are understandably concerned at their children participating in an activity that has the potential to harm them in any way. This is especially true in relation to girls progressing onto pointe. As a huge number of dancers parents were not dancers themselves, they often have no-one but the studio owner and local dance teachers to turn to with any questions or concerns.

My goal in creating this document was to create a supportive text for families to refer to whenever they have any questions related to their children's involvement in dance. It can be used by referring to each of the different sections as needed, or be read from cover to cover, the choice is yours. It is designed to help you grasp the concepts and realities of many aspects of dance and answer many of the common questions parents all over the world have. I have kept it as a free download so that anyone who has access to the internet, wherever they are in the world can use it.

My overall goal is to educate dancers, their parents and their teachers in safe dance practices that will keep student healthy while enabling them to achieve their goals. I am passionate about the education of young dancers, empowering them to improve themselves, and develop the strong stable bodies needed to pursue any form of career in any form of dance. Even for a purely recreational dancer, the benefits of learning the true capacities of their own body are priceless.

Lisa Howell – Physiotherapist

The Perfect Pointe Parents Manual

SECTION 1

Dance Nutrition

Part 1 – Nutrition for Dancers

Part 2 – Eating Disorders

Dance Nutrition

I am going to start with the one aspect of dance that worries parents the most, yet is rarely talked about. The relationship between dance and eating disorders. One of the first things to remember is that this is definitely an issue that is not only confined to dancers, but is evident in many other aesthetic and performance based sports including athletics, gymnastics and rhythmic gymnastics. The issue of eating disorders is also prominent in teenage girls who do not play any sport at all, so a lack of involvement in dance is no guarantee against issues with eating patterns.

I am a Physiotherapist and do not claim to be a specialist in eating disorders. However, I have been involved with dance for many years and as well as my personal experiences with issues around food; I have helped many girls who have had serious issues with their eating patterns in both professional and personal settings. I know just how hard it is to stand in class, day after day, in a skin tight leotard alongside many other girls. I have felt the pressures that are placed on a dancer both by others and by herself to attain the perfect physique, and the damage that this can do both physically and psychologically. I have noticed that 'eating disorders' are often written about as a clear cut condition, that a girl either has or doesn't have. This creates a lot of stigma around the issue, and may be the reason for the denial of any possible problem for some students. However, I do not believe that the situation is that simple.



The chapters for “Nutrition for dancers” and “Eating disorders in dance” could actually be written in two very separate sections, as surprisingly, eating disorders often have very little to do with food. However; as they can interrelate, and as changes in nutrition are often warning signs for eating disorders, I have kept them in the same section.

Even when there is no concern about the presence of an eating disorder, many parents feel frustrated at the lack of easy to access information about nutrition and dancing, and are not sure what they should be encouraging their girls to eat. Dancers are athletes, yet unlike other high level sports, they are often given very little guidance on optimum nutrition to maximise their performance. Track and field athletes, swimmers and competitors in so many other sports codes are given lots of information on nutrition in relation to performance, however for some reason this is not really done in competitive dance circles. Many dancers (and their parents) actually know very little about what they really should and shouldn't be putting into their bodies.

I believe that in nutrition for dancers, athletes and in fact any human being moves along a continuum that extends from *Optimal Nutrition*, through *Good Nutrition* to *Dysfunctional Nutrition*. In these categories the focus is on the *kind of food* a dancer is consuming.

◆
Optimal
Nutrition

Good
Nutrition

Dysfunctional
Nutrition
◆

Awareness of what your daughter needs to put into her body and how food can actually help her perform better will help her develop a healthy attitude and respect for food, rather than seeing it as the enemy. Many parents feel that it is hard to get their daughter to change what she eats, however if the quality of her performance is at stake, it is amazing what she will do! Far too often we know the theory, but find it hard to put all that knowledge into practice. I have tried to answer some of the most common questions that parents have in relation to nutrition in dancers, and give practical ideas that can be implemented immediately into her diet immediately.

Once the situation becomes more about the *emotional needs* and the *psychological driving forces* behind any altered patterns of eating, we begin to discuss *Disordered Eating* and various different *Eating Disorders* (of which there are many different kinds). This can happen from any stage of the nutrition continuum, and is quite common in dancers and other female athletes. I look at early warning signs and practical tips to help deal with any issues at an early stage. There are so many ‘reasons’ why people develop disorders with their eating, and this guide is by no means all there is to know, however it is designed to increase awareness about the various contributing factors that may be involved.

This part of The Perfect Pointe Parents Manual is divided into two parts to fully address the two separate parts of this topic.

- Part 1 - Nutrition for Dancers
- Part 2 - Eating Disorders in Dancers

Part 1

Nutrition for Dancers

- What is the optimum nutrition for a dancer?
- What is Dysfunctional Nutrition?
- I know that my daughter should be getting lots of different nutrients, but how do you know what is in what foods?
- My daughter often has to grab food on the go, and is at dancing for hours on end at the weekends. What should she eat while she is at ballet that will give her energy but not make her feel bloated?
- My daughter has injured her back and is off dancing at present (she is 15). She is terrified of putting on weight as she can't exercise. What should she be eating when she is not training?
- My daughter seems to live on Diet Coke. Is this bad for her in the long term?
- My 14 year old daughter has decided that she wants to be vegetarian, but I am worried that she will not be eating enough protein. How much protein does she need and where can she get it if she is not eating meat?
- I have read a lot about athletes taking extra multi-vitamins, protein and calcium. Should my daughter be taking any supplements?
- What is the low GI diet, and is it good for dancers?
- Vitamin and Mineral Tables

Optimal Nutrition



What is the optimum nutrition for a dancer?

‘Optimal nutrition is the ability to use what we eat to maximise and enhance our performance, development, co-ordination, reflexes and growth’

Far too often dance students live on a high sugar, high stimulant diet using diet coke and chocolate to get themselves through competitions and long days of training. Obviously this is not an ideal situation as the body needs good nutrition to perform at its optimum capacity. Being able to *finely tune* the diet of a dancer and *manipulate* it depending on the demands of training, performance or recovery can make a huge difference to the incidence of injuries, recovery from injury, energy available for performance as well as influencing the proportion of lean muscle mass to body fat.



As every body is different, it often takes a period of adjusting and readjusting any dietary changes for a dancer to find her own optimal nutritional program. This is obviously most important to the full time student and professional dancer rather than the recreational student, yet awareness of ways of modifying their diet may help young dancers begin to understand the value of good nutrition. *Understanding how food can help the body* is a wonderful way to realise that it can be your ally, rather than your enemy. I feel that this is essential in avoiding serious negative relationships between the dancer and her food. Consulting a good sports nutritionist who deals with dancers or gymnasts is a very good way to introduce your daughter to being aware of using food to her advantage, rather than being scared of it.

In order to begin to manipulate her diet for optimal performance, recovery and injury prevention, the dancer must first develop *good regular nutritional habits*. This is essential at any age, and helps provide a stable base to refer back to when fine experimental changes are made. It is important for both parent and child to not get overly serious about any one particular area, and that food remains enjoyable for the dancer. It is important that this is something that she chooses to do to make her dancing better, rather than being told she must do it by her parents. This helps ensure that she is careful in her nutritional choices when out with friends or anywhere without her parents. If a certain food is “not allowed” she will often crave this particular food, and sneak it when she has the chance.

- **General Nutrition:**

The daily, weekly and seasonal cyclical eating patterns of a dancer need to encompass foods that supply all of the required nutrients that a body needs to build and rebuild its cells. Obtaining nutrients from many and varied sources ensures that essential micronutrients that are needed in small quantities are not missed. A good basic guideline is to have at least half of the quantity of the evening meal based on fresh vegetables to provide the optimal variety of vitamins. Using seasonal vegetables in different combinations, especially taking care to use different colored vegetables together will help ensure optimal nutritional value. The other half of the meal should cover other essential requirements such as protein; carbohydrate and fat intake (see the following food tables for more information on where to get what vitamins).

- **Carbohydrate Loading:**
(N.B. Please consult a sports nutritionist before attempting this technique). Many other sports disciplines use a technique of increasing carbohydrate intake the day before and prior to competition to ensure that enough energy is available within the muscles throughout the period of exercise. This is obviously more important during long rehearsals and shows, rather than a three minute routine, however there is unfortunately little research into using this technique specifically for dancers. It is important to note that the carbohydrates should still be nutrient rich, so chocolate is unfortunately not the best option!
- **Energy Sustenance During Performance:**
During long rehearsals, small carbohydrate rich snacks can help keep energy levels high. Good nutrient rich snacks that have a good source of carbohydrates include:
 - Wholemeal/grainy bread or sandwiches.
 - Small handful of dried fruit, nuts and seeds.
 - Rice cakes with nut butter or hummus.
- **Post Exercise Recovery:**
After a period of dancing, the muscles require an adequate supply of carbohydrate to replenish the muscle glycogen stores. Because the fastest rate of replacing glycogen occurs in the first two hours following exercise, it is important to eat some form of carbohydrate as soon as possible after a long or strenuous exercise period to refill muscle stores and be ready for the next activity. Foods may be eaten at this time that may not be as appropriate before or during exercise such as some dairy products.
 - Plain or fruit sweetened yoghurt (avoid dairy products before dancing).
 - Fruit smoothies.
 - Beans, Lentils or brown rice.
 - Sweet potato.
- **Protein Replacement:**
Breaking down and rebuilding each muscle is how we increase its strength, and as dancers are constantly creating microtears in their muscles when training and performing they need a reliable source of all the essential amino acids needed to rebuild their muscles. If the required nutrients are not available, and these microtears accumulate and injury will occur. Lean chicken, lamb, beef, fish, seafood, nuts and soybeans are all good sources of protein, but try and ensure high quality of any protein. Use organic or hormone free meats wherever possible, and avoid processed or preserved meats. It is better to have a small amount of quality protein, than a larger amount of a lesser standard.
- **Rehydration:**
After long performances and workshops it is important that the fluid and electrolytes lost in performance are replaced. Rehydration requires special attention as thirst is not a good indicator of true restoration of body fluids. It is important to replace the sodium (salt) lost in sweat, as this helps in maximising the transfer of the fluids into the body cells. Salt does not necessarily need to be in the drink, but may be eaten alongside the fluid (ie; salt sprinkled over tomatoes served on rice cakes). Many sports drinks are marketed as ideal for this purpose, however many of them have too much sugar and artificial flavours for regular use. If they are used, dilute them with extra water.

- **Avoid Processed or Refined Foods:**
As so many nutrients are lost in methods of food processing, it is best for dancers to eat food as close to its natural state as possible. The closer a food is to its natural state, the more nutrients it will have and the less potential for allergy or “side effects.” For instance, a whole apple will retain far more nutrients than the same amount of canned fruit, even if it is in natural juice, and will not contain any of the preservatives that help extend the shelf life of so many of the bottled foods we eat. It is much better to have a handful of fresh berries than a dried fruit roll-up, and freshly cooked brown rice will provide far more nutrients than rice crackers made with white rice flour. Processed cheese contains many preservatives, flavorings and colourings than a slice of ‘real’ cheese, and will often contain more fat.
- **Styles of Food Preparation:**
Basically the less you do to food, the better. Raw, or lightly steamed vegetables and fresh fruits, without additional sweet or creamy sauces are the basis of the optimum dancers diet. Add in slow cooked legumes, lean protein and various seeds, and almost all nutritional bases are covered. Using a slow cooker is an ideal way to make a simple, delicious meal that retains lots of nutrients without added fat, and is ideal in the winter months. Avoid deep frying food, however gently cooked vegetables in an asian stir-fry, using a little good oil or stock can be a very healthy and tasty way to increase the number of vegetables eaten.
- **Keep Eating ‘Good’ Fats:**
In a bid to avoid putting on excess weight, many dancers attempt to cut out all fat from their diet. This is a terrible mistake, as the body needs some fat to function efficiently. Saturated and monounsaturated fats are not necessary in the diet as they can be made in the human body. However two polyunsaturated fatty acids (PUFAs) that cannot be made in the body are *linoleic acid* and *alpha-linolenic acid*. They must be provided by diet and are known as *essential fatty acids*. In the body PUFAs are important for maintaining the membranes of all cells; for making prostaglandins which regulate many body processes which include inflammation and blood clotting. Another requirement for fat in the diet is to enable the fat-soluble vitamins A, D, E and K to be absorbed from food; and for regulating body cholesterol metabolism.
- **Linoleic Acid (Omega 6 family)** can be found in vegetables, fruits, nuts, grains and seeds. Good sources are oils made from:
 - Safflower.
 - Sunflower.
 - Evening Primrose.
 - Corn.
 - Soya.
 - Pumpkin.
 - Wheatgerm.
- **Alpha-Linolenic Acid (Omega 3 family)** please note that fish is not the only source of omega 3 acids. Flaxseed oil actually contains twice as much omega 3 as is found in fish oil!
 - Flaxseeds (linseeds).
 - Mustard seeds.
 - Pumpkin seeds.
 - Soya bean.
 - Walnut oil.
 - Green leafy vegetables.
 - Grains.
 - Spirulina.
 - Rapeseed oil (Canola).

Dysfunctional Nutrition



What is Dysfunctional Nutrition?

While **‘Optimal Nutrition’** is manipulating an already good diet to maximize performance and recovery, and **‘Good Nutrition’** is covering all vitamin, nutrient amino-acid and essential fatty-acid requirements, **‘Dysfunctional Nutrition’** is defined by eating foods that really give little or no nutritional value. Whether they eat these foods due to convenience, taste preference, perceived cost or any other reason, some dancer’s live on a diet of “empty calories”. While the initial cost of some of these foods may be low, the actual cost on the dancer is high, with more time off due to injury, medical bills as well as battles with weight gain and loss due to lack of satisfaction with food.

- **Potato Chips/Crisps:** especially ones made from powdered potatoes such as Pringles (Check out the label and you will see all the other things that go in there... Citric acid, Acetic acid, Sodium acetate). The fat content and type of fat is also on the not so great.
- **Crackers Made from White Flour:** Any goodness from the grains that were originally used got sifted out with the husks. Try to use whole grain versions or grainy bread, and watch the fat and sugar content between varieties.
- **Chocolate:** Yes it does have calcium, and dark chocolate may have some antioxidant qualities, but your average chocolate bar is more detrimental than positive. A little bit now and then is ok, but as a daily addition to her diet is not such a good choice.
- **“Sports Drinks”:** With all their claims of including all the vitamins and minerals you could ever need, many sports drinks contain way too much sugar, and enough artificial colorings and flavorings to turn your mouth blue (literally!). Drink in small quantities, diluted with water if at all.
- **Fruit Juices and Fruit Drinks:** While juice from fruit is good, fruit juices can contain a lot of calories (and preservatives), without the fiber that comes from eating the whole fruit. Considering it takes about 4-5 oranges to make a glass of juice, try and get dancers to eat the real thing, or drink juice diluted with mineral water. “Fruit drinks” are worse, with as little as 5% actual juice and lots of extra sugar, color, flavor and preservatives.
- **Processed Cheese Slices and Dips:** Again, check the label for a long list of odd ingredients that are better left in the pharmacy. While they may have a long shelf life and are easy to pack, a slice of real cheese will be a lot more nutritious.
- **Soft Drinks/Soda Pop:** Drinks that were once a treat on special occasions have now often replaced water as the main source of fluid intake for many children. Again, the colors and flavors used can cause problems with attention, as well as interfere with the absorption of other nutrients. The sugar and caffeine level will give them energy in the short term, but zap energy in the long term. The caffeine in cola drinks may also deplete calcium in the developing bones especially in those girls who avoid dairy products.

Vitamins and Minerals

I know that my daughter should be getting lots of different nutrients, but how do you know what is in what foods?

‘Variety is the spice of life’

Maintaining variety in colors of vegetables, different styles of cooking, herbs and spices helps ensure that a wide variety of vitamins and minerals are being consumed, and keeps things interesting. If this is started from a young age, rather than succumbing to the marketed “children’s foods” there will be less resistance to trying new things in the later years. Vital minerals and nutrients that are often lacking in young dancers diets are listed below, along with great natural sources of each substance.

- **Iron:** Iron is a very important trace mineral as it is part of the hemoglobin molecule that carries oxygen in the blood. Oxygen is used for the production of energy in muscle cells. Dietary iron is of two types, the *heme*, found in meat, and *non-heme*, less absorbable type found in plants. Dancers should include some *lean red meat* in their diet to obtain adequate iron. However, if they are vegetarians, then they should be careful to ingest foods rich in iron, like *whole grains and green leafy vegetables*. Because *vitamin C* increases the absorption of non-heme iron, it should be taken alongside these foods.
- **Zinc:** *Red meat* is also a good source of zinc which is a component of several enzymes important in energy production and plays a role in red blood cell production. Other sources include *Almonds, fish and seafood, whole grains and yogurt*. (There are 9 trace minerals but iron and zinc are the most important because of the frequent deficiency of these minerals in dancers.)
- **Calcium:** Many dancers limit their intake of calcium rich foods due the common assumption that dairy products have a high fat content. As there is a limited time period for uptaking and storing calcium, attaining a good bone density is very important in the adolescent years to help develop a strong skeletal system that will with-stand the demands of a long career. It is also essential that dancers consume adequate quantities of calcium as the incidence of stress fractures in the feet of young dancers is quite high. The richest source of calcium is in *dairy products*; however, you can also increase your intake by eating non-dairy sources of calcium like *green vegetables, sunflower seeds and nuts* if dairy products encourage allergies.
- **Vitamins D & K:** While calcium is important, vitamins D and K are equally important. Vitamin K is commonly found in *dark leafy greens such as spinach and kale*. Some studies have shown vitamin K to be as effective as some drugs prescribed to treat osteoporosis. Vitamin D also helps the body absorb calcium. Since skin produces vitamin D when exposed to sunshine, it is okay to spend *a little* time outdoors. (Getting burnt is not!) Twenty minutes per day with just your face and arms exposed should be sufficient. During the winter months when the sun is scarcer, supplement your diet with foods such as *cod liver oil*, which contains large quantities of vitamin D, or *salmon and eggs*.

- Vitamin A, C and E: As well as assisting the uptake of dietary iron, these vitamins function as antioxidants that are necessary for the repair of over-stressed muscles and are needed to help muscles recover from strenuous classes and rehearsals. There is evidence that Vitamin C and E help combat the “free-radicals” that are produced during exercise (as byproducts of muscle contraction) and which are responsible for triggering the inflammatory response that causes post-exercise muscle soreness. They may actually help prevent injury by preventing excessive free-radical damage to muscle cells. Vitamin C is available in many fruits especially *oranges, grapefruit, papaya, kiwifruit, guava and tomatoes, cranberries and blackcurrants, spinach and broccoli*. Vitamin E is available in *wheat germ oil, almonds and sunflower seed kernels*.
- B Vitamins: The B vitamins play important roles in energy production (especially thiamin, riboflavin, niacin and Vitamin B₆) and in red blood cell formation (folic acid and vitamin B₁₂). Deficiency of these vitamins can impair performance. Vitamin B comes from a number of natural sources, including *potatoes, bananas, lentils, chilli peppers, liver oil, liver, turkey, and tuna*. *Nutritional yeast* (or brewer's yeast) and *molasses* are especially good sources of Vitamin B. ‘*Marmite*’ and the iconic Australian spread ‘*Vegemite*’ bills itself as "one of the world's richest known sources of Vitamin B".

To make it all a little easier, here is a list of good healthy food choices with some of the nutrients they contain (they are in alphabetical order, not order of goodness!) There are many tables like this available from varied sources. Try and find one that covers food you commonly eat, and work out where any ‘missing links’ may be.

(Ref: AskDrSeers.com)

Top Food	Important Nutrients
Avocado	B vitamins, vitamin A, vitamin E
Chickpeas	(especially tasty when made into homous) protein, fiber, folic acid, vitamin B-6, calcium, zinc, and iron
Eggs	protein, vitamin A, riboflavin, vitamin B-12, folic acid
Fish (salmon, tuna)	protein, niacin, vitamin B-12, zinc, iron, omega-3 fatty acids
Flax seeds & flax oil	omega-3 fatty acids, seeds also rich in protein, fiber, thiamin, riboflavin, niacin
Blueberries	rich source of antioxidants, blueberries are known as the brain berry
Lentils	protein, fiber, riboflavin, vitamin B-6, folic acid, iron; most intestines-friendly legume
Spinach	rich in folic acid, fiber, vitamin C and calcium
Tofu (firm)	protein, fiber, vitamin A, thiamin, folic acid, calcium, zinc, iron, unsaturated fats, anti- cancer phytonutrients
Tomatoes	vitamin A, vitamin C, health-promoting phytonutrients, especially lycopene
Whole grains	protein, fiber, vitamin A, thiamin, riboflavin, niacin, vitamin B-12, folic acid, zinc, iron
Yoghurt (plain, nonfat)	protein, calcium, zinc, folic acid, riboflavin, Lactobacilli for colon health

Honourable Mention	
Almonds	protein, fiber, riboflavin, calcium, zinc, iron, vitamin E, unsaturated fats
Artichokes	protein, fiber, vitamin A, vitamin C, thiamin, riboflavin, niacin, folic acid, calcium, zinc, and iron
Broccoli	vitamin A, vitamin C, folic acid, beta carotene, anti-cancer phytonutrients
Cantaloupe	carotenoids, vitamin A, vitamin C, beta carotene
Garlic	heart-healthy and anticancer phytonutrients
Orange	fiber, calcium, vitamin A, folic acid, vitamin C, carotenoids
Papaya	fiber, vitamin C, folic acid, carotenoids
Peanut butter	protein, fiber, niacin, zinc, vitamin E
Peppers (sweet & hot)	vitamin A, vitamin C, B-6, health-promoting phytonutrients, folic acid
Pink grapefruit	vitamin C, fiber, carotenoids
Sunflower seeds	protein, unsaturated fats, fiber, niacin, folic acid, zinc, iron, vitamin E, selenium
Turkey	protein, niacin, B-12, zinc, iron

Dancers need to be aware of this kind of information for their own performance benefit. If they are eating foods simply because “they have to” or “because Mom says so” it will rarely last. Often when out of the reach of their parents they will have the temptation to indulge in foods that they know they shouldn’t eat, or avoid eating for fear of putting on weight. If they know the repercussions of what they eat on their own performance then adhering to a good diet is much more likely. I prefer to focus any education on nutrition on what people ***should be eating*** rather than focusing on what they ***shouldn’t be eating***. This is very important as most girls that are advised about their diet are continuously told “you shouldn’t be eating this” or “cut out that” which can result in serious nutrient imbalances.

For further details of the vitamin and mineral contents of specific foods, consult the tables at the end of the nutrition section.

Eating On The Go

My daughter often has to grab food on the go, and is at dancing for hours on end at the weekends. What should she eat while she is at ballet that will not make her feel bloated?

Beginning healthy diet habits does begin at home, yet when it comes to the teenage years it is often hard for parents to govern what their children are eating. Pre-teens and teenagers often begin to have more meals out of the house, either with friends, or on the run. Knowing how different foods affect them, and knowing how to make healthy choices can reduce the chances of her deciding to skip meals, or putting on too much weight from eating “fast foods”. Depending on the age of the child, discussing food choices, and how they will affect their dancing and performances may help it become less about you telling them what they can eat, and more about them making healthy lifestyle choices for themselves.

The biggest downfall of most active pre-teens and teenagers is the need to grab food on the go. Cheap and fast food tends to lack the nutrition that these active bodies need, so knowing which things are healthier choices, and ensuring that meals at home are especially nutritious is important. Being a little prepared can go a long way towards the health of your child’s diet, and may save you financially as well. Get your child involved in planning snacks for each day, and encourage them to carry bottled water at all times.



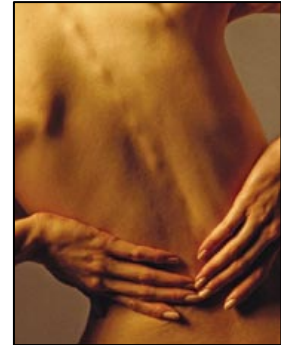
- Try adding a bag of carrot sticks and a dip such as hummus to a lunch box instead of potato crisps or packaged snacks.
- Invest in good quality fruit; apples with crunch and easy to eat things such as mandarins and bananas, instead of baked sweets.
- Switch to multigrain breads or rolls. Keep the fillings separate in transit if kids complain of soggy sandwiches!
- Use thin wraps or Lebanese style bread rather than thick cut bread and rolls.
- A small handful of mixed nuts (not peanuts) are a great snack in between dance classes, as they provide energy without bloating.
- Avoid processed foods wherever possible. It is much better to consume foods in their natural state, as whenever a process is applied, nutrients are lost and fillers may be added.
- Slow release carbohydrates are an important fuel during long rehearsals. While a high protein, low carbohydrate diet may work well for some adults to maintain their weight, growing bodies do need a balanced diet.
- Some foods have surprisingly high sugar contents. Check out the GI (Glycemic Index) and GL (Glycemic Load) values of common foods you and your children consume at <http://www.mendosa.com/gilists.html>
- If she is buying a snack from a machine, advise her to look for nuts, cereal bars or fruit to avoid too many unwanted nasty additives!

Injury Recovery



My daughter has injured her back and is off dancing at present (She is 15). She is terrified of putting on weight as she can't exercise. What should she be eating when she is not training?"

If a dancer has an injury they must take special care of their diet, as good nutrition provides the building blocks for rebuilding muscle and other damaged tissues. A wide range of vitamins and minerals is also needed to help to boost immunity, especially in more chronic conditions. However this is often a time when dancers begin to severely restrict their food intake for fear of putting on weight. Restricting intake may in fact alter the rate of metabolic processes as the body moves into energy conservation mode, making it harder to moderate body weight in the future. Areas to make special note of include;



- **A wide variety of protein sources** is essential to provide all the amino acids that are needed to reconstruct the damaged tissues. Synthetic or isolated natural amino-acid products (available from health stores) may be used to enhance recovery, but should not be used to replace natural sources. Use them more to ensure a comprehensive intake of all of the essential amino-acids each day. Take care that your daughter is eating small amounts of different types of protein, and consider increasing the protein to carbohydrate ratio.
- Care must be taken to alter **quantities of food**, especially carbohydrates, if the dancer is not maintaining her pre-injury level of activity. Reducing portion size, but maintaining frequency of meals will help keep all systems functioning at optimal levels.
- Note the **Glycaemic Index (GI)** and **Glycaemic Load (GL)** values of foods. Choose the lower value between two similar foods to reduce fluctuations in blood sugar levels, and therefore avoid sudden increases in insulin production.
- There is recent evidence that increased doses of **Vitamin C and E** can help with tissue regeneration. Vitamins C and E are Antioxidants that can help reduce the destructive effect of 'free-radicals' on muscle cells, to prevent injury and aid recovery.
- If the injury involves any fracture or irritation of the bone, make special note of **Calcium intake** and the things that affect this. **Vitamins D and K** can increase the uptake of calcium, and load bearing exercise is important to maintain bone density in the uninjured limbs. While **caffeine** has been shown to cause a slight and temporary rise in the level of calcium excretion, studies also show that adequate calcium consumption can offset the potential effect of caffeine on bone density.

She must also look into other forms of exercise that can help her keep all the areas that are not injured in optimal condition, and recover the injured area as quickly as possible. Studio Pilates, specific physiotherapy exercises, gentle yoga, walking and swimming may all assist recovery.

Soft Drinks



**My daughter seems to live on Diet Coke.
Is this bad for her in the long term?**

Many girls drink Diet Coke, or other soft drinks, frequently during the week. This has now become the norm, so it may be hard to get your daughter to reassess how much she drinks, yet if it is explained that it is better for her dancing, there may be a better chance of this happening. While many girls think that Diet Coke is much better than regular soft drinks, they may have to think again. Artificial sweeteners are currently being reassessed as to their real safety in our diets and may not be as helpful as many girls think. Many studies are now pointing to the fact that *aspartame may actually stimulate appetite* and bring on a craving for carbohydrates, resulting in binge eating. Natural sugars can play a role in suppressing hunger, reducing the likelihood of overeating.

Soft drinks are a problem not only for what they contain, but for what they push out of the diet. Heavy soft drink consumption (both regular and diet) is associated with lower intake of numerous vitamins, minerals, and dietary fiber, and the ones containing caffeine may increase elimination of calcium. This effect is reinforced by the fact that the more soft drinks youths consume, the less milk based drinks are taken. A lack of calcium can lead to lower bone density, and an increased risk of stress fractures in the feet and lower legs.



While the sugar and caffeine hits in stimulating drinks may give children energy in the short term, they can actually deprive the body of many of the building blocks it needs to build muscle and to grow. Students get used to the ‘hit’ that they get from such stimulants, and over a period of time become rather numb to such effects. This results in them drinking more and more to get any effect. (I had a friend at university who would drink at least a 1.25L bottle of Diet Coke every day with no apparent effect from the caffeine. Needless to say, she has since spent a lot on dentist bills!).

Recent studies indicate that the preservative E-211 which is present in most soft drinks may damage mitochondrial cells, which contain some of our most important DNA. This damage is most probably permanent, and we will not know its true long term effects for several generations.

How do I stop her drinking it? While we all know that soft drinks are not good for us, a total ban on them in pre-teens and teenagers, can often result in them ‘overdosing’ when out



with friends. Rather than totally banning something they may have been drinking for years, provide healthy alternatives at home, and treat it more as an “every-now-and-then” drink. Once the pressure is off, many children decide that they like the alternative drinks anyway, especially if they know that they may have a detrimental effect on their dancing.

Vegetarianism

My 14 year old daughter has decided that she wants to be vegetarian, but I am worried that she will not be eating enough protein. How much protein does she need?

There are many other protein sources besides meat that a dancer can use if she wants to become a vegetarian; however it does take some skill in planning and combining foods to ensure that none are missed. The main issue is usually the potential lack of complete protein, available iron and omega-3 (if she also decides not to eat fish) in a teenage vegetarian diet. Becoming a healthy vegetarian is not simply about cutting out meat, but about learning how to get all her required needs from non-meat sources.

One of the first things to determine is *why* she wants to become vegetarian, as there are many different reasons. Is the decision due to;

- Weight control?
- General health?
- Moral beliefs?
- Religious beliefs?
- Because she does not like the taste or texture of meat?
- Allergies?
- Peer encouragement?
- Any other reason.

She may also need to elaborate on just how vegetarian she wants to be, as there are many different types.

- **Veganism** (also **strict** or **pure vegetarianism**) is a philosophy and lifestyle that seeks exclusion of all animal products from diet and attire, whether or not their production has involved the actual death of an animal (dairy, eggs, honey, wool, silk, down feathers, etc.). **Vegans** do not use or consume animal products of any kind. The most popular reasons for becoming a vegan are concerns for animal rights, the environment, or human health, and spiritual or religious concerns.
- **Vegetarianism** is the practice of not consuming the flesh of any animal (including sea animals) with or without excluding other animal derivatives such as dairy products or eggs.
 - **A Lacto-vegetarian** is a vegetarian who eats dairy products such as milk, cheese, yoghurt butter and cream, but who excludes eggs. Cheeses that include rennet or yoghurts that include gelatin are also avoided. This choice is usually made by individuals who believe that eating eggs is killing an unborn/unhatched animal, where as consuming dairy products does not involve killing.
 - **Ovo-vegetarians or Eggetarians** are vegetarians who eat eggs but not meat or dairy products. This is common if there is a problem with lactose tolerance.

Ethically, some people believe that drinking cow's milk supports the meat industry as cows must have calves before producing milk, whereas hens can lay eggs freely. If a dancer continues to eat eggs this does provide a good source of all the essential amino acids and a significant amount of protein. Eggs also provide various nutrients including vitamin A, riboflavin, folic acid, vitamin B6 & B12, choline, iron, calcium, phosphorus and potassium.

- **Lacto-ovo Vegetarians** are those who are willing to consume both dairy products and eggs.

Once you know what foods she does not want to eat and why, you can work together on figuring out other ways of getting all the vitamins and minerals that she needs as a dancer to prevent illness and injury. As one of the main issues in a vegetarian diet is the lack of "complete protein" that is easily available from meat, vegetarians can use food combining to create these proteins. Although cheese and eggs are vegetarian foods, overloading on them may introduce too much fat and cholesterol into the diet. Vegetarians must therefore 'combine' certain foods in order to obtain the complete protein they require. The two foods which must be combined are **grains** and **legumes**.

Grains + Legumes = Complete Protein

- These foods don't have to be eaten at the same time - within a few hours of each other is okay. In fact if her vegetarian diet includes regular servings of grains and legumes, her protein intake should be fine.
- A few common examples of grains/legumes combinations include:
 - Peanut butter sandwich with wholemeal bread.
 - Baked beans on wholemeal bread.
 - Pea soup & bread roll.
 - Homous & pita bread.
 - Tacos & beans.
 - Pasta & cheese.
 - Muesli & milk.
 - Brown rice & lentils.

As well as combining grains with legumes, vegetarians can maximize their protein intake by including foods from at least two of the following groups, in their regular meals.

- Dairy foods.
- Nuts & seeds.
- Legumes.
- Grains.



A Balanced Vegetarian Diet - A Daily Guide

As a basic guide, a balanced vegetarian diet should include the following each day:

- **Grains/cereals – 3 or 4 servings**
These provide energy, fiber, B vitamins, calcium and iron.
Grains include: Wheat, rice, barley, corn, oats, rye, millet, buckwheat.
Pasta, rice, wholegrain breakfast cereals, muesli, porridge, all types of breads/tacos etc.
- **Legumes, nuts or seeds – 2 or 3 servings**
These provide protein, energy, fiber, calcium, iron and zinc.
Legumes include: Lentils, beans, peas, garbanzos (chick peas), peanuts, and soya beans.
Nuts include: Almonds, walnuts, pine kernels, brazil nuts, cashews, pecans, and hazelnuts.
Seeds include: Sesame, sunflower, pumpkin.
- **Fruit and Vegetables – 4 or 5 servings, including**
Fresh fruit - for vitamin C;
Dried fruit - for fiber and iron.
Dark green leafy vegetables - for folate, calcium and iron;
Red, orange and yellow vegetables - for beta-carotene;
- **Dairy or soya products – 2 servings**
These provide protein, energy, calcium and other minerals, vitamin B12, vitamin D.
- **A small amount of oil, margarine or butter**
This provides energy, essential fatty acids, vitamin E (plant oils) and vitamins A and D (margarine or butter). Preferred sources are in oils made from seeds (flaxseed), or grains (wheat germ).

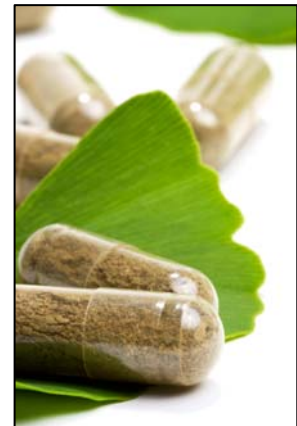
As one of the major concerns in non-meat eating, menstruating dancers is the lack of iron, vegetarian dancers must take care to consume enough non-heme sources of iron each day. **Iron from plant foods** is less easily absorbed than iron from meat and meat products, so greater quantities are needed. Fortunately, **Vitamin C** greatly improves iron absorption and vegetarian diets are generally rich in vitamin C. It is recommended that plant food sources of iron are consumed at the same time as vitamin C rich foods or drinks to facilitate absorption. For example; include red capsicum (a good source of Vitamin C) in a healthy vegetarian stir fry with lots of leafy greens and sprinkle with sesame seeds or almonds. Good alternative sources of iron for vegetarians include *leafy green vegetables, legumes (including baked beans), dried fruit, brewer's yeast, wholemeal bread and fortified breakfast cereals.*



Supplements

I have read a lot about athletes taking extra multi-vitamins, protein and calcium. Should my daughter be taking any supplements?

Ideally, a dancer should be able to get all the vitamins and minerals she needs from her diet. However, sometimes, whether due to food intolerances, preferences or seasonal variations, she may not be getting all of the nutrients she needs from foods. Any supplementation should be on top of a balanced diet, and not be taken to replace one. They should always be prescribed by a qualified health professional, such as a Naturopath, Dietitian or General Practitioner with a special interest in nutrition. Obtaining supplements from a professional source such as this is important, as there are many different standards in the production of supplements, and the processes used may alter the quality and availability of the nutrient in question.



Some nutrients, such as vitamin C can be taken in larger quantities, as the body is capable of excreting any excess. However, some other minerals may accumulate in the body if taken excessively, and may cause more problems than were there initially. Especially when monitoring the levels of trace minerals.

Many athletes and body builders use protein replacement drinks and powders to refuel their body with the amino-acids needed to rebuild the micro tears in their muscles after training. While we don't want dancers to be building bulky muscles, protein replacement may actually be a beneficial step to take to help avoid injury. The training process in dancers is completely different than weight training, with the focus being on repetitive exercises to lengthen



muscles and develop fluidity, rather than to build bulk. However, this still results in slight damage to some muscle fibers in each training session that must heal quickly to avoid chronic injuries developing. Replacement of the essential amino-acids after training may help repair these fibers, while consuming foods that contain vitamin C and E will help avoid post exercise muscle soreness. Many protein drinks have too many "fillers" that may make the dancer feel too full. Instead, I would recommend using an isolated amino-acid complex such as the Musashi BCAA's (Branched Chain Amino Acids) or similar products, which provide the protein, but not the weight.

The GI Diet



What is the low GI diet, and is it good for dancers?"

The Glycaemic Index (GI) is a way of ranking food based on the *effect they have on the glucose levels in the body*. Choosing low GI foods may help maintain healthy insulin levels (important in prevention of later onset diabetes) and is good for use in less intense periods of training but needs to be used with caution in periods of high performance. Maintaining stable insulin levels is important in a dancer, as it helps her maintain her energy while dancing. In addition, strong fluctuation in insulin levels may result in the development of more abdominal fat, which is obviously undesirable in a dancer. This is not necessarily dependant on the percentage of fat elsewhere in the body, and excess weight in this area is often a warning sign that the dancer is eating too many simple carbohydrates (ie; chocolate!)

Some sources say that a dancer's diet should be composed of about 55-60% carbohydrate, 12-15% protein, and 20-30% fat. During heavy training and rehearsals the amount of carbohydrate should be increased to about 65%. The reasoning given is that carbohydrate is the major energy source in muscles. Dancers who do not ingest sufficient carbohydrate in their diet will compromise their ability to train because of low muscle glycogen levels. They may feel more fatigued during classes and rehearsals. As carbohydrates help replenish the energy burned in muscles during exercise, small snacks during and after performances will help keep energy levels high. Try and keep the snack nutritious in other ways, rather than resorting to a simple sugar hit!



The recent push for a “low carbohydrate diet”, such as the Aitkin’s Diet must be taken with caution. Reducing a high sugar intake is important for weight regulation and general health; however the dancer must ensure that healthy complex carbohydrates are not emitted as well. Complex carbohydrate foods are basically those in wholegrain form such as wholegrain breads, oats, muesli and brown rice. Complex carbohydrates are broken down into glucose more slowly than simple carbohydrates and thus provide a gradual steady stream of energy throughout the day. This is very important when doing several classes back-to-back, and during competitions.

“Low Carb” diets also typically involve a lot of protein and have high saturated fat content. While dancers should not cut out all fat from their diet, the fats that are included should be “good fats” from nuts, seeds and grains, avocado, olives and fish. These fats are essential to optimum cell growth and regeneration. Saturated fats from meats and meat products (butter, lard etc) are associated with high levels of heart disease and other illnesses, even in otherwise very fit individuals.

Vitamin Tables

In order to make it easy to work out how much of each vitamin in the foods you are eating, I have made some easy to use tables with the amount of each vitamin in a normal serve. Look up the foods you normally eat, and then see if there are other foods that you could add in or substitute to increase your intake of these essential vitamins.

Vitamin A

Vitamin A, also called retinol, helps your eyes adjust to light changes when you come in from outside and also helps keep your eyes, skin and mucous membranes moist. Vitamin A mostly comes from animal foods, but some plant-based foods supply beta-carotene, which your body can then convert into Vitamin A. The Recommended Daily Intake (RDI) of Vitamin A is 725-750mg per day for both females and males between the ages of 12 and 18. The following table gives you some basic guidelines as to the common foods that are rich in Vitamin A.

Good Sources of Vitamin A				
Food	Serving Size	Milligrams of Vit. A	%RDI F % of RDI for females aged 12-18	%RDI M % of RDI for males aged 12-18
Sweet Potato	½ cup	1400	200.0	155.0
Carrot	1 medium	1015	145.0	112.0
Kale, boiled	½ cup	240	34.2	26.6
Mango	½ medium	200	28.5	22.2
Turnip Greens	½ cup	200	28.5	22.2
Spinach, raw	1 cup	185	26.4	20.5
Papaya	½ medium	150	21.4	16.6
Milk, Fat Free	1 cup	150	21.4	14.4
Red Bell Pepper	½ medium	140	20.0	15.5
Apricot	3 medium	135	19.2	15.0
Cantaloupe	½ cup	130	18.5	15.0
Egg, boiled	1 large	95	13.5	7.7
Romaine	1 cup	70	10.0	16.6
Milk, Whole	1 cup	75	10.7	10.5
Tomato, raw	1 medium	33	5.0	3.8
Broccoli	½ cup	35	5.0	3.8
Green Bell Pepper	½ cup	15	2.1	1.6
Orange	1 medium	15	2.1	1.6

Vitamin B₆

Vitamin B₆ is a water-soluble vitamin that exists in three major chemical forms: pyridoxine, pyridoxal, and pyridoxamine. It performs a wide variety of functions in your body and is essential for your good health. For example, vitamin B₆ is needed for more than 100 enzymes involved in protein metabolism. It is also essential for red blood cell metabolism. The nervous and immune systems need vitamin B₆ to function efficiently, and it is also needed for the conversion of tryptophan (an amino acid) to niacin (a vitamin). The following tables show the Recommended Daily Intake (RDI) for Vitamin B₆ and also common foods that contain the vitamin.

RDI for Vitamin B₆		
Age	RDI F RDI based on international standards for women.	RDI M RDI based on international standards for men.
1-3 Years	0.5mg	0.5mg
4-8 Years	0.6mg	0.6mg
9-13 Years	1.0mg	1.0mg
14-18 Years	1.2mg	1.3mg
19-50 Years	1.3mg	1.3mg
51 and older	1.5mg	1.7mg
Pregnancy	1.9mg	N/A
Lactation	2.0mg	N/A
Good Sources of Vitamin B₆		
Food	Serving Size	Vit B₆ mg
Oatmeal, Instant	½ cup	0.74
Potato, baked in skin	1 medium	0.70
Banana	1 medium	0.68
Garbanzo Beans	½ cup	0.57
Chicken Breast, roasted	3 ounces	0.50
Pork Loin, broiled	3 ounces	0.39
Top Sirloin, broiled	3 ounces	0.39
Halibut, broiled	3 ounces	0.34
Rainbow Trout, cooked	3 ounces	0.29
Brown Rice, cooked	1 cup	0.28
Sweet Potato, baked	1 medium	0.27
Sunflower Seeds	1 ounce	0.23
Avocado	½ cup	0.20
Kidney Beans, cooked	½ cup	0.18
Lentils, cooked	½ cup	0.18
Tuna, canned in water	½ cup	0.18
Peanut Butter	2 tablespoons	0.15
Lima Beans	½ cup	0.10
Soy Beans, cooked	½ cup	0.05
Fortified Cereal	¾ cup	0.5-2.0

Vitamin B₁₂

Vitamin B₁₂ works with folate to make red blood cells and as such, some types of anemia are associated with a low vitamin B₁₂ intake. B₁₂ is also essential for a healthy nervous system. Usable vitamin B₁₂ is only found in animal products. Seaweed, algae, and spirulina contain vitamin B₁₂, but in a form that cannot be well absorbed by the body. Fermented plant foods such as tempeh and miso are often said to contain vitamin B₁₂, but in actuality they contain virtually no measurable level of the vitamin.

RDI for Vitamin B₁₂		
Age	RDI F RDI based on international standards for women.	RDI M RDI based on international standards for men.
1-3 Years	0.9mg	0.9mg
4-8 Years	1.2mg	1.2mg
9-13 Years	1.8mg	1.8mg
14 and older	2.4mg	2.4mg
Pregnancy	2.6mg	N/A
Lactation	2.8mg	N/A
Good Sources of Vitamin B₁₂		
Food	Serving Size	Vit B₁₂ mf
Clams, canned, drained	3 ounces	84.1
Oysters, steamed	6 medium	14.7
Blue Fish, baked	3 ounces	5.3
Bass, stripped, baked	3 ounces	3.8
Salmon, canned	3 ounces	3.7
Beef, lean, broiled	3 ounces	2.2
Ground beef, lean	3 ounces	2.0
Cottage Cheese, 1%	1 cup	1.4
Yoghurt, plain, non fat	1 cup	1.0
Milk, 1%	1 cup	0.9
Egg, boiled	1 large	0.6
Pork Loin, lean, broiled	3 ounces	0.6
Chicken Breast, cooked	3 ounces	0.3
Turkey, cooked	3 ounces	0.3

Vitamin C

Vitamin C assists the body in the production of collagen, a basic component of connective tissues. Collagen is an important structural element in blood vessel walls, gums, and bones, making it particularly important to those recovering from wounds and injury. Vitamin C also assists in the absorption of iron. The Recommended Daily Intake (RDI) of Vitamin C for females between the ages of 8 and 18 is 30mgs per day, and for males between the ages of 8 and 18 the RDI is 35-40mgs per day. The following table gives you some examples of common foods that are rich in Vitamin C.

Good Sources of Vitamin C				
Food	Serving Size	Milligrams of Vit. C	%RDI F % of RDI for females aged 8-18	%RDI M % of RDI for males aged 8-18
Guava	1 medium	165	235.0	183.0
Red Bell Pepper	½ cup	95	135.0	94.7
Papaya	1 medium	95	135.0	94.7
Orange Juice	¾ cup	75	107.0	83.3
Orange	1 medium	60	85.7	66.6
Broccoli, boiled	½ cup	60	85.7	66.6
Green Bell Pepper	½ cup	45	64.2	50.0
Kohlrabi, boiled	½ cup	45	64.2	50.0
Strawberries	½ cup	45	64.2	50.0
Grapefruit, white	Half	40	57.1	44.4
Cantaloupe	½ cup	35	50.0	38.8
Tomato Juice	¾ cup	35	50.0	38.8
Mango	1 medium	30	33.3	42.8
Tangerine	1 medium	25	35.7	27.7
Potato, baked in skin	1	25	35.7	27.7
Cabbage Greens, boiled	½ cup	25	35.7	27.7
Spinach, Raw	1 cup	15	21.4	16.6

Vitamin D

Vitamin D is an important part of a healthy diet. New benefits of this vitamin are being discovered every day, but many people still do not receive enough vitamin D to reap the wonderful benefits it can provide to their health. Vitamin D is most commonly known for its contribution to joint and bone health by helping the body absorb calcium. It has been shown that people who take in enough vitamin D are less likely to suffer from osteoporosis and joint pain. This vitamin can also slow the affects of arthritis and lessen back pain in many individuals. Studies have shown that vitamin D can also prevent certain types of cancer.

Vitamin D is one of the only vitamins produced naturally by the body. However, in order for the body to produce vitamin D, it has to be exposed to an adequate amount of sunlight. Generally, an hour per week is more than enough, but surprisingly, many people are still not exposed to enough sun to produce beneficial amounts of vitamin D. Also, studies have shown that as we age, we tend to produce less vitamin D even with adequate sun exposure. These are the primary reasons why many adults have to monitor their diets to make sure they are taking in enough vitamin D.

The Recommended Daily Intake (RDI) of Vitamin D for persons aged between 12 and 18 is 30-45mgs per day. The following table gives you an idea as to which foods Vitamin D is most commonly found in.

Good Sources of Vitamin D			
Food	Serving Size	Milligrams of Vit. D	%RDI <small>%RDI based on recommended international standards for persons aged 12-18</small>
Pure Cod Liver Oil	1 tablespoon	1360	340
Salmon, cooked	3 ½ ounces	360	90
Mackerel, cooked	3 ½ ounces	345	90
Sardines, canned, drained	1 ¾ ounces	250	70
Tuna Fish, canned in oil	3 ounces	200	50
Milk, non fat	1 cup	98	25
Instant Desert, fortified, prepared	½ cup	50	10
Read-to-eat cereals, fortified 10%	¾ cup	40	10
Egg, whole (Vit. D found in yolk)	1 large	20	6
Liver, beef, cooked	3 ½ ounces	15	4
Cheese, Swiss	1 ounce	12	4

Vitamin E

Vitamin E is extremely important in maintaining a healthy circulatory system and aids in proper blood clotting and wound recovery. Vitamin E is a powerful antioxidant which neutralizes free radicals in the body that cause tissue and cellular damage. The Recommended Daily Intake (RDI) of Vitamin E is 25mg per day. The following table gives you an example of the Vitamin E content of many common foods.

Good Source of Vitamin E			
Food	Serving Size	Milligrams	%RDI
Wheat-germ Oil	1 tablespoon	20.30	135.3
Mayonnaise	1 tablespoon	11.00	73.3
Margarine	1 tablespoon	8.00	53.3
Almonds, dried	1 ounce	6.72	44.8
Hazelnuts, dried	1 ounce	6.70	44.6
Sunflower Oil	1 tablespoon	6.10	40.6
Sweet Potato	1 medium	5.93	39.5
Almond Oil	1 tablespoon	5.30	35.3
Cottonseed Oil	1 tablespoon	4.80	32.0
Safflower Oil	1 tablespoon	4.60	30.6
Corn Oil (Mazola)	1 tablespoon	3.00	5.0
Peanut Butter	1 tablespoon	3.00	5.0
Palm Oil	1 tablespoon	2.60	17.3
Peanuts, dried	1 ounce	2.56	17.0
Mango, raw	1 medium	2.32	15.4
Avocado, Raw	1 medium	2.32	15.4
Corn Oil	1 tablespoon	1.90	12.6
Olive Oil	1 tablespoon	1.60	10.6
Peanut Oil	1 tablespoon	1.60	10.6
Soybean Oil	1 tablespoon	1.50	10.0
Pistachio Nuts, dried	1 ounce	1.46	9.7
Asparagus, frozen	4 spears	1.15	7.6
Macaroni Pasta, enriched	1 cup	1.03	6.8
Spaghetti Pasta, enriched	1 cup	1.03	6.8
Egg, Whole, Fresh	1 Large	0.88	5.8
Apple with Skin	1 medium	0.81	5.4
Walnuts, English	1 ounce	0.73	4.8
Turnip Greens, raw	½ cup chopped	0.63	4.2
Spinach, raw	½ cup	0.53	3.5
Vegetable Oil Spray	2.5 Second Spray	0.51	3.4
Tomato, red, raw	1 medium	0.42	2.8
Tomato Juice	6 Fluid Ounces	0.40	2.6
Margarine, diet	1 tablespoon	0.40	2.6

Calcium

Most people think the main reason to eat **Calcium** rich foods is to build strong bones and to prevent or postpone degenerative bone diseases such as osteoporosis, but the need for Calcium is much more complex than that. An adequate intake of daily dietary Calcium is required to control the heart rate, blood clotting, muscle contraction, and much more. Magnesium and Calcium work hand-in-hand with each other. Magnesium works to relax muscle and nervous tissue, while Calcium is used to help contract or activate muscles. The Recommended Daily Intake (RDI) of Calcium changes over time. The RDI is at its highest during the times of the most growth, generally between the ages of 12-18. The RDI for this age group is 1000-1200mgs per day.

Good Sources of Calcium			
Food	Serving Size	Milligrams of Calcium	%RDI* %RDI for students aged 12-18
Yoghurt, Plain, non-fat	1 cup	450	45.0
Tofu (w/calcium)	½ cup	435	43.5
Yoghurt, Plain, low-fat	1 cup	415	41.5
Yoghurt, fruit	1 cup	315	31.5
Milk, fat-free	1 cup	300	30.0
Milk, 2%	1 cup	295	29.5
Milk, whole	1 cup	290	29.0
Chocolate Milk, 1%	1 cup	285	28.5
Chocolate Milk, 2%	1 cup	270	28.5
Swiss Cheese	1 ounce	250-300	27.0
Calcium Fortified Soy Milk	8 ounces	225	25-30
Calcium Fortified Orange Juice	¾ cup	220	22.5
Cheese Pizza	1/8 pizza	205	22.0
Cheddar Cheese	1 ounce	205	20.5
Salmon, Canned	3 ounces	185	20.5
Mozzarella Cheese	½ cup	180	18.5
Blackstrap Molasses	1 tablespoon	150	17.0
pudding	½ cup	130	15.0
Tofu, raw, w/o Calcium	½ cup	130	13.0
Frozen Yoghurt	½ cup	105	10.5
Turnip Greens	½ cup	100	10.0
Sardines	1 ounce	90	9.0
Dried Figs	3	90	9.0
Ice Cream	½ cup	85	8.5
Cottage Cheese	½ cup	70	7.5
Tempeh	½ cup	70	7.5
Okra	½ cup	70	7.5
Parmesan Cheese	1 tablespoon	50	7.0
Milk Chocolate Bar	1 ounce	50	7.0
Orange	1 medium	45	5.0
Kale	½ cup	40	4.5
Broccoli	½ cup	40	4.5
Anchovies	5	40	4.0
Pinto Beans	½ cup	40	4.0
Cream Cheese	2 tablespoons	25	2.5
Tuna, canned	3 ounces	10	1

Iron

Iron is a mineral that the body needs to produce red blood cells. When the body does not get enough iron, it cannot produce the number of normal red blood cells needed to keep you in good health. Much of the iron in the body is attached to hemoglobin molecules in red blood cells, which delivers oxygen to all of the tissues. Iron is also needed for proper muscle and organ function making it extremely important for the young dancer. The Recommended Daily Intake (RDI) of Iron for male and females between the ages of 12 and 18 is 10-13mgs per day.

Good Sources of Iron			
Food	Serving Size	Milligrams of Iron Average quantity of Iron per stated serving	%RDI Average %RDI based on stated serving size
Pork	3 ounces	7.40	40+
Clams, steamed	3 ounces	7.40	40+
Oysters, baked/steamed	3 ounces	7.40	40+
Rolled Oats, cooked	2/3 cup	5.75	25-39
Oatmeal, fortified, prepared	2/3 cup	5.75	25-39
Ready-to-eat cereals, fortified	1 ounce	5.75	25-39
Spinach, cooked	½ cup	5.75	25-39
Beef	3 ounces	5.75	25-39
Chicken or Turkey	½ cup, diced	5.75	25-39
Oysters, canned, undrained	3 ounces	5.75	25-39
Soy Beans, cooked	½ cup	5.75	25-39
Bagel, plain	1 medium	3.05	10-24
Muffin, bran	1 medium	3.05	10-24
Egg Noodles, cooked	1 cup	3.05	10-24
Pita Bread, plain or wheat	1 small	3.05	10-24
Pretzel, soft	1 medium	3.05	10-24
Rice, white, cooked	2/3 cup	3.05	10-24
Apricots, dried, unsweetened	½ cup	3.05	10-24
Beans, lima, cooked	½ cup	3.05	10-24
Ground Beef, lean, baked	1 patty	3.05	10-24
Pot Roast, lean, braised	3 ounces	3.05	10-24
Roast, rib, braised	3 ounces	3.05	10-24
Short Ribs, lean, braised	3 ounces	3.05	10-24
Steak, lean, baked/braised	3 ounces	3.05	10-24
Stew Meat, lean, simmered	3 ounces	3.05	10-24
Calf	3 ounces	3.05	10-24
Liverwurst	1 ounce	3.05	10-24
Tongue, braised	3 ounces	3.05	10-24
Turkey, roasted, no skin	3 ounces	3.05	10-24
Mackerel, canned, drained	3 ounces	3.05	10-24
Mussels, steamed/poached	3 ounces	3.05	10-24
Shrimp, steamed/boiled	3 ounces	3.05	10-24
Trout, baked/broiled	3 ounces	3.05	10-24
Garbanzo Beans, cooked	½ cup	3.05	10-24
Lentils, cooked	½ cup	3.05	10-24
Pine Nuts	2 tablespoons	3.05	10-24
Pumpkin or Squash Seeds	2 tablespoons	3.05	10-24

Zinc

Zinc plays a crucial role in growth and cell division, where it is required for DNA and protein synthesis (important in the building and repair of muscle and tissue, which is why zinc helps cuts and wounds heal). Zinc also helps us fight infections, as it is essential for a strong immune system - have you noticed how many cold and flu preparations contain zinc? Life would simply not be the same without zinc, as it is vital for your ability to taste, smell and see. The Recommended Daily Intake (RDI) of Zinc for persons aged 12-18 is 12mgs per day. The following table gives some examples of foods that are rich in Zinc.

Good Sources of Zinc			
Food	Serving Size	Milligrams of Zinc	%RDI <small>%RDI based on zinc content of standard serving</small>
Oysters, raw	6 medium	16.0	100+
Ready-to-eat Cereals, zinc fortified	¾ cup	1.0	100+
Beef Shank, lean only, cooked	3 ounces	8.9	60
Beef Roast, lean only, cooked	3 ounces	7.4	50
Beef Tenderloin, lean only, cooked	3 ounces	4.8	30
Pork, lean only, cooked	3 ounces	4.2	30
Beef Eye Fillet, lean only, cooked	3 ounces	4.0	25
Chicken Breast, cooked	1 leg	2.7	20
Pork Tenderloin, lean only, cooked	3 ounces	2.2	15
Yoghurt, plain	1 cup	1.6	10
Pecans, dry roast, no salt	1 ounce	1.4	10
Raisin Bran	¾ cup	1.3	8
Chickpeas, mature seeds	½ cup	1.3	8
Mixed Nuts, dry roast, no salt	1 ounce	1.1	8
Cheese, Swiss	1 ounce	1.1	8
Almonds, dry roast, no salt	1 ounce	1.0	6
Walnuts, dried	1 ounce	1.0	6
Milk, whole	1 cup	0.9	6
Cheese, Cheddar	1 ounce	0.9	6
Cheese, Mozzarella, skim	1 ounce	0.9	6
Beans, kidney, cooked	½ cup	0.8	6
Green Peas, boiled	½ cup	0.8	6
Oatmeal, instant, low sodium	½ cup	0.8	6
Flounder, cooked	3 ounces	0.5	4

Part 2

Eating Disorders in Dancers

- What is the difference between *Disordered Eating* and an *Eating Disorder*?
- Is it true that a lot of dancers have eating disorders?
- My 13 year old daughter has always been a little on the bigger side but has recently lost a lot of weight, and she seems to be skipping meals. What should I do? She just gets angry at me whenever I say anything.
- What is the *Female Athlete Triad*?
- What is the current *treatment* for eating disorders?
- My daughter has struggled with issues with eating for several years and now is studying ballet full time. I have tried to take her to dieticians and psychologists, but she denies that she has an issue. She just gets angry at me when I bring it up. Where do I go to from here?

Disordered Eating



**What is the difference between
Disordered Eating and an *Eating Disorder*?**

We all eat weirdly during times of emotional stress. Some of us eat more, some less, in response to adrenalin and hormonal surges. It is also hard to avoid missing a meal every now and again, when we are always on the run or have had a large snack too close to dinnertime.

What distinguishes *disordered eating* from occasional quirky or spotting eating is the purpose and consistency behind the behavior, and whether or not we maintain a sense of free choice with regard to eating behaviors. When people use food to try to resolve or in response to underlying emotional issues, there is a problem. When the decision about what and how to eat is based on compulsive and inflexible emotional needs, we enter a different realm of ‘nutrition’.

Eating is defined as ‘*disordered*’ when we turn to food (or away from it) as a way to cope with problems. For instance, when food or dieting is associated with loneliness or anxiety, eating is disordered. ‘*Eating Disorders*’ are a serious form of ‘*Disordered Eating*’ which can lead to very serious health problems. (ref. Deakin)

Many girls will have disordered eating at some point in time. The statistics say it all. 40 - 50 percent of young women on college campuses today are disordered eaters. By the time girls reach age 13, as many as **80 percent** report dissatisfaction with their body and their weight and have been on diets. (ref. Abigail N) While many girls will go through this at some point in time, it varies greatly as to what will be the short and long term repercussions of this. Depending on her feelings towards food and herself, her knowledge of nutrition and the attitudes and reactions of people around her, she can quickly realize the detriment of this on her health and performance, or become engrossed in the power-play with food.



So, what can you do to help your daughter through this period? Here are some hints to help reduce the incidence of any disordered eating practices on your daughter.

- Try to encourage healthy eating habits from a young age ***based on health***, rather than on ***weight***.
- ***Focus on strength or technique*** based aspects of her dancing, rather than their appearance.
- ***Be a healthy role model***. Try not to focus on your weight, but more on your own health, energy and strength.
- Take care with ‘***throw-away***’ ***comments*** that may have lasting effects. If a girl is always labeled as “the chubby one” when she is little, she will often hold onto this later on in life.

- Try and have **healthy, happy family meals together** as much as possible. If meal times are emotionally strained girls may associate food and eating with anger, fear or sadness.
- Have **meal times scheduled into your program**, rather than trying to “fit it in” when you can.
- Allow small amounts of regular ‘**treats**’ to avoid bingeing and purging cycles.
- Do **fun, energetic activities together as a family** so that ‘home time’ is not always about eating or arguing.
- Encourage a positive self image by **talking freely about the things she is good at**. Many people avoid doing this for fear of boasting; however it is a very healthy act to develop self appreciation.
- Try not to have ‘**forbidden foods**’. The guilt and deceitfulness of sneaking these foods in private can become addictive to certain personalities.
- Try to help your daughter understand that **she is not her actions** by not labeling actions personally. Just because **she is being** lazy does not mean **she is** lazy. While this appears a small distinction initially, it can become a very important realization for many people.

If you feel that your daughter is showing signs of disordered eating;

- **Don’t make a big deal of it**. Some girls crave the attention that goes with being diagnosed with a ‘disorder’ and get addicted to the attention that this manifests. This can also be a common cause for relapses just when she may appear to be improving. Often we can associate so much of our self-perception with our actions that we start to feel anxious about our identity when this is not so much a part of ‘us’ any more. It is important to seek professional help when needed, but try not to get too emotionally involved (in her presence).
- Do some **research** into the mountain of material about overcoming eating problems and discover which approach feels right for you (see the list of resources).
- Most importantly – **get support**. If you feel that your daughter is having issues with her eating and you are not sure of what to do, talk to a professional who is used to dealing with teenagers in this situation.

Remember that an eating disorder often has little to do with the amount that she is eating, but the feelings that are influencing her behavior. Forcing her to eat, or having structured, measured meals are not the answer to any form of eating disorder. Being open about what, how and why she eats what she does, with a trusted, non-judgmental confidant (not necessarily you) is one of the most beneficial processes. Often while discussing related situations, realizations occur that help unfold the complex maze of triggers that may have helped construct her ideas about food. Often an understanding occurs about a certain place and time that she is now distant from, that may help ease the psychological grip of the disorder. This is rarely a rapid process, and follows a different path for every individual. While the process may be frustrating for friends and family members, this will most often make the most effective change in damaging behaviors.

Eating Disorders in Dancers



Is it true that a lot of dancers have eating disorders?

I will not lie and say that eating disorders are not common in the dancing community. However, as the physical demands on dancers increase, many are learning that substandard nutrition is a major cause of injury and illness that they simply cannot afford, professionally or financially. Students are finally beginning to learn more about nutrition and how it affects their dancing, and many dance schools now have policies about restricting classes for at risk girls.

The misconception that all the thin dancers you see on stage have eating disorders is exactly that; a misconception. Most dancers are now highly aware of their personal optimal nutrition, and use this to their advantage to stay lean and lithe, while maintaining strength and health. Many have rituals about what they eat before, during and after performances, and many actually eat a lot more than you would expect. Hours of training can work off large amounts of food that people who do not exercise could not cope with.

In addition, many companies now prefer a stronger, more muscled physique in their female dancers, which then, in turn, communicates the message to their avid patrons and fans that this physique is desirable. This is especially true in many contemporary companies and also in classical soloists. Many productions are incorporating more acrobatic skills and demand more strength, especially in the upper body, than was traditionally demanded of ballet dancers. In order to be versatile, and therefore employable, dancers need to be fit, healthy and strong in all areas.



Dealing With a Suspected Eating Disorder

My 13 year old daughter has always been a little on the bigger side but has recently lost a lot of weight, and seems to be skipping meals. What should I do, as she just gets angry at me whenever I say anything?

Many girls will begin to experiment with food intake around this age, for various reasons. Some hate the body changes that are beginning to manifest, especially if they have matured earlier than their friends, and see the growth of breasts and hips as putting on weight. Standing in front of a mirror in a skin-tight leotard is no easy task, especially when your body is coming up with new surprises overnight. Some girls have issues with classmates at school, and may be the subject of bullying. Some girls may also appear to “lose weight” rapidly with no change to their diet, if they have suddenly increased their hours of exercise, or had a recent growth spurt.

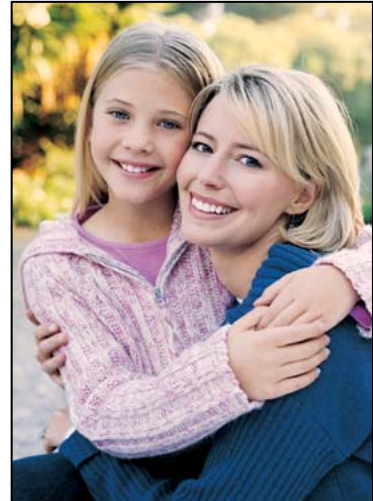


If you do have serious concerns about your daughters eating habits, please talk to a health professional trained in dealing with girls of this age for advice on how to approach the situation. Many girls are extremely defensive about their weight, so subtle techniques are often more effective than direct confrontation. Instead of confronting your daughter about her eating, look to see if there is anything else bothering her. She may be stressed over recent assignments or exams, or be having problems with peers at school.

If you have never had a close relationship, this is not the time to push for one, but just let her know that you love her and that she can talk to you, which will help take the pressure off. Try not to do this in a loaded way, for example ***“You know if you want to talk to me about anything, you know that I am here”*** usually is translated by a teenage mind to ***“I know something is wrong and I want you to tell me about it”***. Instead, try to relate to her as an adult (despite how she acts at times) in other areas, and discuss wider issues with her. Once she feels that you are accepting her as an adult, she may come to you about other issues more readily. If you continue to treat her like a child, she will often feel that she is not understood, and will turn to others, or within, to deal with her issues.



If she admits that she is scared of putting on weight, or of being fat, try not to comfort her with *“but Darling, we love you the way you are”* or *“You don’t have to be skinny to be beautiful”*. While these comments may be very true, it may give her the message (in teenage translation terms) that *“Yes, you are fat”* and *“You cannot change how big you are”*. Neither of these is very helpful to the self tormented adolescent mind! Instead, ask her why she feels such things, and ask if she would like to learn more about how to look after her body. She may agree to go with you to a nutritionist to discuss the types of foods that are best for her, or help you find books on healthy eating at your local library. Approach it as a team effort that the whole family is involved in, and treat it as a health awareness exercise rather than a weight control issue.



Encourage her to be involved in food preparation and planning of her own diet. Becoming interested in the value of food, and different ways of preparation can be very helpful in giving her tools to eat healthily. If you feel that you don’t know how to cook certain foods, or prepare foods in healthy ways, consider doing a healthy cooking course (either just you or together) at a local evening class. Getting interested in a different nationalities cuisine, especially if there is the option of visiting that country in the future, can be a great way to explore food in a fun way.

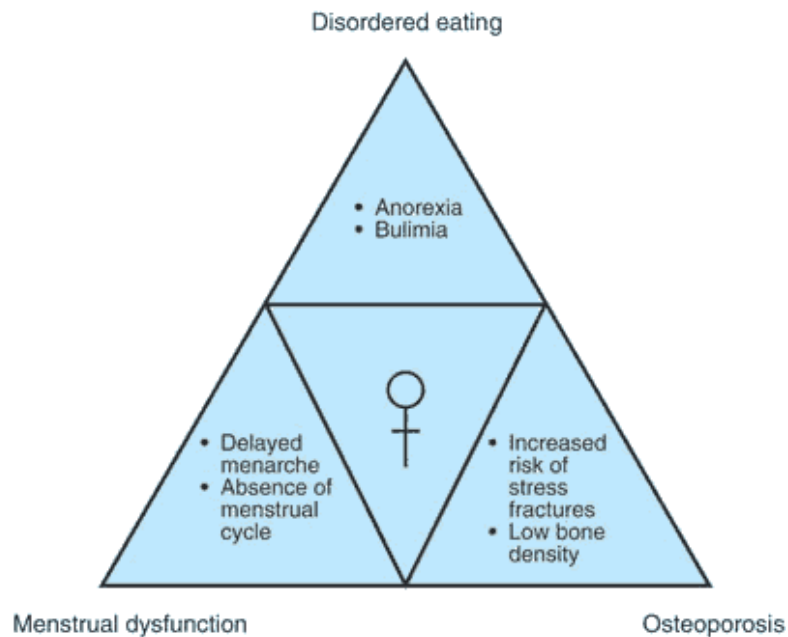


The Female Athlete Triad

?

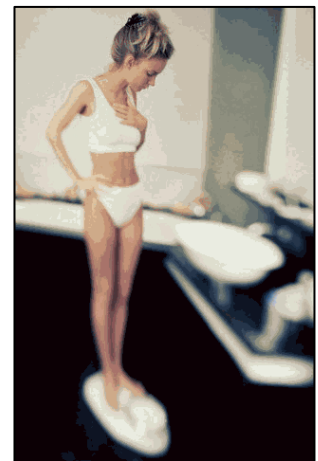
What is the Female Athlete Triad?

As dancers often have perfectionist personalities, and push themselves to best that they can be, there is a risk that they may disturb the fine balance between health and performance. Any girl who plays sports or exercises intensely is at risk of developing a problem called “The Female Athlete Triad”, which is a combination of three interrelated health problems. These problems include: low energy availability, menstrual disorders, and weak bones. In the extreme, they become *disordered eating, amenorrhea, and osteoporosis*.



Triad Factor #1: Disordered Eating

Although low energy availability may be caused by increasing energy expenditure without any reduction in energy intake (for example; increasing hours of training), for many dancers, disordered eating is the first step in developing The Triad. In an attempt to lose body weight dancers may severely limit their food intake, constantly weigh and/or measure foods, eat in secret, refuse to eat in front of others, or abuse laxatives. These tactics may adversely affect their physical performance and often result in dehydration, malnourishment, and unhealthy weight loss. In other cases, the driving force may not actually be specifically about issues with food, but a result of other psychological difficulties such as an obsession with power and control, depression, anxiety or self punishment.



Triad Factor #2: Amenorrhea (Loss of menstrual periods)

If a dancer is simultaneously exercising intensely and not eating enough calories, and her weight falls too low, the body will attempt to reduce energy expenditure in other processes, in part by suppressing menstrual function. She will begin to have a decrease in estrogen production, the hormone that helps to regulate the menstrual cycle. As a result, her periods may become irregular or stop altogether.

Some girls who participate intensively in sports may never even get their first period because they've been training so hard. Other girls may have had periods, but once they increase their training and change their eating habits, their periods may stop. It is important to understand however, that exercise has no suppressive effect on menstrual function beyond the impact of its energy cost on energy availability, and can be prevented by increasing dietary energy intake in compensation for exercise energy expenditure.

Often girls will say that it is 'normal' for a dancer not to have her periods, however it is never healthy, desirable or acceptable. When menses stop, the body is communicating that something is wrong. Energy consumption is not meeting the needs of the individual. Furthermore, if an athlete is over the age of 16 and has not yet started menstruating, she should contact a healthcare professional. Lack of menstruation can inhibit normal pubertal growth and development. However, a missed period does not automatically mean a girl has 'The Female Athlete Triad'. It is quite normal for teen girls to occasionally miss periods, especially in their first year of having periods.

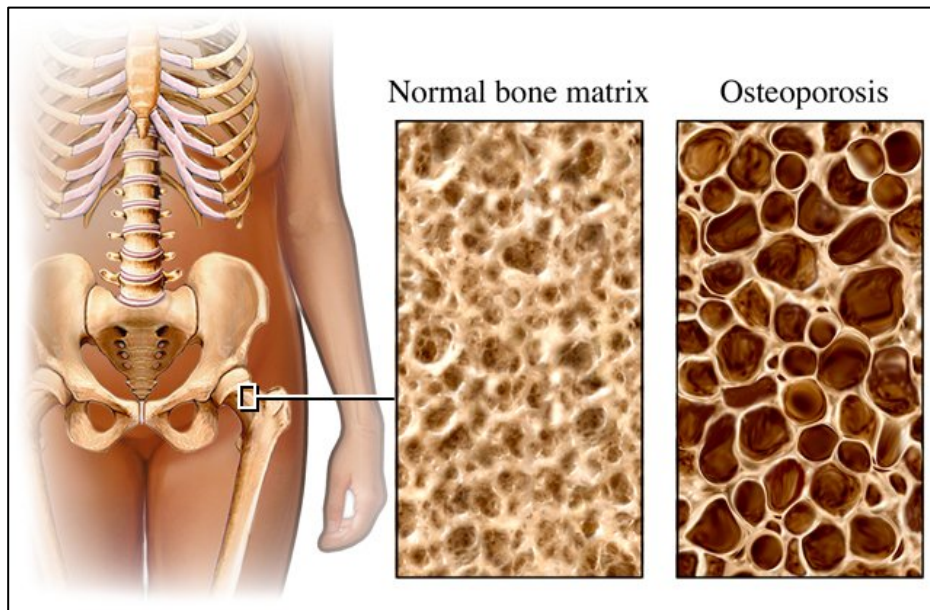


Triad Factor #3: Osteoporosis

Low estrogen levels and poor nutrition, especially with a low calcium intake, can lead to osteoporosis, the third aspect of the triad. Osteoporosis is a weakening of the bones due to the loss of bone density and improper bone formation. This condition can ruin a female athlete's career because it may lead to repeated stress fractures and other injuries.

The teen years are a time when girls should be building up their bone mass to their highest levels — called “peak bone mass”. Impairing bone growth at this stage is especially harmful for young athletes, as 50% of bone mass accumulates during the teenage years. Achieving optimal peak bone mass is influenced by both her dietary intake of calcium and her hormonal levels. Girls often avoid dairy products because of the association of these products with a high fat content. In addition, they often drink caffeinated beverages which, if not taken with a source of calcium, may increase the elimination of calcium from the bones.

Some girls think that they will not have to worry about this until they are in their 70's. However, a girl who has not had her periods for more than 5 years may have the bone density of a much older lady even as young as 30 years of age. The combination of lack of bone mass creation and increased absorption can be dramatic. This can result in stress fractures, or complete bone fractures from little external force.



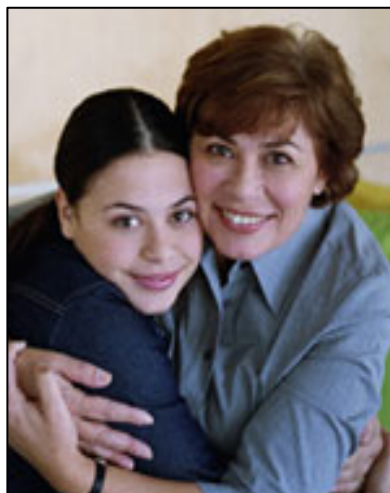
Physical signs of the Triad include;

- Noticeable or sudden weight loss.
- Cold hands and feet.
- Dry skin.
- Hair loss.
- Absent or irregular menstrual periods.
- Increased rate of injury.
- Delayed healing time for injuries.
- Stress fractures.

Emotional signs may include;

- Mood changes.
- Decreased ability to concentrate.
- Depression.

It is very important that girls who demonstrate one, two or all of the three aspects of the triad receive appropriate treatment as soon as possible, as ‘The Triad’ can harm every aspect of life. Nutrient deficiencies and fluid/electrolyte imbalance can lead to impaired performance growth and mental functioning as well as an increased risk of fractures and other injuries. Long-term consequences may include loss of reproductive function and serious medical conditions such as dehydration and starvation. Effective treatment must address all possible causes of The Triad, and should include medical, nutritional, and psychological intervention. Counseling and education regarding eating properly for the amount of energy expended as well as activity modification may be integral parts of the recovery process. Normal menstruation should be a goal for the athlete.



Treatment Options



What are the current treatments for various eating disorders?

The treatment of eating disorders varies substantially from country to country, and from clinic to clinic. Some methods can be extremely successful for some girls and not work for others, and very often effective treatment depends on developing a good connection between the girl and her therapists. There are also many different types of eating disorders, which will share some similarities, but will be markedly different in other ways, therefore treatment strategies will change.

As there are so many different issues that contribute to anyone developing an eating disorder, therapy needs to address not only the symptoms of disordered eating, but understand the reasons behind the eating patterns. Whether she avoids food, binges and purges, or overeats, there are usually a multitude of factors that have worked together to create her beliefs and actions around food. It is not a matter of forcefully changing these patterns, but helping the sufferer come to her own understanding about her illness, in order to produce long lasting effects.

Some girls will force themselves to abstain from certain foods due to what they believe the foods contain. Many girls will avoid milk as they fear that it is fattening, while the truth is that even full cream milk only has a 3.8% fat content. This is less than your average skinless chicken breast. Other girls will even avoid water as they will be heavier on the scales after drinking just 500mls. These girls will often consume very dry foods to minimize 'weight gain' and will demonstrate signs of poor digestive function and irregularity.

Some girls will binge eat in private yet eat super-healthy foods while in the company of others. They may do this out of fear of being seen eating 'unhealthy' foods, and will often beat themselves up internally for not being able to demonstrate the same restraint with themselves as they do with others. Some girls even (subconsciously) like the fear of being caught, or doing something 'naughty' without others knowing. Many of these girls will begin a cycle of bingeing and purging to reduce the external evidence of their 'weaknesses'.

As a physiotherapy student I had the opportunity to work in a specialized eating disorders unit within a local hospital and was extremely disappointed at many of the treatment approaches and the attitudes of some staff involved. The focus at the center (dictated by some very unhealthy looking, rather large, male nurses) was on the girls gaining weight, to achieve a certain weight goal before being allowed to go back to school, dancing, home etc. This was achieved by monitoring the girls closely and supervised feeding of high protein and fat enriched food. There was very little focus on healthy nutrition, enjoyment of food, physical strength or gaining lean body mass. This fueled a vicious cycle, as girls would put the weight on, and then promptly strip it off again once they got out of the unit. Girls often have a very set belief about what a certain weight means for them, and have their own idea of what 'good' is after many years of playing with their weight.

Some of the nurses held disdain for the Physiotherapists in the unit as we were getting the girls to ‘exercise’ and ‘undoing’ all the good work that they were doing in ‘fattening them up’. As a young woman I could totally sympathize with the girls not wanting to listen to unattractive overweight male nurses, and was appalled at some of the foods that they were being fed. Together with the resident physiotherapist in the unit I worked with the girls on meditation and relaxation practices, and had a focus on gaining lean body mass to achieve strength goals, rather than focusing their rehabilitation entirely on their measurable weight. As many girls with anorexia and bulimia are perfectionists, we used this as a skill, rather than a hindrance, yet simply directed it in a different direction. The girls learnt that it could be fun working with their own body, and exploring their capabilities to modify it beyond weight control.

Some ways of incorporating these principles with any early signs of disorders may include:

- Encourage involvement in a regular yoga practice with a teacher who is used to dealing with dancers. The poses will demand strength, endurance and control, while the relaxation period at the end of most classes will gently assist in calming her mind, and letting go of muscular tension.
- Working with a personal trainer, who ideally has some experience working with girls who have troubles with disordered eating. The focus should not be on cardiovascular training or lifting weights, but more focused on using her own body weight or Swiss ball exercises to challenge her stability and fine motor control. The trainer can also introduce concepts of eating for enhanced performance and recovery, rather than weight control.
- Involvement in another complimentary sport. Many young dancers love to participate in activities such as indoor rock climbing, or martial arts where their flexibility and control is a natural advantage. Both also have the added advantage of strengthening a dancer’s upper body and the requirement for mental focus in order to perform well.

After working in the unit I made a conscious decision that I wanted bring some balance to the area of treatment of eating disorders. I hope that by getting information such as this out to many parents, more people will start asking questions of the health professionals that are helping care for their daughters. It is of vital importance that we stimulate more exploration into this desperately needed area of health, and look at the issues involved holistically. The solution lies in assisting girls to appreciate their bodies and the life they can live, not in making them gain weight. We all must have a purpose to want to be a part of this world, and once that purpose and a path is identified, many girls with self harming disorders will turn themselves around.



My daughter has struggled with issues with eating for several years and now is studying ballet full time. I have tried to take her to dieticians and psychologists, but she denies that she has an issue. She just gets angry at me when I bring it up. Where do I go to from here?

This is a very common scenario, where friends and family are sure that a girl is having an issue with eating, yet she will not acknowledge the existence of any problem. Many parents despair at what to do with their beloved daughter who seems intent on hurting herself, however often the situation can be diffused in some unlikely ways.

With any kind of disordered eating the solution comes from finding her defining value, the true reason that she is restricting her eating. Surprisingly, few eating disorders are actually about the food or weight, although this is often given as the primary reason

- What is her governing value?
- What response is she getting from her action?
- Is she trying to fit into a group?
- Is she trying to demonstrate her independence?
- Does she need acknowledgement from you and this is the only way she can get it?
- Does she need to be in control of something when the rest of her world feels out of control?



If you look at most 'disorders', especially most eating disorders, they will involve, and usually stem from, a secret. As long as nobody else knows the tension is maintained and that tension can be addictive. Anyone who has succeeded in overcoming an addiction has first released their secret. If you can take away the humiliation that they assume will follow by releasing the secret you have made the first step in disarming the situation. If all of a sudden it is okay to be what they have feared, a release can occur.

In any case, it is important that she knows that you know what she is doing, to diffuse the energy in her secret. Try not to force the issue, but it can be helpful to sit her down and say something like....

"Hey honey....You don't have to tell me if you are or you aren't, Sweetie... I know you are having eating problems... No no no... It's ok... I am not judging you... I love you dearly... It's ok... I know you are vomiting up your food... Don't defend it, please, don't be angry... I don't hate you for it... It's all okay... We are going to work this out together, one way or another. Either we watch you go all the way till you are going to find yourself dead, or you are going to clear it... There is no in between in this game, sweetie... I am on your side... I don't want to force you to change, and I am not going to hassle you or haggle you... We are just going to play along for a bit and see what happens... I just wanted to let you know that I know, and its fine... Now if you want to keep vomiting it up for a while that's fine...."

Give her credit for making the decision to go so far with her decision. This child actually came around to the conclusion that she didn't want to be eating. She has made a decision that she will not eat (or binge and purge) and has consistently followed through with this action for some time. You do not need to condone her actions, but responding in a different way to

what she is expecting will often disarm her, take the tension away and make it easier to open the communication lines. She thinks that she is doing the right thing in the circumstances. She thinks that what she is doing is really what is in her best interest. If you go against this decision, you are arguing with her arrogance, her ego and her decision making skills. It's not going to change anything, and will usually just build resentment. Instead, try to give her the space to go...

**Okay, hold on... She has just accepted my issue..., she is not arguing with me...
Now that's a whole different formula.**

Let her know that you are here to help. If she feels that she is fat, ask her if she would like to see a nutritionist or get into a different exercise regime. Any intervention has to be in alignment with what she believes the issue is to be effective. Try and meet her in her world and accept her view point, without trying to force her into anything, or trying to change her, as this forceful approach rarely works.

If you are mature enough to decide that you want to vomit all your food up, you are mature enough to make decisions for yourself.

Am I saying that you let your child go and continue with the disordered eating? No. But the only solution starts with a conversation. The only solution starts by meeting them at the table. By owning it, and by saying "let's admit this issue and work from that point". Can we find a solution together?

We can't dominate teenagers into making a decision. We all know that. As a teenager you know that you couldn't be dominated. You always won as a child. You told your parents you wouldn't do something and then did it anyway. Have we not learnt that that is not going to work with our kids? The best way to treat it is as if you were dealing with an adult. Say,...

Okay, you are going to do this anyway, so let's look at why you want to do it...

If you are in a position to talk to your child then it needs to start happening. You need to start opening the doors. It is often hard for some parents to accept that their child is maturing and that they have to start talking to them, yet this is a very necessary stage. Try not talk at them, above them or beyond them. Try talking with them. If you can't talk to your child then you may need to talk to a professional.



It is also possible to use the technique of releasing the secret for the reverse problem in regards to eating. I had a friend who had an issue with overeating in private and was terrified that she had some form of eating disorder. She had tried restrictive eating, all kinds of diets and other techniques but could not seem to stop herself from eating. She was great at eating healthily in the company of others, but would buy foods that she knew were not good for her, eat them in private, and then beat herself up afterwards for not being strong enough to resist.

What really helped for her was being able to lighten up the situation. Rather than getting all absorbed in the drama of having an "eating disorder" she was encouraged to eat as much as she liked, as long as every time she did, she phoned a friend and told them...

Hey I am just eating a big chocolate cake, and it's all over my face and I feel like a pig, and I hate myself for it, but I'm laughing about it

Believe it or not, this technique really works! In doing this she found that the thing she was actually addicted to was the sneaking of food and the excitement of hiding her actions from others. It's all about just taking the secret away. Once the action is allowed, it suddenly loses its power, its energy and its hold. And this can work for all kinds of 'disorders'. Most of the time we become addicted to the neuro-peptides and hormones that are released in response to an action rather than the action itself, so changing the response can release the addiction to those chemicals.

It is also important to ask questions of yourself. Are you getting involved in this because you want your child to be a better ballerina? Or because you love your child so much that you want her to build a better life and become a better human being? Most parents really don't care if their children make it as dancers, graduate from university, or become Chartered Accountants. We care that our children are alive and happy within their own heart.



SECTION 2

The Physical Development of an Adolescent Dancer

- Puberty
- Stretching and flexibility
- Training techniques and injury prevention
- Growth related injuries

Puberty

The adolescent age is a hard time for any young adult, and being a dancer is no exception. Rapid gains in weight, and/or the development of breasts are very noticeable in the young dancer, due to the hours spent in tight fitting clothing, in front of a mirror. Therefore, developing a healthy respect for her body at this stage is essential in maintaining a healthy weight range throughout her teenage years and beyond. For boys, there is the task of keeping certain body parts under control in a room full of girls, and in thin pale tights, this can be a challenge.



As puberty starts to hit, emotions are high and the world is a whirlwind of change. Entering high school, leaving old groups of friends and making new ones, body changes and coping with periods are all stresses on the young teenager. Dealing with menstruation is always a little tricky initially, especially for the active child who is constantly in a leotard. Girls often have to learn to use tampons from their first period as they are constantly in thin, tight clothing and moving rapidly.

However, if a child is slower to develop, it does not mean that she is trouble free. She may feel depressed that all her friends are growing up and “leaving her behind”. She may be angry at the fact that she has been kept off pointe to wait for her bones to mature, or has not be put up in a class due to her physical immaturity, despite technical competence. All of these aspects can have a profound effect on the way a child sees herself, and how she believes others look at her.

Some common questions from parents, in relation to puberty include;

- My daughter is getting really worried. She is almost 13 and still hasn't really grown much. All of her friends tower over her. Is this normal?
- My daughter has started getting lots of headaches in the last 6 months (she is 14). We have had her eyes tested and they are fine. Could this have anything to do with her growing?
- My daughter (10 years old) is starting to develop breasts and is very worried about this in ballet. All of her friends are tiny and she feels fat next to them. What do I say to her to make her feel okay about this? She loves to dance but I am worried she will want to quit due to this.

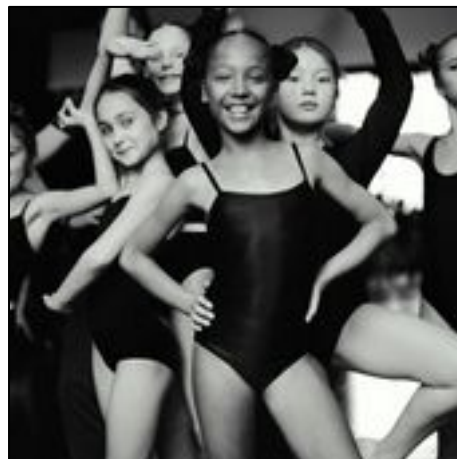
Delayed Growth



My daughter is getting really worried. She is almost 14 and still hasn't really grown much. All of her friends tower over her. Is this normal?

Many girls take some time to develop and if your daughter is just 14 years of age I would not be too worried. As long as she is getting good nutrition and is still just skeletally immature, her time will come. Some girls begin to develop at 10 while her best friend may be 15 before she really hits puberty. However, if your daughter is showing any signs of restrictive or binge eating, is losing weight or has any of the other signs of disordered eating, it may be wise to have her assessed by a medical professional.

It is very important not to base any progressions in ballet on age due to this discrepancy between age and developmental stages. This is especially true when it comes to progressing onto pointe. Many parents and teachers ask what age is best for starting pointe work; however this can be a very tricky situation. Occasionally a 13 year old may have the bones of a 10 year old, while her little sister at 11 may be more skeletally mature. It is a hard lesson for the girls to learn, but an important one, in that sometimes things don't happen when we want them to. A slow-to-develop 13 year old is much better to focus her training on improving strength and technique and will be much stronger starting en pointe, than to be put up while her bones are still immature and run the risk of damaging her feet for life.



However, if a child is approaching 15 and still has not grown and does not have her periods, I would definitely seek medical opinion. Many dancers are very lean, and may not drop into a regular menstrual cycle when they are doing intense training. This has the potential to have a big influence in how much calcium she is laying down in her bones, so it is best to be checked on before she gets any older.

Headaches

My daughter has started getting lots of headaches in the last 6 months (she is 14). We have had her eyes tested and they are fine. Could this have anything to do with her growing?

Many girls begin to have headaches around this time and for many different reasons. The best thing to monitor is that she is maintaining a good diet and drinking plenty of water. When a headache starts to appear, try getting her to lie down in a darkened room with a heat pack around her neck before taking too many pain killers, as that is a hard habit to break once established.



- **Hormonal Headaches:** As girls start to form a regular cycle to their periods they may experience hormonal headaches around ovulation or pre-menstrually. This varies from girl to girl and some may have absolutely no trouble at all. Hormonal headaches often feel very constrictive, and may be helped with care with the diet around this time of the month. Avoiding cheese, preservatives, and artificial colorings and flavorings, along with increased water intake may also help to settle hormonal headaches.
- **Cervical Headaches:** Often girls can get headaches caused by tension in the deep small muscles at the top of their neck, at the base of the skull. This is especially common in girls who poke their chin forward in standing or who slouch the upper body forward in sitting. Gentle massage of these muscles, along with heat over the area can help settle the symptoms very quickly. Gentle mobility exercises for the upper back and postural strengthening exercises will help prevent these in the future.
- **Neural Tension Headaches:** As the spine grows longer, the spinal cord and nerves that run down inside it have to lengthen to adapt to their new positions. Unlike muscles, nerves are not very stretchy so it does take some time for them to adjust. If a girl has had a recent growth spurt, or is studying a lot, she will often be very tight in the muscles of the neck and the upper back. This tension may restrict the movement of the nerves that come out of the spine and around into the ribs. This will reduce the sliding of the whole spinal cord, and will make her feel tight when she tries to touch her chin to her chest. Constant strain in this area can be responsible for nagging headaches, especially those that are resistant to pain killers. Gentle massage and focused strengthening of the upper back can help immensely in reducing this kind of headache.

Early Development

My daughter (10 years old) is starting to develop breasts and is very worried about this in ballet. All of her friends are tiny and she feels fat next to them. What do I say to her to make her feel okay about this? She loves to dance but I am worried she will want to quit due to this.

This is one of the hardest issues to deal with as a young dancer, especially if your daughter is the first of her friends to start developing. Little leotards leave nothing to the imagination and the most innocent of comments may affect her greatly.

- **Try and help her see it as a positive:** She is the first of her friends to really grow up. She is not a baby girl any more, and this means that she will soon get to be one of the older girls. Girls who develop early will often get to be in with the older students, while the little ones may get held back.
- **Focus on the things she is good at:** If she is shying to the back of the studio for fear of looking in the mirror, teach her how to use the mirror to check her line, placement and technique, rather than her physique.
- **Try a few private lessons:** If she is worried about what the others think of her, working on her technique in a one-on-one environment could be very helpful in improving other aspects of her dancing so that she feels confident in front of the other students. If she is not focusing on the size of the other girls next to her, she will progress much faster.
- **Talk to her teacher:** Ask the teacher to avoid any comments on your daughters figure for a period of time. Girls often idolize their teacher, and if she is constantly prodding her (already pulled in) tummy in front of the other girls, she will want to do anything to get thinner or will avoid going to class.
- **Encourage other forms of dance:** Get her into a hip hop or street jazz class where she can move, but doesn't have to wear a leotard all the time. The increased exercise will help keep her slim, and she will often have an advantage over girls who have not done ballet before in the ability to learn complex steps.
- **Focus on her love of dance:** Encourage her to put music on at home or listen to her iPod and enjoy actually moving to the music with no rules, no dress code, no mirrors and no scrutiny. Natural response to music is something that is often lost in strict ballet training, and making dance fun will keep her interested.



Stretching and Flexibility

There are hundreds of theories and plenty of myths about the elusive art of flexibility. Dancers will try anything to get more mobile and often push things a little too far. Especially when young dancers are growing rapidly, being pushed into stretches has the potential to do more harm than good. If a 'hamstring' is torn where it attaches onto the sitting bone, there is a long rehabilitation period, involving lots of physical therapy, before she will be dancing again.

I am currently working on producing a DVD course that helps unravel some of the secrets of gaining optimal flexibility, called "Front Splits Fast!". The DVD will be in the format of an educational workshop and a flexibility routine, working on releasing tension in all of the areas that contribute to a limitation in 'the splits'. It is due for release early in 2008. Until then, a little knowledge about what are safe practices for your young dancer may be helpful, so here are answers to a few common questions I get asked:

- My daughter used to be really flexible but now she really struggles to get her legs above 90 degrees! What has happened? She is 12 this summer.
- My daughter and her friend were stretching each other the other day and some of it looked a little crazy. Should they stretch each other? Can they do any damage?
- My daughters dance teacher said that she is Hypermobile. What does this mean and how will it affect her dancing?
- My daughters dance teacher has suggested that she do either Yoga or Pilates to help with her flexibility. What are the differences, and which would be better for her? She is 14.



Reduced Flexibility

**My daughter used to be really flexible but now she really struggles to get her legs above 90 degrees!
What has happened? She is 12 this summer.**

This is actually a really common situation in young dancers. Often as tiny things they have had easy mobility, and with very little stretching were able to drop into the splits effortlessly. Unfortunately, as their bones begin to grow, their mobility can change, sometimes rather rapidly, and they will suddenly need to work quite hard to get back to where they were, in terms of flexibility. As the bones grow in adolescence, it is commonly explained that the muscles, nerves and other soft tissues must adapt to their new positions, especially when growth occurs rapidly. This does play a part, however often the reduction in mobility I have seen during such periods is far more than you would expect from simply the change in bone length.



I feel that a huge part of muscular tension is related to how comfortable we are feeling in our own body. Think about the tension that you get in your own shoulders when you feel stressed. We all hold emotional and psychological tension in our bodies and adolescents are no exception. Often as they are going through a growth phase they feel disjointed from their body, uncoordinated and a little scared at the changes that are going on. Their technical ability may also drop as their limbs change proportion relative to their body, and they may get angry at themselves for not being able to do things as well as they once could.

Girls should understand that this is a very common occurrence and be reassured that it is not permanent! They may feel that they need to do more classes to catch up with their peers, yet the opposite is actually true. Reducing the number of dance classes, and including more hours of gentle limber, Pilates or Yoga classes with a well trained instructor who is used to dealing with young dancers will be very beneficial. This is also an ideal time for dancers to really begin to explore their body. Stretches should be performed to cover all of the body, as often stiffness in the spine can cause restriction in the nerves that run down the back of the legs, mimicking tight hamstrings. Stretches should not be pushed, as the potential for pulling muscles where they attach onto the bones is greatest during a growth spurt. Instead they should be encouraged to gently relax into supported stretches, and focus on discovering how to use the breath to assist stretches.

Frequent massage, whether from a trained professional, or a gentle rub from a family member can be very beneficial in relaxing tight muscles and assisting mobility into stretches. There should be no pain following treatment if done correctly, and definitely no bruising. Some “professionals” go too hard on adolescents (and adults too) in the belief of the old “No pain, No gain.” While some trigger point release techniques may be painful during treatment, this should be “good pain” and very short lived after treatment has ceased.

Partner Stretching

My daughter and her friend were stretching each other the other day and some of it looked a little crazy. Should they stretch each other? Can they do any damage?

Many girls try and help each other stretch out, and will sometimes try things that they have seen on exercise videos or in other classes. However, I would definitely discourage them from doing so as it is risky to be stretched by someone else, even a trained professional. This is especially true when girls are growing, and their growth plates are active. If someone else is applying the stretch, the chance of injury increases. This is because by the time the person being stretched feels that the stretch is going too far, and says something, the stretcher must hear this and then modify their position, by which time it may already be too late for the muscle in question.

Many muscles, for example, the ‘hamstrings’ down the back of the legs (that they stretch trying to get deeper into the splits), actually attach onto a delicate piece of the pelvis around the sitting bones. When students are having a period of growth, there is increased activity in the bone at the point where the hamstrings attach and the attachment point becomes a little weaker. If the muscle is stretched too strongly, especially if this is done at speed and the muscle contracts as a reflex to protect itself, the muscle may tear where it attaches onto the bone, and this can take a long time to heal. In some cases a small piece of bone may actually pull off the pelvis. This is called an “Avulsion Fracture” and needs to be dealt with by a medical professional to avoid any long lasting restrictions.

When dancers are stretching, they must focus on taking things smoothly and slowly through range, and must not bounce at the end of stretches. They should focus on feeling any stretches in the middle of the muscle rather than at either end, especially in adolescence. Introducing the dancer to a gentle Yoga class that focuses on how to use the breath to assist stretches and control placement of the body can help some girls enormously, and I plan to produce a DVD of Yoga for dance students in the near future.



Hypermobility

**My daughters dance teacher said that she is “Hypermobile”
What is this, and what does it mean for her as a dancer?**

Around each of our joints are strong ligaments that help hold our bones together. In some people these ligaments are very tight, while in others they are quite stretchy. If a person has very stretchy or “lax” ligaments we call this “hypermobility”. This means that the amount of movement available at that joint is more than in a person who has tight ligaments. The mobility of the ligaments does not change very rapidly over time. However as we age, if the joints are not moved through their full range regularly, the ligaments may stiffen a little.



Please note that this is different to “flexibility”. Flexibility is how much the muscles can be stretched. It is possible for someone with tight ligaments to have flexible muscles, just as it is possible for a hypermobile individual with stretchy ligaments to have tight muscles. Flexibility can change very rapidly, with girls often feeling ‘tight’ one day and ‘loose’ the next, due to excessive exercise, fatigue, overstretching, or climatic or hormonal change.

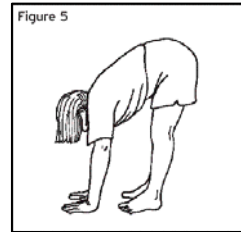
If a dancer is hypermobile, she will often find it easier to get into the positions that others find hard. However, she must take care to keep very strong and stable around her joints to avoid injury. As there is less protection to sideways movements through the ankles and knees, girls with hypermobile legs often get injured in these areas more easily. She should do lots of balance work on a wobble board or similar to increase her stability around these joints.

This is also true in the spinal joints. If there is too much movement in the spine, the tissues that are trying to support it can get inflamed and this can be very painful. Stability exercises focused on the tiny stabilizing muscles of the back and deep abdominals, such as those done in Pilates can be very beneficial. These exercises should begin with very slow, controlled specific isolation of the desired muscles through small ranges of motion, until sufficient conscious control is achieved. Once the dancer can bring these muscles on at will, the range of motion in each exercise can be increased. Please note that exercises involving strong sharp contractions may be very dangerous for very hypermobile dancers.

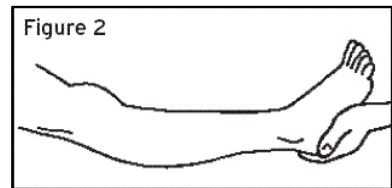
The Beighton Scale is the current diagnostic test used for assessing hypermobility. You can use this to check if your daughter is really hypermobile or just flexible.

Instructions:

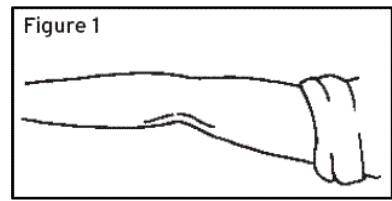
Score one point if she can bend and place her hands flat on the floor without bending her knees.



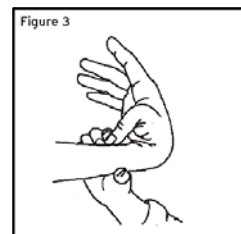
Score one point for each knee that will hyperextend >10 degrees.



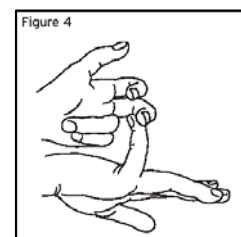
Score one point for each elbow that will hyperextend >10 degrees.



Score one point for each thumb that will bend backwards to touch the forearm.



Score one point for each hand when she can bend the little finger back beyond 90°.



The maximum score that can be attained is 9. There is no universally accepted cut off point, but a score of 4 or more out of 9 is generally accepted as indicative of hypermobility.

Yoga vs. Pilates

My daughters dance teacher has suggested that she do either Yoga or Pilates to help with her flexibility. What are the differences, and which would be better for her? She is 14.


Both Pilates and Yoga can be very beneficial for the young dancer, and I would encourage their exploration for any student serious about dance as a career. Both help individuals learn a lot about their own body, how it can be modified, controlled, released, strengthened and the importance of alignment. When looking for a class or instructor I would try to find someone who has a personal history of dance experience. They will understand the needs of a young dancer more, and often have more affinity for recognizing correct placement in their participants poses. In addition, the smaller the class size, the better and individual instruction is best if this is affordable.

The Pilates Method is a physical fitness system that was developed early in the 20th century by Joseph Pilates. He called his method “Contrology”, which refers to the way the method uses the mind to control the muscles. The program focuses on the core postural muscles that help keep the body balanced and are essential to provide support for the spine. Pilates teaches awareness of breath and alignment of the spine, and strengthens the deep torso muscles which are very important in the dancer. The method is usually taught either in studio sessions, using the various pieces of equipment that Joseph Pilates designed, or in Mat classes, which use only the exercises that do not need equipment. I would recommend Pilates for any dancer with an injury, or one who demonstrates signs of hypermobility. I would suggest doing some private or small group studio work first, to learn the principles correctly, before commencing any mat classes. Mat classes often focus disproportionately on the abdominals, and can result in problems in the front of the hips for some young dancers.



Yoga is much more than just the physical poses that we associate with the term. True yoga actually has eight areas of study, of which only one, ‘Asana’, involves doing the physical poses. However having experience in this area of yoga can be very beneficial for the dancer in learning control of the body, gaining controlled flexibility, mastering breathing, relaxation and meditation techniques. There are many types of yoga and instructors that range from exceptional to terrible. The following few pages outline some commonly advertised forms of yoga so that you can work out which is more appropriate for your daughter.



- **Hatha Yoga;** describes any of the physical practices of yoga. (Remember that yoga has eight limbs, only one of which, asana, involves doing yoga poses.) When you do Iyengar, this is Hatha yoga; when you do Ashtanga, this is Hatha yoga too. “Hatha yoga” can be used interchangeably with “yoga.” If you see a class described as Hatha Yoga, it will most likely be a slow-paced stretching class with some simple breathing exercises and perhaps seated meditation. This is a good place to learn basic poses, relaxation techniques, and become comfortable with yoga. Many people try a Hatha class and love the relaxed feeling, others decide that this form of yoga is too slow and meditative for them.
- **Iyengar Yoga;** The Iyengar method is based on giving primacy to the physical alignment of the body in the poses. In the Iyengar School, it is taught that there is a correct way to do each pose, and that every student will one day be able to attain perfect poses through consistent practice. Once this balance is created in the body, it will be reflected in the mind. One of Iyengar’s major innovations is in the use of props. Today it is quite common to see blankets, blocks, straps, pillows, chairs, and bolsters being used in Yoga studios. The use of these props is comparatively new in the history of yoga and comes directly from Iyengar. The purpose of the props is to assist the student in attaining ideal alignment, even if the body is not yet open enough.
- **Vinyasa Yoga:** Vinyasa is a term that covers a broad range of yoga classes. The word “Vinyasa” means “breath-synchronized movement,” in other words, the teacher will instruct you to move from one pose to the next on an inhale or an exhale. This technique is sometimes also called Vinyasa Flow, or just ‘Flow’ because of the smooth way that the poses run together and become like a dance. A Cat-Cow Stretch is an example of a very simple Vinyasa, because the spine is arched on an inhale and rounded on an exhale. A Sun Salutation sequence is an example of a more complex Vinyasa. Each movement in the series is done on an inhalation or an exhalation. This style still allows for a lot of variety, but will almost certainly include Sun Salutations.
- **Ashtanga Yoga:** Ashtanga, which means “eight limbs” in Sanskrit, is a fast-paced, intense style of yoga practice. A set series of poses is performed, always in the same order. Ashtanga yoga is very physically demanding, because of the constant movement from one pose to the next, but student’s progress at their own pace. I would definitely recommend a significant period of practice in other, slower forms of yoga before attempting Ashtanga yoga. Due to the speed of the class it is important that the participant knows how to correct her own body in each of the poses to avoid injury.
- **Power Yoga:** Power Yoga is a general term used in the west to describe a vigorous, fitness-based approach to Vinyasa-style yoga.

- **Hot Yoga:** Hot Yoga is a series of yoga poses done in a heated room. The room is usually maintained at a temperature of 95-100 degrees. As you can imagine, a vigorous yoga session at this temperature promotes profuse sweating which it is claimed rids the body of toxins. It also makes the body very warm, and therefore more flexible. This form of yoga may be beneficial for people with stiff ligaments, however students who are hypermobile may stretch too far in the heated environment risking injury.
- **Bikram Yoga:** Bikram Choudhury is a Hot Yoga innovator. His method of Hot Yoga is a set series of 26 yoga poses, including two pranayama exercises, each of which is performed twice in a single 90 minute class. Recently, Choudhury was involved in a lawsuit over his attempt to copyright his series of 26 poses done in a hot room. At the heart of the controversy is Choudhury's desire to prevent anyone teaching yoga in a heated room from calling their class "Bikram Yoga." He wanted to reserve this title only for those teachers who are certified by his Yoga College of India and who stick to his prescribed method exactly (including not only the temperature of the room and order of poses, but also the carpet and mirrors in the room, and his approved text). The lawsuit was resolved with an out-of-court settlement in which Choudhury agreed not to sue the members of a San Francisco-based collective of Hot Yoga teachers and they agreed not to use the Bikram name. Bikram remains a very controversial figure in the yoga world.
- **Kundalini Yoga:** Kundalini Yoga is an ancient form of yoga that has only been practiced in the west relatively recently. Kundalini is one of the more spiritual types of yoga. It goes beyond the physical performance of poses with its emphasis on breathing, meditation, and chanting. This might be a little off-putting for a new student to yoga, but the more experienced student may enjoy exploring the other aspects of the practice.



Training Techniques & Injury Prevention

Every different dance teacher will have training techniques that she believes work for her and her students. There are several different schools of ballet technique (RAD, Cecchetti, Vaganova, BBO...) and all of them place focuses on different areas of technique, and demand different levels of technical precision.

However, too much focus on one area can leave other areas vulnerable for injury. For example, too much emphasis on flexibility without adequate strength, especially in hypermobile dancers can lead to problems with instability of joints. Focus on performance without the technical skill to do the movements correctly can easily result in sprained ankles and twisted knees. Pushing for strength without the optimal alignment can result in overuse of muscles that should not be being used.

It is difficult to question a teachers authority, however, if you are concerned at any practices she is using to train you daughter, please to not feel threatened to ask a few questions. If you are really concerned, consult a physical therapist that is used to working with dancers and ask if the techniques are appropriate.

Common questions that are raised in regard to training techniques include;

- My daughters dance teacher asked us to buy leg weights for her to work with in some classes, but she has been complaining of sore hips after just two weeks of doing this. Is this good for her?
- How many hours of dance should my daughter be doing each week? She is “pre-professional” and is 13. She would love to do as much as possible, but I am worried about her development and risk of injury.
- My daughter seems to be always either at the gym, at dancing or out running. She has been doing this the last 6 months and is always moody. She has also been getting frustrated as no matter how hard she practices, she is not getting better in her dancing. Why would this be?
- My daughter is very serious about her dancing and would be devastated if she had an injury. What can she do to help avoid this happening?

Working with Leg Weights

My daughters dance teacher asked us to buy leg weights for her to work with in some classes, but she has been complaining or sore hips after just two weeks of doing this. Is this good for her?

While it is reasonable common practice in many dance schools, and can result in good improvements in strength, using weights on the legs during class must be used with caution. The theory behind using weights is that by doing the exercises under load the dancer will build up strength in the muscles needed for a specific movement, and when the exercises is then performed without the weights, the movements will feel effortless. This can work, however should only be used when the dancer demonstrates excellent technique and control without the weights.

If weights are added before a dancer knows how to correctly use her turnout muscles and deep abdominal stabilizers, she will simply train all the muscles that she is already (incorrectly) using. The muscles that are often substituted are the muscles in the front of the hips, called the hip flexors. Repeated overuse of the hip flexors under load often results in inflammation of the tendons at the front of the hips, and this is especially common in young dancers.



In this situation I would suggest:

- Approach the teacher and raise your concern.
- Explain that your daughter has been having pain since using the weights and ask if there is a technique issue that she has noticed.
- Get your daughter to take a rest from that class for a few weeks, or simply do the class without weights, really focusing on feeling the right muscles in all exercises.
- If needed, have a private lesson with the teacher to get her confident in using all of the correct muscles.
- Once she is able to use the muscles in the right way and has no pain, try using the weights for just part of the class, or on alternate weeks.
- If this is tolerated well, progress to using the weights again, but monitor any signs of discomfort in the hips.

While this may be frustrating for your daughter initially, it will result in much better technique all round, and help prevent any further discomfort in the hips. She will also learn how to really isolate and feel the muscles that should be used in class more specifically, which helps prevent injuries of the knees and lower leg.

Hours of Training

**How many hours of dance should my daughter be doing each week?
She is 'pre-professional' and is 13. She would love to do
as much as possible, but I am worried about her development.**

The issue of how many hours young dancers should be doing is difficult. The girls themselves love to dance and want to be dancing as much as possible. Teachers obviously want their students to be working as hard as possible towards their dreams, and are often used to the grueling schedule of a professional company or school.

Parents of dance students often do not have any benchmark, other than the school that their daughter attends, to gauge what is 'normal' for a dance student of a certain age.

Appropriate hours for student dancers do vary depending on the physical capabilities and professional aspirations of the dancer. A recreational dancer who has less than the physique for dance will tend to get injuries if she does too many hours of training. It must be remembered that until the ages 16-18, most girls are still growing significantly, and excessive exercise in one genre may adversely affect her growth. We must be especially wary of overloading the feet too much in the growing years.

Some simple guidelines are as follows;

- Children under 10: Recreational students who have no desire to be a dancer should aim for 3-5 hours of dance per week. More serious students with the required physical capabilities can do up to 8 hours per week.
- Age 10-14: It has been demonstrated that students under the age of 14 who do more than 10 hours of dance a week have a significantly greater incidence of foot and ankle injuries. If a student's wants to do more than 10 hours per week at this age I would suggest inclusion of Yoga, Pilates, stretch or conditioning classes to make up the extra hours rather than increasing the number of dance classes your daughter is attending. Other sports (Swimming, netball, softball e.t.c) had no influence on rate of injury. (Ref. Hiller & Purnell, 2003)
- Once girls are over the age of 14, hours of dancing may be increased to 'professional' or 'full-time student' levels. Focus must be made on maintaining and improving technique and precision of all movements, and any increase in hours should be done gradually.

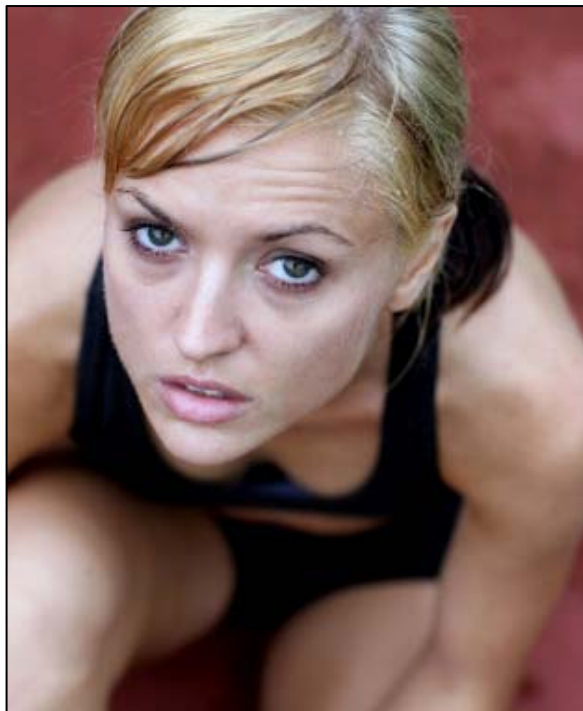
Remember: It is vastly more important for the student to be attentive and committed in class for fewer hours, than to do a large number of classes half-heartedly. If a student is always tired, from doing homework until late at night after dance class, she will not get as much from her lessons as the student who has had a good night's rest and is bright and alert. Time must be allowed to maintain her school grades, as dance is a fickle business and an education is highly important for her long term success.

Overtraining

My daughter seems to be constantly tired and moody. She has also been getting frustrated as no matter how hard and long she practices; she is not getting any better in her dancing. Why would this be?

It is no secret among dancers that in order to improve performance you have to work hard. However, hard training breaks you down and makes you weaker. It is rest that makes you stronger. Physiologic improvement in all sports only occurs during the rest period following hard training. This adaptation is in response to maximal loading of the bodies systems. During recovery periods these systems build to greater levels to compensate for the stress that has been applied, resulting in a higher possible level of performance.

However, many dancers, in an attempt to constantly improve, drive themselves a little too far and can enter the realm of 'Overtraining'. Overtraining can best be defined as the state where the athlete has been repeatedly stressed by training to the point where rest is no longer adequate to allow for recovery.



Overtraining frequently occurs in all kinds of athletes who are training for competitions or a specific event (such as exams or performances) and train beyond the body's ability to recover. Dancers often exercise longer and harder so they can improve. But without adequate rest and recovery, these training regimens can backfire, and actually decrease performance. If sufficient rest is not included in a training program then regeneration cannot occur and performance plateaus. If this imbalance between excess training and inadequate rest persists then performance in all areas will decline.

The "overtraining syndrome" is the name given to the collection of emotional, behavioral, and physical symptoms due to overtraining that has persisted for weeks to months. This is different from the day to day variation in performance and post exercise tiredness that is common in conditioned athletes. Overtraining is marked by cumulative exhaustion that persists even after short recovery periods.

Common warning signs of overtraining include:

- Washed-out feeling, tired, drained, lack of energy
- Mild leg soreness, general achiness
- Pain in muscles and joints
- Sudden drop in performance
- Insomnia
- Headaches
- Decreased immunity (increased number of colds, and sore throats)
- Decrease in training capacity / intensity
- Moodiness and irritability
- Depression
- Loss of enthusiasm for the sport
- Decreased appetite
- Increased incidence of injuries.

If you suspect that your daughter is overtraining, the first thing to do is suggest that she reduce or stop exercising and allow a few days of rest. This will be met with resistance, but perhaps giving her some information on overtraining to read will help. She should drink plenty of fluids, and alter her diet if there are any major imbalances. Cross-training by using different sports can help her discover if she is simply overworking certain muscles and also helps determine if she is just mentally fatigued. A sports massage can also help recharge overused muscles.



Injury Prevention

My daughter is very serious about her dancing and would be devastated if she had an injury. What can she do to help avoid this happening?

Most injury can be directly related to one or more of the following factors;

- **Extrinsic Factors:** Factors outside of the dancers own body. If a dancer perceives any of the following as being present at a performance venue, she must take care to prepare herself to factor this risk into her performance.
 - Temperature of the performance space.
 - Slippery floor.
 - Faulty equipment.
 - Worn equipment (i.e. dancing on 'dead' shoes).
 - Other dancers.
- **Intrinsic Factors:** Factors with the dancers own body and much more under the dancers own control. If a dancer is given choreography that is beyond her physical capabilities she should express her concern to her teacher.
 - Inadequate warm-up.
 - Poor technique.
 - Lack of adequate flexibility.
 - Weakness.
 - Tiredness/Fatigue.
 - Unstable joints.

One of the biggest areas that a dancer can work on is her own strength and agility in performing any movements she must make within a performance. Breaking down any particular combination into its specific movement components, and training these in isolation is the best way to guard against injury. Focus must be made at all times to work movement with the optimal muscular combination. This is not necessarily what the student will naturally use! If the student is unsure of what muscles should be being worked in any particular exercise or step, she should ask her teacher (in a quiet time or private lesson) or use one of the dance resources I have developed to teach young dancers the anatomical basics behind their most common exercises.



Growth Related Injuries

As adolescent's bones grow, irritation of the growth plates can often occur, especially in students who are doing lots of dancing, or other sports. Several major muscle groups in the legs have tendons that attach directly onto the growth plates, most notably just under the knee, and at the back of the ankle. As the repeated action of these muscles pull on the growth plate, irritation can occur. Keeping the muscles around these joints flexible is important in preventing growth plate injuries, as is improving the stability of the joints above and below the affected one, to reduce strain in the area.

The two most common growth related injuries are in the knee and the ankle and will be described in detail on the next few pages; however it is possible to get growth plate injuries in other areas. Young boys especially may have problems with the growth plate in their hips, and if they experience sudden sharp pain in the groin or hip, and find it difficult to walk, they should see a doctor as soon as possible. The growth plate at the top of the thigh bone may shift if there has been a rapid growth phase. This is called a "Slipped Femoral Epiphysis", and needs to be addressed as soon as possible.

Other children may experience aching or sharp pains in their legs at night, which is often an indicator of rapid cell growth in certain points of bone. If the pain is severe, or continues for more than a few days, it would be wise to consult a medical professional.

Many of these growth related injuries are very common and are easily treated. It is important however, that your child is assessed by a health professional who understands the specific needs of a young sports person to get appropriate treatment, as many therapists may advise the student to just discontinue dancing. While these injuries are common, there is a lot that you and your child can do to reduce the symptoms of the disorder, hasten healing and prevent any long term restriction or disability.

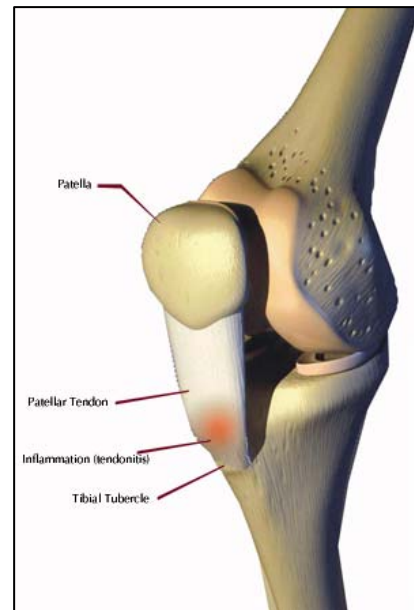
- My daughter has been diagnosed with "Osgood Schlatters Disease." The doctor didn't really explain what it was, and said to just stop dancing and she would grow out of it. She loves ballet and does not want to stop but it really hurts her to dance. Is there anything else we can do?
- My daughter gets lots of pain on the back of her heels when she dances and does gymnastics. Sometimes just walking in her school shoes can bring it on. What should she do?

Osgood Schlatters Disease

**My daughter has been diagnosed with “Osgood Schlatters Disease.”
The Doctor didn’t really explain what it was, and said to just stop
dancing and she would grow out of it. She loves ballet and does not
want to stop but it really hurts her to dance.
Is there anything else we can do?**

Osgood Schlatters disease is not actually a disease, but a syndrome that was just named after the doctor who first described it, hence its rather scary name! It is very common in adolescent athletes, due to an unfortunate anatomical situation.

In the knee, there is a tendon (the patella tendon), that connects the kneecap (patella) onto the shin bone (tibia). The knee cap is very important in acting as a pulley, to transfer force through the knee without the muscles and tendons rubbing over the joint. Unfortunately, where the tendon attaches onto the tibia is exactly where the growth plate is situated in young adults. During periods of growth, there is a lot of cell turnover happening in this area, and if the tendon is repeatedly pulled (as in running and jumping) an area of inflammation may occur around the growth plate. In severe cases, a small piece of bone may actually pull up, away from the shin bone, and a visible lump will be seen at the top of the shin.



While excessive jumping will aggravate the condition, your daughter should not have to stop ballet completely. She should abstain from jumping when the knees are tender, and must continually focus on correct placement of the feet and hips. She should consult a sports physical therapist who is accustomed to dealing with youths as there are also many things that she can do to decrease the symptoms to allow her to continue dancing, including;



- Gentle stretching of the Quadriceps.
- Strengthening the buttock muscles and other muscles around the hips to reduce the load on the knees.
- Taping techniques to redistribute the load going through the tendon.
- Icing the tendon after exercise, on a gentle stretch, to reduce the amount of inflammation.
- Using Rest, Ice, Compression, and Elevation to settle any sudden increases in pain.

Severs Disease

My daughter gets lots of pain on the back of her heels when she dances and does gymnastics. Sometimes just walking in her school shoes can bring it on. What should she do?

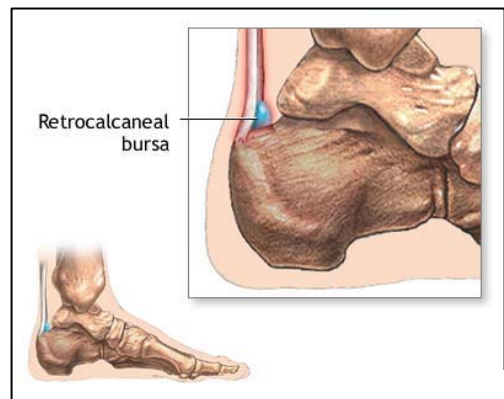
There are several things that may be causing the problem with pain in the back of the ankle, however the two most common are:

Retro-Calcaneal bursitis

or

Severs Disease

Retro-Calcaneal bursitis: At the back of the ankle, the Achilles tendon attaches to the heel bone. To prevent the tendon rubbing on the bone, there is a small sac of fluid (called a bursa) in between the tendon and the bone. Occasionally, if there is too much pressure over this area, the bursa may become inflamed and the area can get quite painful. This is called “Bursitis” (inflammation of the bursa). The term ‘retro-Calcaneal’ just means “behind the heel bone”.

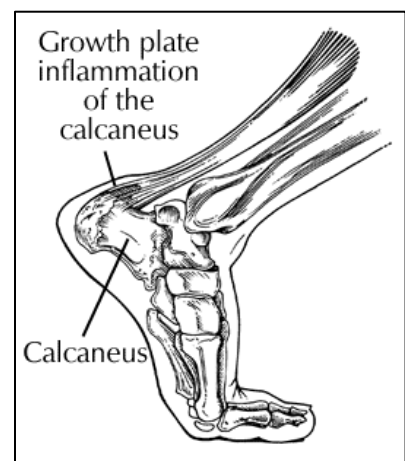


Common causes of this include:

- Tight calf muscles.
- Shoes that are too small.
- Repetitive trauma.
- An unusual lump on the heel bone (Haglund deformity).

Severs Disease: Severs Disease is not actually a disease. It is a disorder of local inflammation on the heel that may mimic Achilles Tendonopathy. The Achilles tendon attaches to the site of the major growth plate in the heel bone (Calcaneus) and repetitive pulling at the attachment site during jumping or pointe work may cause irritation, which can be quite painful. This is quite common in young athletes during periods of growth, especially those age 8 – 12 years of age.

For both of these disorders, the treatment is quite similar. While rest is usually prescribed, it is perhaps more important to learn techniques to reduce symptoms and promote rapid healing.



Treatment may include:

- Training of the intrinsic muscles of the feet support the arches and to reduce the load on the big calf muscles.
- Taping techniques to reduce the load that is put on the Achilles attachment point.
- Soft tissue massage to release tight calves.
- Padding on either side of the irritated area to reduce the pressure (padding over the area may increase the pressure and further aggravate symptoms).
- Pelvic stability exercises.
- Gluteal activation exercises and re-education of walking.
- Gentle stretching of the calves.
- Restricted hours of dance and avoidance of certain activities within classes.
- Cessation of pointe work.
- Gel heel cups in street shoes.
- Soft “orthotic” devices in street and sports shoes.

Return to full classes should be taken gradually when symptoms are settled, and care should be taken if there is a second growth spurt. Always be guided by your doctor or physical therapist for the most appropriate time.

A good way to monitor growth rate is to measure your daughter’s height every two weeks against the side of a door (remember to take off her shoes!). This will give you a guide as to when she must take care with the amount of hours of dance she is doing, especially involving jumping, to prevent the likely hood of the severs disease reoccurring or the development of other pains related to bony growth.



SECTION 3

The Psychological Development of a Dancer

- Introduction
- Formation of identity
- “Who am I? Why am I here?”
- What are her values?
- Changing focus
- Perfectionism
- Dealing with nervousness
- Recovering from injury
- Coping with rejection
- Body image
- Adjusting to a new school
- Competition
- The effect of consumerism on identity

Introduction

There is so much written about child, adolescent and adult psychology and the literature can often become quite confusing. This is especially so in the situation when we have adolescent children that can suddenly become very hard to interact with. Parents often want to know simple practical tools or solutions that they can apply immediately to help their children through this tough stage, rather than wade through pages of academic text.

When involved heavily in dance, youths are often in situations that test their psychological boundaries, whether it be coping with changing dance schools, dealing with nerves at competitions or dealing with eating disorders. This section is designed to be as easy to use as possible, with answers to common questions helping with ideas of ways to deal with troubled teens, as well as an overview of common reasons for the issues to start in the first place.

I am a Physiotherapist, not a Psychologist; however my partner has a strong background in Psychology, as well as comprehensive training in NLP, CBT and various other systems of working with the mind. It is through many in-depth discussions with him on the issues that young dancers face that this section came about. I have learnt so much from these talks, about myself, about dance and about how our minds work. Revisiting the problems I faced as a young dancer armed with a new understanding of the power of the mind has been a fascinating journey. I thank him so much for opening my mind to the different ways of seeing many situations.

I know that so many parents feel unprepared to deal with the challenges that today's teenagers face, and wanted to share the knowledge I have gained in this process. As well as helping you deal with your child's anxieties, some of the tips may also be applicable to other areas of your life as well. I do hope you enjoy reading this section, as much as I have putting it together.



Formation of Identity

While the ‘symptoms’ or presentation of each issue may differ, just about all ‘disorders’ or difficulties that we face really can be narrowed down to one thing; Issues with the formation of our identity within our community. Almost all of the issues that arise as children hit their teens are linked to them struggling with their identity.

Our children live in a different day and age to the one that most of us experienced as youngsters. When we were growing up our personal definition most likely came from within an intimate community and from our family. Our parents chose what TV programs we watched, what sports we got introduced to, and what we were generally exposed to. They took us to the local school, where we were educated alongside children from similar backgrounds and religions. We forged an identity based on our family, our beliefs and our position in society.

Today, personal definition may not come from those same places. Today youths are exposed to an extraordinary wealth and variety of media that influences them in so many ways, and this may be in stark contrast to the messages coming from their family. As such, children will often aspire to be a pop-star such as Christina Aguilera, or look to exciting fictitious characters such as Harry Potter, rather than to real-life role models within their families. This is not to say that in the past we didn’t have film or music stars to look up to. We had our music idols and superheroes, but they had less direct impact on us, and were still usually perceived as being somewhat removed from our reality.

When children are exposed to differing role-models, this may cause some internal dialogue that causes them to question both what they ‘should’ aspire to be, and also as to the validity of their parents authority. They will often compare their friends’ parents against their own, to work out what is most important to society, and therefore what it is important for them to achieve. Today’s parents are in some ways often more sophisticated than our parents were, however this can sometimes be a detrimental thing in the identity formation of our children. Potentially, in our sophistication, we may not demonstrate as much authority to our children as our parents did with us. Children are often treated more like friends, and while that friendship scenario is not necessarily a bad thing, children may sometimes struggle to create a strong structural identity within that environment.

“Who am I..?. Why am I here..?.”

When forming their identity, a lot of adolescents will try to create answers to these questions. Not necessarily on a deep spiritual level, but just to get by every day. It is at this point of looking for definition that a lot of problems in adolescence start. If there is a lack of satisfaction in their own definition, they start asking further questions.

“What identity is going to make me most acceptable to those around me? What identity is going to get me my biggest outcome?”

This is where most issues start. Where the eating disorders start, the behavioral disorders begin to manifest and where self esteem issues start to develop. Throughout childhood and adolescence we are all on a journey filled with ‘trial and error’, or more correctly ‘trial and feedback’ situations. We make an action, and look at what happens. If we like the result, or benefit from it in some way, we will do it again. If we decide that action does not fit our needs, then we will try a different action and assess the effect it has. Any repeated behavior, however undesirable it may seem, must always be serving the individual in some way.

We need to look at our children and work out what is important to them, to work out what is driving their behavior.

- Is significance important?
- Is attention important?
- Is belonging to a group important?
- Is independence important?
- Is fame important?
- Is contribution to their community important?

There may be many different qualities that are desirable to a teenager, yet if you work out even some of what is important to your child, you can begin to see the motives for what they do and what they don't do. There are a lot of kids who will experiment with drugs because it is what the rest of their friends are doing, and we have always called this “peer pressure” But actually it's not. It's more about belonging. While you do not have to endorse their behavior, you can often begin to understand the situation, and therefore influence it more when you recognize that:

“My child is trying to belong to their group, yet I am trying to fight this sense of belonging. No wonder there is friction between us!”



What Are Her Values?

Determining what values your daughter hold in relation to ballet and to her life in general, can be really helpful in knowing how to work with her to achieve her goals.

- Is she in dancing to keep fit, flexible and attractive?
- Is she in it because she loves to dance?
- Does she think it is a 'respectable' career?
- Does she want to be famous?
- Is she doing it because she thinks you want her to?

Working out what drives her, and where she wants to go can be an interesting journey for both of you. Many girls subconsciously assume variations of their parent's values (while some of them consciously go against them...!) The period of puberty is often a time when she may begin to 'try on' different personalities and personas, test your boundaries, and readjust her values according to what is going on around her. Being supportive and quietly confident of your own values in life may give her a stable role model to base herself on.

Most dance schools are very careful with what moves are performed and what costumes are worn, however I do hear from some parents who are worried about what their daughter is being told to do on stage. Dealing with questionable choreography is a delicate subject, and the best approach is to quietly approach the teacher involved out of class time with any concerns. Girls involved in competitions will often want to push the boundaries to break the mould yet this should never compromise her dignity or modesty.

Encourage your daughter to feel her dancing from the inside out. Rather than focusing on what others are seeing all the time, get her to feel the movements internally and let the result be seen as a consequence. If girls can keep in touch with their natural ability this will shine through in any performance, and will make any piece much more powerful. This in turn will challenge teachers to choreograph more intelligent pieces for her, rather than the show-pony routines of various tricks strung together that are often seen at competitions.

Encourage her to watch lots of different dancers for inspiration. See if you can both see past the height of arabesque or number of turns and find some pieces that have meaning or tell a story.



Changing Focus

My child is 14 and is heavily into dance. A few comments have been made recently that indicate that she feels that she must dance professionally, not necessarily because she wants it, but because she is not good at anything else and has spent so much time and effort on her dance so far. How do I get her to see that she is still so young and she has other options?

This is an interesting situation and you must take into account what else is going on around the student. A 14 year will usually not feel that they have lost all options unless this concept has been introduced to them by someone else: A teacher, a friend, or even someone within the family. Start by asking yourself...

“What is her most important value? Is it a sense of responsibility? Is she doing this out of guilt and obligation? Is she worried that if she were to quit right now that their friends, and parents and teachers will be devastated or disappointed in her?”

A conversation may need to happen that says “Hey sweetie...We didn’t take you dance for this to be your everything ... That was what you wanted at the time, and we supported it... If you want out you can have out... If you want more education we can do that... We will love you and support you in whatever you want to do.” Let her know that her dancing has nothing to do with your love for her, and that you will be happiest when she is doing whatever it is she really wants to do.

Yes, it may be scary letting go of what she knows, and the social implications of stopping dance are often large. Her whole circle of friends will usually be intertwined with her involvement in dance, yet they will not always be there throughout her career. Let her know that whether or not she stays in dance, you will help her through the rough patches. Explain that most of us morph through several identities before we find the one that fits us most, and moving away from of something you have know for a long time is hard. However this is no reason not to look for other things that we may love more.

Just about everything a 14 year old does is relative to her family in some way. Either to impress them; prove herself to them; get back at them for something else or maybe to simply get more love and attention from them. Look at your relationship and see if there are any patterns that may indicate a starting point for her insecurity in her other talents.



Perfectionism

My daughter is the ultimate perfectionist. Even when she does a flawless performance she thinks that she is terrible and scrutinizes every move. Is this healthy?

Ballet is one of the most competitive industries in the world. There are so few positions at the top, and every girl wants to be a prima ballerina. This is a perfect example of a mismatch between supply and demand. There is a massive, massive supply of budding ballerinas, and very little demand for professional classical dancers. Even though each large company may have a feeder school, positions only become available in a company if someone is out due to retirement, injury or reduced performance. They do not just rotate company members to give the new girl a shot. When it comes to this kind of reality and that level of competition, a dancer will actually need a certain amount of perfectionism to get to the top.

Every dancer needs to do the perfectionist thing. That's what makes ballet so beautiful. There is a sense of perfection and being beyond reality. However it is important to look at her motivation. Girls will use perfection and imperfection as a motivation to keep dancing. Were they ever to be satisfied they might give up. However, if they constantly scrutinize everything they do then they will keep striving towards perfection. The girls who have succeeded, the girls who are number one all have the perfectionism streak, but they also have the ability to sense satisfaction. When you look at a dancer who does nothing but criticize and is critical of herself and the dancing, there is always this angst in her energy. There is angst in the way she dances. There is this lack of satisfaction. But watching a dancer who can look at herself and be not forgiving, but appreciative when she does hit the mark, is a totally different experience.

Not only can you judge and critique but can you appreciate your work?

When you hit the mark, do you notice it? Or don't you?

Do you ignore all the times you got it right and focus solely on the time you didn't?

It's not about stopping a dancer from being a perfectionist, but asking her to add appreciation for hitting the mark. The error is often in the parents and in the teachers who try to stop girls from being critical. We don't want her to stop being critical, as an athlete that is a brilliant, and crucial trait. You need that competitive edge in this world. But just make sure that every time she hits the mark she jumps up and down once. Then she can go back to being critical, as critical as she likes! The game is not to stop the critique, but to also get the balance that says "I got it!" Then she knows why she is being critical. There is a purpose for the critique. But if she is never going to actually recognize hitting it, then she will always just be critical and it is a downward spiral. If she can then convert all of her criticisms into completions, then there will be a celebration that night!

Why would you be critical if you unless you want perfection?

And if you want perfection, why don't you want to recognize it when it happens?

Dealing With Nervousness

My daughter makes herself so nervous before she goes on stage. She is a beautiful dancer but freezes up right before she performs. Sometimes she will even vomit she is so wound up. What can we do to help her through this?

This is a problem that is very common, yet so simple to address. The girl who freaks herself out before a performance or audition is always fantasizing about all of the things that could possibly go wrong. In her head, she is thinking ***“I am going to get rejected, I am going to fail, and I am going to stuff up”*** She is using her brain and her mind in the most negative way that she can. The joke is this... ‘Fear’ and ‘Excitement’ really look the same and feel the same. It’s just a question of the labels you are using. She is feeling excited, but is then using the same energy against her own performance by labeling it as fear/anxiety.

It’s about the ability to take those butterflies and have them fly in formation

Far too often we try to get our children not think negatively. We tell them... ***“Don’t be negative... Don’t be negative... Don’t be negative...”*** But in doing that, what’s to stop them from doing this internally? Nothing! They are going to continue to do this quietly and then feel bad about it because they know that they should be thinking positively. One way to counter this is to talk to her way before the competition (Do not do this just before she goes on stage!) Ask her to visualize all of the bad things that could possibly go wrong and feel them in her body. The question becomes;

Can I deliberately visualize all the things that could go wrong, and be comfortable with that for a second?

What’s the worst that could happen? Okay, so you could fall on your face. You could be dropped from a lift. You could forget your steps... Are you okay with that?

- No?
- Can we laugh about it?
- Can we make a joke of it?
- Will it change how much love I have for you?
- Will it change your chances of being a dancer in the slightest?
- Can we take the energy away from it?

It is about being honest. Can we talk about all the things we don’t want to talk about? Or should we just ignore them? By lightening the situation, and realising that any ‘mistake’ will not change her governing value, whether this is your love for her, the respect of her friends or her ballet career, you will diffuse the situation, and she will have far less anxiety about performing, as the consequences are no longer as extreme. If there is a lot at stake in a certain competition, for example when competing for a scholarship, understanding that life will carry on despite the result does help enormously. Going into the competition with a lighthearted approach will often set her apart from the other competitors with an effortless quality to the performance making all the difference to the judges. Encourage her to focus on the dance, the communication of the movement, the feeling, the expression in the piece. If she is focused on feeling the dance from within, rather than being an external observer, she is far less likely to view herself making ‘mistakes’.

Recovering From Injury

My daughter has been injured and been on reduced hours of dancing for several months. She is devastated and feels that she will never catch up to her friends again. How do I help her to not be so depressed?

This is a really common situation, and during a serious injury is one time when many girls get very despondent and can lose their love of dance. However there are lots of things that she can do while not dancing to her full capacity that can speed up her recovery, and will often make her a better dancer after she returns. Knowing this may help keep her spirits up, and induce a healthy interest in learning about her own body. Tools that she can use may include:

- Visualisation
- Watching class
- Watching Videos of professional dancers
- Physical Therapy
- Pilates and specific exercise retraining
- Massage



One of the first things a lot of people violate both during regular training and especially during injury is valuing the impact of **psychological training**. Several studies have shown that mental rehearsal is as effective if not more so than physical training, and this can be used to great advantage in rehabilitating the injured dancer. It may be very beneficial to discuss this aspect with both your daughters Physical Therapist and also her Dance Teacher for effective integration into her rehabilitation program.

Visualization of the correct movement in any sport can result in training of the neurological memory of that movement. Our brain actually finds it difficult to discern between a true memory and visualization, so we can use this to our advantage. For example; one study was conducted using a group of basketball players shooting hoops. Initially they were all tested with free throws. Then, one group did nothing, one group practiced physically shooting hoops and one group did pure visualization training of successfully shooting hoops. This was continued for three weeks of 'training'. In the results, the group that did nothing had no improvement, and the group that did purely mental rehearsal of the activity had only slightly less improvement than the group that practiced physically shooting hoops.

If your daughter can not do her regular class, introduce her to the concept of spending that same time visualizing the steps instead. She will retain the knowledge of the repertoire, and by visualizing the correct technique and form, may actually give her an edge over the other students when she returns to class as she has been 'practicing' with perfect technique. When she gets back to full training, she can do the physical training combined with the visualization and catch up in no time.

This technique helps bring the power back to the dancer, as opposed to this depression about not being able to do the physical act of dance. Ask her if she can visualize each step clearly and succinctly, and ‘feel’ the movement in her muscles (without moving areas that are injured too much). If she can visualize the injured part being healthy, this can actually accelerate the recovery by keeping the neuromuscular pathways that carry the message from the brain to those muscles active.

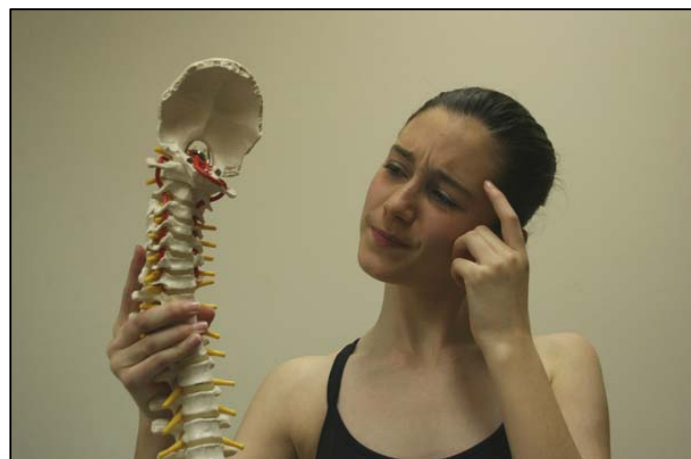
Watching class can teach a dancer so much about the importance of technique, and all of the corrections a teacher gives in class. I remember being astounded when watching class, out with a major leg injury, at how students seemed to ignore corrections from the teacher. I remember thinking how frustrating for the teacher not getting a response, when until then, I had just thought that she was nagging, and that we were all fine. This also helps to keep the knowledge of the choreography engrained in the dancers’ memory.

Watching videos, DVDs or clips of famous dancers on www.youtube.com can actually be beneficial to the young and injured dancer if used in the right way. Get your daughter to watch a variation, and then close her eyes and visualize herself doing that same piece. Often in our mind we can dance far more beautifully than we have previously, and the flow on effect from this can be extraordinary, especially in terms of performance and dramatization skills. Get her to comment on the quality of the dance, not just the tricks, and see what factors she is drawn to in watching others dance. This gives a good area to work on while physically she may not be able to do as much as normal.



Finding a good **Physical Therapist** is essential to a quick and productive recovery, and ideally choose one that has personal experience with dance. Movement and technique re-education is important in the rehabilitation of any injury, but the dancer needs this more than most. As a dancer performs movements repetitively and pushes her body to the extreme, it is essential that technique is corrected at a base level, and that your daughter understands the anatomy and principles behind why her injury has actually happened. Inclusion of **Pilates** based exercise rehabilitation can also be invaluable to returning the dancer to full strength, and should ideally even improve her beyond where she was before the injury. Many therapists will now include this in her Physical Therapy program, or direct you to a good studio that works with dancers.

Obviously if none of the above has happened, and the depression of injury has started to set in, your daughter may need some special treatment. Ask her dance teacher or therapist to give her a special tip that may not have been given to the other girls on how she can accelerate her training. Let her know that if you haven’t improved after 3 weeks, she can be as depressed as she wants! But until then, she can’t be, and if there is improvement, she is going to keep doing it.



Coping With Rejection

My daughter has been applying for companies, but nobody wants her. She has worked all her life for this and is now devastated. What can we do as she is getting really depressed?

This is unfortunately quite a common scenario. Many girls work for years towards a dream of being a principal ballerina in a major company, and then get devastated when this dream is not fulfilled as easily as they would have liked. In reality there are thousands of talented girls all competing for a few places coveted places in schools and companies all around the world, and the standards are being raised every year. To be considered for any company she obviously needs to either put forward some video footage, or participate in an audition process for people to reject her. She must ask herself...

Why am I being rejected?

Where am I weak? Where are the places I am not up to scratch? What are my strengths?

A dancer must be able to analyze her own technique, look at her own video, and see it as an external viewer. Alternatively, she must approach the companies or individuals who have auditioned her or take on previous suggestions from teachers and adjudicators and work with them to improve her skills. If she is not prepared to ask these questions, or deal with the answers, she will not have a career in dance. If she takes any criticism personally, she will never improve. It is important that she understands that a rejection from a company is not personal. They do not know her. There were simply other people in the audition who performed better than she did. If being a dancer is really her heart's desire, she will do anything to make herself better. She may need to get a job to support herself financially and then work specifically on her weaknesses day and night until she gets them right. Far too many girls continue to take classes repeating the same mistakes and flaws day after day and never demand any more of themselves.

Sometimes it is a good idea to take classes with different teachers, to pick up things her original teachers may have missed. I would also recommend that she try other movement classes including Yoga, Pilates, Feldenkrais or Alexander Technique to begin really learning about her body and different forms of movement. Contemporary Dance and Jazz should both be a strong component of any dancer looking to turn professional even if she wants to do solely classical dance. They all help move the body in different ways to ballet, and will make her a much more versatile dancer. Other dance forms such as Flamenco or even Salsa can give so much to the quality and ease of movement a dancer displays. She must love to *Dance*, not just 'do' ballet.

Some dancers get into the mindset of... "I am too tall/short/fat/wide... etc and that's why I never get picked." This is a dangerous scenario to get into and is often used as a scapegoat by girls who do not want to take responsibility for their own lack of success. If a dancer really has a body non-conducive to dance, she will hopefully have been told this long before she begins applying for companies. However, If a dancer is extraordinary in other areas, he or she can often overcome physical 'flaws' and wow audiences on her own accord. Maybe she is tall, but this gives her the most amazing legs, so she must learn to use that to her advantage. She may be tiny, but if she is extraordinarily quick and light, she may be exactly what a company is looking for.

Body Image

My daughter is very thin and sees even slight lumps of skin as huge rolls of fat. How do we help her see how beautiful she is?

Inherent in this question lies the true issue. *It's not about how beautiful she is.* In a society driven by marketed beauty splashed across every magazine cover, the desire to be 'beautiful' is the downfall of many. The current marketing definitions of beauty can often be hilarious. Simply look through the ages at what has been 'beautiful' over the last century. From voluptuous rolls indicating wealth, to 'Twiggy' with her oversized lashes and boyish frame and now the 'size zero' phenomenon that is extremely scary for any parent. Magazines and shows such as extreme makeover constantly tell us that being beautiful makes us loveable. Unfortunately, this makes the norm un-beautiful and therefore un-lovable.

Help your daughter to see that she is a human being not an object. She must have a purpose beyond her looks, or like so many people on this planet, she will have nothing to live for. When there is nothing to strive for, nothing to look up to it is very easy to question why it is all worth it, or to become self obsessed. While many of today's parents were brought up with some religious affiliation, much of the next generation believes only in the dollar. If you want your child to have a healthy outcome, introduce her to a healthy involvement within her community. Connect with your children and know what it is that you believe in.

Young girls will often have an image of what their body should look like. How thin they should be; where they should have tattoos or piercings and whether doing all of that makes them cool, funky or acceptable. Most often, this image is based on airbrushed images of celebrity icons. Magazines are plastered with pictures of Victoria Beckham, Britney Spears, Lindsay Lohan, Nicole Ritchie and Paris Hilton.

Are these the role models we want for our Daughters?



While all of these girls all make a lot of money, and are famous and popular and "have everything they could want" they all have more than their fare share of issues. Is that really the life you want for your child? Is how they dress liberating? Showing a G-string, wearing a little top with her bust popping out? Is that what we want our women to be? Is that what we want our daughters to become? If these are not the models that we want then we need to talk to them. It starts by coming to a point of responsibility. We need to talk to them like adults, and just have an honest heart to heart. It is not about controlling them or telling them what to do, but to give them choices, and help them realize the consequences of their decisions. Then hopefully with awareness of the idea of identity and responsibility and respect for themselves, in time they will begin to look around themselves and go "Wow. Isn't that interesting..."

Adjusting to a New School

My daughter is feeling isolated in her new dance school. She has moved from another, smaller and friendlier school to be more serious with her dance but the girls at the new school are really nasty. How can she deal with this?

There are often initial issues of isolation from the other children in a new school, and dance schools are sometimes very hard to join later in adolescence. Many of the girls at a school will have been friends for ever and will already have their hierarchical system all worked out. Often a newcomer is treated with disdain or downright rudeness until she proves herself as worthy in a new school.

Ideally, she will remember why she is dancing in the first place. If she loves dancing, and is not just in it for the friendships, then get her to absorb herself in her work. It is always a challenge with a new teacher, and getting off to a good start with the teacher is most important.

There may be issues if she is talented and is taking attention from someone who is used to being the best in the class. Explain to her that another student jealous at her ability is actually a compliment, and that this happens often in life. If dancing is her passion, then help her to understand that it is not her problem if others are threatened by this. If she become the best dancer and that offends somebody then it is their problem, not hers. We can never limit ourselves based on others expectations of what we should do.

Most of the problem socially will usually be with one or two ring leaders in a group of girls. A good idea is for your daughter to build bridges with others in the group, and gradually she will be accepted. Helping others out with different stretches or exercises she has learnt in her other school can be good ways to break the ice.



Competition

I know that dancers have a tough time coping with rejection and dealing with losses at competitions. How can I help my daughter prepare herself so she comes through these situations easily?

Throughout life there will always be competition, failure and rejection. It cannot, and should not be avoided; however there are tools that you can use to help your child deal with the situation - to grow from it, rather than to suffer from it. There is definitely such a thing as healthy competition, however sometimes it can become a little extreme in a teenagers mind.



We live a society that is becoming more and more competitive. There are millions of people with the same dream to become a principal dancer in one of the top companies, and therefore the standard of performance is constantly being pushed higher. Going into a competition, help your daughter to remain calm by talking to her about the following thoughts;

“Part of competition is learning how to lose. Be faithful to yourself and hold your poise if things don’t go the way you would like. Winning or losing in a competition doesn’t make you better or worse as a person, but it gives you a chance to learn. Try and understand that the reason you lost is because another person performed better than you did on that particular day. Not because the person is any better than you, or prettier than you, or destined to be wonderful. They just managed to get it all together on the day.”

You are not defined by your result at one competition.

“Look at what the other dancers are doing and use this as an opportunity to learn. Know that as long as you have the capacity to learn, you have the capacity to improve. Have respect for each other person and be able to congratulate them. Remember that a competition is not just about you. It is a learning experience for all the other girls too.

Get your daughter to ask herself some questions;

- What was the other person doing that I am not doing?
- How can I learn from this situation?
- How can I prepare myself next time?
- Do I need to change the way I am doing something?

Having a strong self identity helps enormously with dealing with disappointment. Especially if we have been criticized by an adjudicator, it is important to remember that people are entitled to their opinion, but we do not necessarily have to take it on personally. Teach her how to take the correction, but not as a criticism. Help her understand that even the strongest of us feel a little disappointed at times, yet it is how we deal with this that matters. Disappointment can lead to a point of self destruction if it is left to manifest, so it is essential that she learn how to respond effectively. If we continue to brood on something it can often transform into something much more than the initial incident.

A good thing to establish in any competitive situation is where she really feels the competition. Obviously there may be a number of factors present, however usually one is predominant.

- Is it an internal competition, within her own mind, in order to improve her dancing?
- Is it a competition within the family, for example, against an older sibling who has previously been in the same position?
- Is it a competition among friends at the same dance school, each striving to be number one?
- Or perhaps a competition against other students, or other dance schools, in order to save face, or prove that she is better than them.

The next thing is to watch her response to “winning” or “losing”. Depending on where the competition is focused, and the personality of the child, this may vary enormously.

- A child may do well in an exam, or win a competition, yet not get as high a mark as their sibling 3 years before, and berate themselves for this.
- Alternatively, a child may come third, yet do their best performance ever, and be completely satisfied with their effort.
- Does “winning” install a sense of stability, a confidence within the child, or fuel an egotistical side of their personality.
- Does the child actually enjoy a ‘win’ or are they already fearful of not living up to it next time?
- Does “losing” encourage them to work more conscientiously towards the next situation, or plunge them into despair that they are “useless, and never going to get it right”?

Now, we all know that it is hard for all parties to stay calm during the highly charged times of hearing the results from any formal competition. However, the calmer you can stay in these times, the better. Try not to put down the other competitors if your child has been “beaten” (however tempting this may be!). Support your child, and focus on the positives of their own performance. Once the emotion of the situation has settled there may be a time for you and the teacher to discuss how the child can work on specific areas to improve their next performance. Try not to do this in a negative way at the time of the performance, as we have all seen some parents doing. “Why didn’t you just smile!?” or “How many times have I told you not to do that?” The highly charged emotions at the time do not really gel with this kind of correction!

Simply taking a bit of a step back in any situation can help in seeing it in other ways. If we repeatedly ask ourselves “What went wrong?” our mind will come up with hundreds of reasons why. However if we ask “How can I do better next time?” we will automatically begin thinking of creative ways to improve ourselves!

The Effect of Consumerism on Identity

There is one mother I know who was struggling with an issue with her 10 year old daughter. All the rest of her daughters' class at school had recently been given iPods, yet together with her husband they had decided that it was not really necessary for the daughter to have one. Not because they couldn't afford it, but because it just wasn't a priority. Unfortunately though, that's exactly what it looked like to the child, and her friends. The mother was determined not to give in to the girl, and was confronted with the following statement.

We must be poor because you can't give me an iPod.

We live in a consumerist society. There is a marketing engine in our society that starts to train our young people as future consumers. It tells them what they should like and what they shouldn't like and it's often a constant uphill battle for parents to counter this. We are in a place where a consumerist mentality is installed into children at a very young age so that they want things. For example: There is an online site called 'Club Penguin' that is extremely popular with 8 – 14 year olds. It is a virtual world where kids can earn money to buy things to furnish their home, and clothes to wear. It teaches them that money can buy things that will shape their identity. When children are surrounded with messages such as this we must make special efforts to help them understand what identity is really about.

It's all about choices.

A consumer is someone who has developed an identity, and who likes to make choices. This is exactly how most marketing at youths is angled. "Choose this over this, and express your freedom". The fact that we can choose between Pepsi and Coke says to us that we are free.



This situation is prevalent in everything from soft drinks to clothing. Girls will often work at a menial job for weeks just to buy a particular branded pair of jeans as this is how they have learnt to create their identity. They will rarely realize that it is a marketing ploy and a game. However, if our children are aware from an early age that marketing executives from the big companies are paid to work out how to manipulate them into acting a certain way, they may become a little more curious and cautious to run with the pack towards the latest craze.

Far too often we all see kids telling their parents what to do. The parents feel emotionally controlled by their children because they don't want to be embarrassed in front other parents. They feel that there is this social taboo, this social innuendo that says...

You're not a good parent because you don't give your child the things that I give mine.

A game gets played. You feel guilty if you don't give your child the things that you wanted when you were a child. You know that if you didn't get something when you were young you felt angry and deprived. You always swore that you were going to give your child everything they wanted. And now you are in a corner. You realize that by giving them everything you are not giving them that ability to learn how manage themselves and be an individual. Instead you are giving them everything they want. They are being dictated to the consumer market by people outside of their own moral value. They are not becoming an individual.

So how do we counter this?

The first part is the recognition of what really is the game that is being played. Every day you will start to notice it a little more. Every day you will notice that the ads you see are designed directly to influence your child and realize that "This isn't aimed at me at all. This is aimed at conning my child into becoming a consumer".

The second part of the problem is that we often lack that real understanding of our children. We don't look at our children as though they are mature in their own consciousness, yet they are often far more mature than we realize. We tend to talk down to them, to simplify things, rather than seeing just what they can understand. Some parents feel that they have to pretend to be smart with their child, and operate on a level above them. Unfortunately, when you are above your child, you can't be intimate with your child. You can't be real with your child. You can't sit down and say...

"Hey honey, I am not going to stop you from having an iPod, but I'd like you to know there is a game that is going on, there are companies out there who say all the right things to make you do all the things so eventually you are addicted to the things they sell."

We have to be real with our children. Explain that it is exactly the same as with their granddad with his smoking. He was told all those years ago that it was cool to smoke, and it was funky, and it was healthy, and it would make him a really strong man. Now, years later, we know that smoking will kill us. He was addicted from using tobacco for so long but she wanted him to give up because it was so bad for him. Explain that unfortunately it's the same as her love of sugar and coke and everything now.

Tell them the truth of what you see in the world. Help them develop a sense of identity that is more about who they are as a person, rather than who the current market wants them to be.

SECTION 4

Choosing a Dance School and Teacher

- What to look for in a dance school
- Are competitions important?
- Personality clashes
- Career choices

What to Look for In a Dance School

We have recently moved cities and we are currently looking at different dance schools for my 10 year old daughter. What things should I look for in a dance school

Parents often have to look for an alternative dance school for their child for many reasons, whether it is due to a change in physical location, for family reasons or to change the focus of their daughters dance training. What to look for in a dance school really does depend on what outcome your child wants from their dancing. If it is a fun afterschool activity to be done once or twice a week I would place emphasis on finding a school that is focused on performance, creativity and fun. If, however, your daughter is serious about ballet and wants to pursue it seriously, whether this is with view to a professional career or simply as a serious sport while she is studying, there are several other things that I would be looking for.

- **The focus of the studio:** Make time to go and observe classes in the ballet school that have students of the same or similar age as your child to observe the interaction of the children, to determine the feel of the studio. Some studios can have a very competitive atmosphere while others have a more supportive environment. The optimal situation for your daughter will obviously depend on her personality but observing a class can give you a good guide as to the interaction between other girls. If it is an appropriate time of year, it is a good idea to watch the end of year performances from several different schools and see which style your child likes. Whether it is a school that is focused solely on ballet or one that encompasses jazz, tap, hip-hop, and other styles of dance, watching the students perform may influence your decision.
- **The teaching styles used:** Take special note of the quality of performance of exercises by students within a class, and the teachers' involvement with the students.
 - Does the teacher sit back and simply observe the exercises?
 - Does she demonstrate correct and incorrect performance of the exercises if students are finding something difficult?
 - Does she try different wording of the same instructions or simply repeat herself if students are struggling?
 - Does the teacher yell at the students or speak to them calmly?
 - Do the students respect their teacher or roll their eyes when she is not looking?
 - What standard of dress do the students maintain? Are they neat and tidy in simple leotards and stockings with hair pulled back? Are they allowed to wear legwarmers, loose warm up gear and messy hair?
 - Do the students maintain a professional attitude between exercises, or slouch around and chat amongst themselves?

- **Other facilities:** Make note of facilities that different schools provide. Is there inclusion of any strict limber or Pilates based classes within the programme or is the studio is affiliated with any other businesses? Also look for the presence of any education programs that are offered, especially in the 13-15 year age group, that teach the importance of safe dance or anatomy education. This can be extremely beneficial to young dancer when she is beginning to learn about her body and will help to prevent and manage any future injuries as best as possible.
- **Age and experience of the directors and teachers:** It is also wise to take into account the age of the directors of the studio; obviously if your daughter is 10 years old she will have at least five to eight years within the school before moving on. It is helpful for her to have a wide range of teachers to access during this time and that she develops a good bond with each of them. Young teachers may have lots of energy and enthusiasm and creative drive, while older teachers have a huge wealth of experience in both teaching and preparing students for a professional career. It may be good to find out the professional experience of the teacher, whether their career in dance was long and successful or cut short by injury. Keep in mind that a phenomenal dancer is not always a phenomenal teacher, and many dancers who did not make it professionally themselves can help their students to achieve what they did not.
- **Hours of dancing involved.** Make note of the amount of hours that girls at the school do and ensure that these hours are appropriate for you and your daughter. Some schools push a high number of private lessons and encourage girls to be involved in many competition teams. This is a personal preference and some girls prefer to simply do regular ballet classes and sit their exams.
- **Financial Cost:** The financial cost of dance training must be considered. If a girl is constantly entered into competitions, there is the cost of extra lessons, costumes, travel and accommodation to be factored into the decision of which school to go with.
- **Track record of previous students:** Look at the history of students from the school entering professional schools and companies. Some schools have a well trodden path linking full time dance training to professional careers, while other will not.

Remember that none of these practices are right or wrong; they merely help you choose which studio is best for your daughter. If she is serious about a career in ballet, a more formal, disciplined and professional studio is obviously important, however, if she simply loves to perform, then a fun energetic studio with a focus on eisteddfod competitions or public performances may be more her style.

Are Competitions Important?

My daughter has recently started at a school where they do a lot of eisteddfod competitions. She never did this at her previous studio and I wonder how important this is in a career as a professional dancer.

Each school has a slightly different focus and some schools do place a lot of emphasis on competitions and eisteddfods. Performing frequently can help the young dancer enormously in learning how to prepare herself physically and psychologically for performing on stage and in developing strategies to manage performance anxiety. However, it may also involve significant financial expense with the combination of costumes, travel, and competition entry fees.



Performing regularly exposes the young dancer to the standard of girls of a similar age, and of the grades above them, which can be both; positive or negative. Girls who are used to being the best at their small studio may get a rude awakening that there are girls at other studios who are far more capable than themselves. Depending on the personality of the student, this may be taken on as a challenge to improve her own skills or as a devastating blow to her ego, resulting in feelings of incompetence or worthlessness. It is a difficult time between the ages of 11 and 15 with girls maturing at different rates, and rapid changes due to puberty often have an impact on technical skill. One girl who was amazing at 10 may suddenly lose her flexibility with a growth spurt and be devastated that the girls she used to beat are now out performing her.

Watching the older students perform can give girls a level to aspire to, especially if they have watched a particular dancer develop over several years. It is important for the girls to watch and appreciate performance skills such as conveying emotion as well the technical skills and acrobatic tricks which they often hang onto. It is also extremely important though, that students are learning the correct ways of doing particular steps, and do not include movements that are beyond their skill level at a certain age as this will rapidly increase their chance of injury.

The decision to participate in competitions is really a personal preference, and depends mainly on the personality of the young dancer. There are many dancers who are dancing and performing at a professional level that did not compete in such competitions extensively at a young age, and many that did. I do feel however, that as the girls get older it is good for them to enter various competitions to help gain experience and understanding of the demands performing under pressure on stage, as performing a solo piece in a competition is very different to performing in the dance schools end of year show. Care must be taken to ensure that the push for presentation and performance dramatization does not take of the place correct execution of technique in their dance training.

Personality Clashes

My daughter often comes home in tears from ballet complaining that her teacher is picking on her and never gives her any compliments. She loves dancing and does not want to quit, but this is obviously upsetting for both of us. What should I do?

In both regular schooling and/or her dancing there is a possibility that your daughter and her teacher will have a personality clash. This is a difficult, but all too common scenario, and there are several ways of dealing with such a situation. One, or several of these techniques, may help clear the air for all parties involved. Especially during adolescence emotions tend to run high, and it is important to deal with any conflict calmly and thoughtfully. It is very easy to jump to conclusions when the situation involves someone we love, but try and see the situation from all sides.



Work out what is actually going on: Sometimes, when we get emotional about a certain situation, we can embellish it in our minds. See if you can get your daughter to repeat *exactly* what the teacher has said to her, not what she *believes* the teacher meant. This will sometimes also help the student see if she is overreacting, or whether the teacher is actually being nasty in class. A lack of positive feedback is not the same as ‘picking on’ someone and she needs to be clear on exactly what is happening.

Talk to your daughter about her response: This is an ideal time for your daughter to learn that we can never change another person’s actions, but we can change our response to their actions. By continually getting upset, she is giving the teacher control over her own emotions. If she can stay calm in the same situations, she will develop strengths that are very useful in other areas of life.

Think of reasons why it may be happening: The teacher will have reasons for acting the way she does, whether due to the way she was trained herself, her personality, or her beliefs about teaching. Many dance teachers believe that the strict, stern, disciplinarian approach is the only way to train the precision, strength and technical ability needed to be a dancer, and this approach has worked for many years. Many teachers have set views of how things should and should not be done and often students and parents can find this hard to deal with. It is important to remember that the teacher has often had a professional dance career and knows intimately the trials and obstacles that are often put in a dancer’s way. While they may seem harsh at the time, occasionally techniques are used in class are designed to help strengthen the students for future careers in dance.

Help her realize that a lack of positive feedback does not mean that she is bad: In this age where we are taught positive parenting, young dancers are often used to getting copious praise for everything they do at home. The situation is often very different in a dance studio. Many teachers will make girls work hard for minimal praise, and this approach, if understood by the student, can make any positive comment, or even a slight nod of the head from the teacher, worth so much more than constant commendation.

Talk to her teacher or studio owner: Depending on the seriousness of the situation I would recommend approaching the teacher to voice your concerns. Once you have a clear idea of the situation from your daughter's point of view, organize a quiet time to sit down with the teacher to discuss the situation. This is often best done without the student present, so that the teacher is able to speak freely. Keep calm, and explain what your child is worried about, without accusation. Listen carefully to the teachers' response as there can often be surprising reasons why she is acting in a certain way. You may discover that your child constantly talks in class, or is in fact very talented, and the teacher is taking care not to isolate her too much from her peers. If the teacher is not willing to discuss the issue, I would approach the studio owner.

Change schools: If you have tried all of the above techniques, and you are not satisfied with the teachers' explanations or behavior, the final solution is to look at other dance schools. I don't feel that this should be used as a first response, as it does not uncover any of the other situations that may be present. It is important for your daughter to learn that she should not run from challenges, but that if it is really needed, it is okay to walk away.



Career Choices

My daughter is 14 years old and has been pushing both her father and I in the decision to go into full-time dancing next year. Is this a wise idea, and how will it affect her “employability” later on?

This is a very difficult question and the situation will vary enormously from student to student. I feel that some girls do go into full-time dance training far too readily as many of them will struggle to achieve a career as a dancer. It is a big decision to give up full time schooling for such an unstable career; however it is also important that students are encouraged to follow their dreams rather than feeling that they have to choose the ‘safe’ option. Far too few individuals in our society have any passion for their occupation, so if she simply must dance, then pursuing this path may be right for her. If a child is talented and dedicated and has an absolute passion for dance I would definitely support her in her quest.

Being a professional dancer is an extremely demanding occupation that is far more than just a job. A student must have a passion for dance, a love of exploring their body, and a fascination with how to constantly improve their skill level in all areas of movement and performance to gain any pleasure from it as a career. While it may appear glamorous from the outside, the life of a dancer is often fraught with challenges, rejections and frustrations not to mention being far from lucrative. Many people find it difficult to handle the stresses of the industry, so a strong sense of self and support from family members are crucial to their survival.

The dance world is an extremely competitive place and even dancers who have great technique and fantastic presentation may not make it as professional dancers. While some genera of dance are more forgiving, the physical requirements to get into a classical company can be largely determined by a dancer’s genetics. If she is too tall, too short, too heavy or has disproportionate features and limbs, the fact is that she may find it very hard to get employment. This is hard for any individual to accept, however it must be brought up with families if their daughter is not particularly suited for a career in ballet. This is by no means a reason to stop dancing, and there are some dancers who break the mould completely, however she must be aware that having a successful career may be difficult.

At the other extreme, getting paid to do what you love to do is an amazing position for anyone to be in. Dancers bring mystical worlds to life, bring joy and delight to thousands of people and inspire others to explore their bodies. They achieve a connection with their own body and soul that very few individuals will come close to and will explore the deepest reaches of their being in the name of art.



If a student is contemplating going full-time I would definitely recommend continuing with an academic correspondence course to keep her well educated in all the core subjects. She should research what level of schooling is needed to re-enter the education system if she would like any tertiary education in the future. If, for whatever reason, her dance career does not work out it is important that she has a high enough qualification to be able to study in her chosen area as an adult student.

Of course her physical development must also be taken into account, when considering an increase in hours and physical demand of dance lessons. Young bones may be permanently damaged by excessive training en pointe before the growth plates have stabilized enough, and during periods of growth, hip knee and back injuries are common. A study conducted by dance physiotherapists in Sydney, Australia, found that once a dance student below the age of 14 is involved in more than 10 hours of dance per week, her risk of injury to the feet and ankles increases significantly. Once over 14, the body can tolerate more training, provided optimal technique is maintained. There are many other ways to improve a student's strength and flexibility apart from her classes in the studio, and for the younger students who want to be doing more, I would suggest investing in supervised Pilates equipment sessions, private ballet lessons to perfect technique or limber and strengthening classes over extra group dance classes.



Unfortunately some teachers will take on full-time students despite a lack of potential for the student to have career in ballet in order to keep their student numbers high. This is extremely unfortunate, but as dance schools typically run on a very slim budget, it is a fact of life. If your daughter is serious about doing full-time classes at a particular school she should look at the career paths of previous students to see whether those students are anywhere near where she would ultimately like to be. I feel that not enough students look into the realities of a career in dance before they decide to go full time. This is a very important step to decide if they really want the life of a dancer.

Possible career choices for the serious dance student may include:

- Employment in a classical or contemporary company.
- Creation of or joining an independent modern dance company.
- Contract work for companies as an independent artist.
- Music video and MTV contracts.
- Cabaret style work, for example in 'The Moulin Rouge' or on cruise ships.
- Choreography for companies, schools or movies.
- Dance teaching.

SECTION 5

The Pre-Pointe Stage

The Pre-Pointe Stage

Starting 'en Pointe' is one of the biggest rites of passage a dance student goes through. It is the one thing that many young dancers focus on, as it is the stepping stone to move from being one of the 'littlies' in the ballet school, to being one of the "older girls". In any ballet performance girls will see on stage, usually all of the female leads will be en pointe, and as they make it look so effortless and graceful, all young dances aspire to be just like the beautiful women on stage. Despite the many years women have been dancing en pointe, there is still an air of mystery and a certain ethereal quality about a dancer being on her toes, especially in a ballet such as "Giselle". Pointe work is however, much harder than it looks, and can be quite dangerous for young girls if their feet are not strong enough, if they do not have the appropriate range of motion in the ankle, or if they lack the technical ability to control the rest of their body while dancing.

I get so many parents asking for my point of view (excuse the pun!) from a medical perspective, so have compiled a list of the most common questions that arise.

- Will pointe work destroy my daughter's feet?
- Shouldn't the teacher be teaching my daughter all of this?
- Does pointe work hurt?
- Does my daughter need a pre-pointe assessment?
- Do I need to get my daughters feet x-rayed before starting en pointe?
- One of the older girls at our studio was not allowed en pointe as she had an extra bone in her foot. Is this common?
- Does my daughter need to have her period to go en pointe?
- How much training should my daughter do before she goes en pointe?
- How old do dancers have to be to go en pointe?
- How do we know if my daughter is really ready for pointe work?
- My daughter has flat feet. Can she go en pointe?
- What can I do to help my daughter get ready for pointe faster?
- How can my daughter avoid foot injuries en pointe?
- My daughter wears orthotics in street shoes. Can she wear them in pointe shoes?
- We have a family history of bunions on my mother's side. Will pointe work make my daughter toes worse than they will be already?



Will pointe work destroy my daughter's feet?

Many of us have seen, heard or read the horror stories of girls starting en pointe too early and of the terrible consequences this has had on their feet. Some dancers have even had to end promising careers due to the pain and deformation that was caused. Many parents fear that pointe work will damage their daughters feet, a myth that is perpetuated by the outdated theory of “No Pain, No Gain” that is often still rife in dance circles. Fortunately, this no longer has to be the case, with the meshing of the art of dance and medical science giving us much clearer guidelines for training techniques and of when the transition onto pointe is appropriate.

This is what “Perfect Pointe” is all about. I have spent years perfecting training techniques and assessment tools to make the transition onto pointe as safe and as easy as possible, for students all over the globe. I wrote ‘The Perfect Pointe Book’ to teach girls how to strengthen their body, ankles and feet prior to pointe work, to guard against the risk of being put en pointe too early. I have also produced an assessment guide for contentious teachers to follow to ensure that all their students are indeed ready for pointe work. I feel that both of these resources are an essential part of their ballet training. Most of the pain and injury in dancers I see as a physical therapist traces back to a weakness in one of the basic areas outlined in the book.



In the past, many girls were put in pointe shoes at age 7 or 8 years of age, with little real strength in their feet, and at this young age the bones are very vulnerable to deformation. Even at 11 or 12 the bones can be still very immature and a child needs extremely good isolated control of their feet before they progress onto pointe to avoid injury. If put en pointe before they have trained specific muscles and obtaining the correct range in their feet, the delicate growth plates of the foot bones can be affected, the toes can change shape, and some do look terrible.

However, now that we know a lot more about exactly which muscles should be strong, and how to strengthen them, dancers’ feet are often stronger and safer than the majority of the general public. In addition, there are now hundreds of differently shaped shoes available, made by many different companies, to suit almost any foot. If a dancer has a shoe that works well with her foot she is far less likely to develop overuse issues related to pointe work. If a girl lives in a larger city, there will usually be a well-stocked dance store where she can get the shoes professionally fitted by an experienced staff member.

If a young dancer starts her pointe career on a sound scientific basis including the components of strength, flexibility, healthy nutrition and core control, she should progress through her training safely and gain all the benefits of the love of dance, without the pain.



Shouldn't the teacher be teaching her all of this?

Many teachers are frustrated at the lack of education they receive on how to progress girls onto pointe in their training, and part of the full "Perfect Pointe" program is an assessment process specifically designed for teachers to use within their studio to make sure that your daughter gets the most up to date care and training. There are constantly new developments in the world of Dance Medicine, and this is a way that they can stay abreast of the latest research.

Teachers obviously work on perfecting dance technique in class and will constantly give corrections to the students. However, unless a student's name is specifically used, some will often not take the correction on board. This results in the teacher getting frustrated at offering the same advice over and over again. Also, many teachers know exactly how a movement should look, but are rarely given the anatomical information to be able to work out exactly why a particular student may not be able to do what she is asking. In many cases, the positions needed to dance safely came naturally to the teacher, so she may not be aware of how to work with difficult feet and hips in a recreational student.

In addition, while in class, teachers are occupied with teaching syllabus work, dance quality and performance skills. They rarely have the time to sit down with each student individually to determine all of the specific areas a girl needs work on. Many teachers have found that by getting the girls to assess themselves and their friends using the tests and exercises in 'The Perfect Pointe Book', their attention to detail in class improves enormously. Girls work their feet more correctly, work more intelligently overall and are much more receptive to corrections. This then results in rapid improvements in the student's technique, helps her develop stronger feet and legs, and causes fewer traumas to the rest of her body.





Does pointe work hurt?

Many older dancers claim that it is part of the territory to have sore, blistered, bleeding feet when dancing en pointe. However, this is simply not necessary. If her feet and toes are strong, and they have well fitting shoes with a small amount of padding in the appropriate areas, your daughter's feet should stay in pretty good shape. I am so passionate about getting this realization out in the world, so that we can save so many young dancers from ruining their feet to become 'real dancers'.

That being said, pointe work is not like wearing slippers! The feet are held firmly in the shoes, and there may be a little discomfort initially, as the feet are held in a position that they are not used to. This however, should not be painful. If your child is experiencing real pain, she should consult her teacher to see if there is an issue with the fit of the shoe, inefficient padding strategies, a strength issue or a technique fault. Most often I find one (or more) of these four areas is the issue and most discomfort can be easily resolved.

One of the most common causes of blisters forming on the knuckles of dancer's toes en pointe is 'clawing' of the toes in the shoes. I feel that it is essential for girls to master maintaining the position of their toes correctly before starting en pointe to help prevent this common problem. If girls can keep their toes "long" when pointing, there is much less chance of the blisters developing, and therefore less pain!



Clawing



Toes Long

Around the time that girls progress onto pointe, they also usually increase their hours or training, and begin to learn a little more about their body. They should also begin to understand what 'good pain' is. There is a difference in the sensation of a muscle working strongly, "Post exercise muscle soreness" and the overloaded and painful feeling of an injury. Some students like to complain at the slightest bit of discomfort, while others will never complain despite the most intense pain. They should be encouraged to talk freely about what they are feeling in their body, and as a parent, do consult the teacher if you are concerned at one area always being 'sore'. Any persisting sharp pain, pain inside the foot, or radiating pain should be checked by a medical professional if at all possible.



Does my daughter need a pre-pointe assessment?

Many girls simply progress to toe shoes when they begin a certain grade of ballet, whether or not they are actually strong enough. Some teachers feel that the way to get strong enough for pointe work is to simply do it, yet this method can create many problems in young dancer's feet, as a result of using the wrong muscles.

The question; "When is the right time for beginning pointe training?" has always been a difficult one. Until now there has never been a definitive guide to this process, and many dance teachers worry at pushing girls too early, or leaving it too late. Most teachers have developed their own criteria for deciding when a girl is ready for pointe work, and many are wonderful at discerning just the right time to progress a girl in her training. However, I believe that there is a desperate need for a formal assessment that all girls undergo prior to starting en pointe.

I have created a workshop to introduce dance teachers to an advanced system of assessing and preparing a student for pointe training. Strict criteria will take the subjectivity out of the decision, and helps the conscientious teacher enable the transition of her students onto pointe in the most integrated and responsible manner. It explains many detailed assessment techniques and how these relate to specific prescriptive exercises. This also allows for tailoring of pre-pointe classes most effectively, for optimal strength and control in minimal time, and a reduced incidence of injuries. It also helps the less experienced teacher make an informed decision, especially in this age of increased litigation claims.



The tests help the girls understand what is required of them, and also helps tailor exercise programs that will be maximally beneficial. By going through the tests several times in class, students can work on areas of weakness prior to their assessment and also learn the focus and concentration needed to work safely en pointe.

I strongly recommend that your daughter be assessed, either by a medical professional used to dealing with dancers (physical therapist, orthopedic doctor or similar), or has a private session with her teacher/head of the school using this assessment to really determine how strong she is before progressing onto pointe. Many of these specific tests cannot be done in the course of a regular class so it is important that it is done in a one-on-one situation. It may take some time for your daughter to develop the strength to get safely onto her toes, however it will help guard against many of the common injuries that girls get en pointe, and she will progress much faster once she gets her pointe shoes.

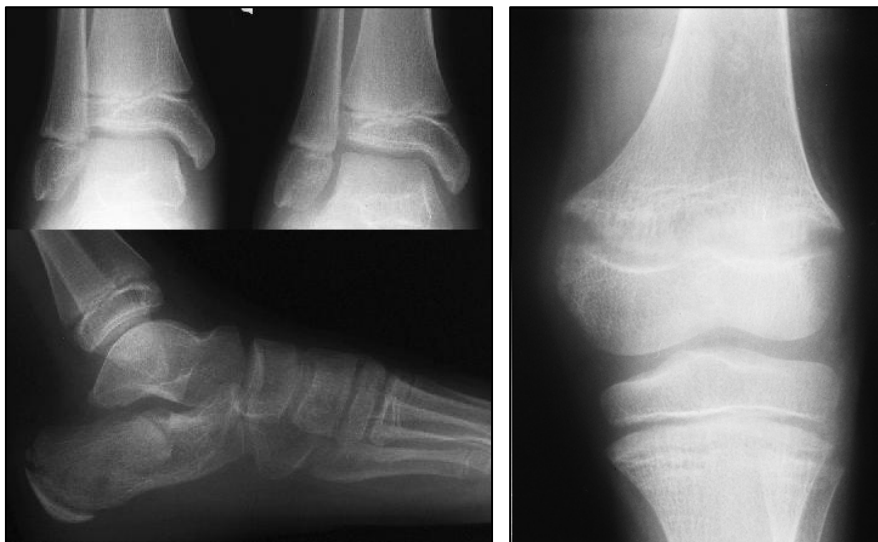


Do I need to get my daughters feet x-rayed before she goes en pointe?

Some people propose that girls should be x-rayed prior to going onto pointe to check that their growth plates in their feet have closed. I do not feel that this is necessary in all girls, and feel that it is more important that girls develop the appropriate strength before starting en pointe to avoid excessive strain across the developing bones. Knowing how to work their feet outside of a pointe shoe is imperative to being able to control them in one!

If a girl is serious about a career in dance, waiting until the bones completely ‘fuse’ at 16 - 18 years of age is unfortunately leaving it a little too late to ‘catch up’ to her counterparts who may have started en pointe years before their bones had a chance to develop. Many articles point to the more realistic guideline of waiting until the bones are 75% fused, typically at the age of 11 – 12. However, unfortunately, this stage of bony fusion occurs at a different age for every dancer. Some 11 year olds may be definitely developed enough to progress onto pointe; however some 13 year old dancers may still have very immature bone structure, and must wait until this develops a little more before progressing onto pointe.

These copies of x-rays demonstrate the open growth plates in several adolescent dancers.



In most cases, by the time a dancer has developed the strength to pass all of the requirements in the “Pre Pointe Screening Test” she will be aged at least 11 or 12 and have developed significantly in the rest of her body as well. However, in the young talented child who demonstrates excellent stability and control at a young age, or in the child who is older, but slower to physically develop, I would consider getting x-ray confirmation of the stage of development of the bones before progressing her onto pointe. ***This should only be done once all other areas needed to progress onto pointe have been achieved.*** It is much better to delay the progression for a few months than to risk damaging the delicate growth plates in the bones. If the dancer has good control of the feet while dancing, and only progresses when she is technically able, the bones will continue to develop naturally, given the appropriate nutrition and supportive shoes when not dancing.



One of the older girls at our studio was not allowed en pointe as she had an extra bone in her foot. Is this common?

One other time that I do get feet and ankles x-rayed prior to starting pointe is if the dancer has a restriction in their range of motion at the ankle (when pointing the toes) that does not improve despite diligent exercises and massage. Between the ages of 8 and 11 years of age a small bone may develop in the back of the ankle. In most cases, this fuses with the main ankle bone (the talus) and does not interfere with range of motion at the ankle. In some individuals however (described as between 1% and 25% in various studies) the bone remains separate, or is joined to the main bone by a small piece of cartilage. This bone is called an 'Os Trigonum' and can cause problems for a dancer.

In the x-ray on the right, there is a small growth of bone visible between the heel bone and the bones of the lower leg. This will prevent the dancer from pointing her foot to the required range. Many dancers actually dance with this bone present and never know that it is there. However, if there is a marked restriction in range that will prevent the girl from getting fully onto the box of her shoe, this needs to be dealt with before starting pointe. If the dancer is unable to achieve a good pointe range, she should not be progressed onto pointe as the tip of the shoe may slide out from underneath her, increasing her risk of injury. In some dancers who have an 'Os Trigonum' the area may get irritated when dancing en pointe, and any inflammation or pain at the back of the ankle should be dealt with as soon as possible.



Occasionally, if a child is very talented, is committed and determined to make dance her career and the only barrier she is working against is this restriction, it is possible to have the bone removed surgically; however this should not be done lightly. I would wait until the child is at least 15 to even consider this procedure, and would have worked diligently at correcting all other technique issues and foot strengthening before this.

Some girls may also have an "Accessory Navicular". This is an extra bone on the inner arch of the foot that may present as a small lump at the back of the arch. This can range between a tiny sliver of bone and a fully formed bone; however this is usually not a barrier to starting en pointe. Any unusual lumps or pains in the feet should be thoroughly assessed before a dancer progresses onto pointe.



Does my daughter need to have her periods to go en pointe?

Many dancers and other athletes may have delayed or irregular periods due to excessive amounts of exercise upsetting their energy balance, while some girls are just genetically slower to develop. Alternatively many girls who physically develop early may not have the strength, technique or control to manage with pointe work, while their slither friends may be much more prepared. Therefore, onset of menstruation is therefore not an appropriate guide to readiness for pointe.

However, monitoring menstruation regularity is important in a dancer as delayed or irregular periods may be an early sign of disordered eating, and a medical professional should be consulted if you are concerned at all. If the body is struggling to find enough energy, it begins to restrict the production of hormones, such as estrogen and progesterone, the hormones that control menstruation. If a girl has not started menstruating by age 15, I would definitely recommend a medical checkup. Menstruation is part of an important cycle of bony growth, and delayed or irregular periods can be associated with early osteoporosis. The Female Athlete Triad is a disorder characterized by the presence of disordered eating, amenorrhea (lack of periods) and reduced bone density, leading to osteoporosis. As the teenage years are the time when bone density is developing, it is essential that girls have an appropriate calcium intake and regular periods. I do not feel that young dancers should be put on ‘the pill’ to control their periods if this does not occur naturally. Doing this may prevent underlying issues from being resolved.



How much training should my daughter do before she goes en pointe?

Many parents and dancers e-mail me asking how long their daughter should be doing ballet before starting en pointe and whether she is doing enough classes. This is very hard for me to establish without further details about each student, and there is no one definitive answer. Some girls become strong enough within several years of starting of ballet whereas others will take much longer.



- As a general rule, pre-pointe preparation should include;
- At least 3 ballet classes a week for one year, after several less intense years of ballet training.
- At least one year of focused strengthening of the feet within and outside of class. This may be through a section at the beginning or end of class solely devoted to education and specific strengthening of the foot for pointe, or, a specific, additional class, in which girls learn all the exercises and advice needed for pointe.
- Participation in a regular home exercise program that takes into account the structure of the dancers own feet. This teaches her the discipline and attention needed to maintain healthy feet while dancing en pointe.
- Lessons on how to care for pointe shoes and how to sew the ribbons on.
- Sound tuition in all other areas of dance, with a focus on technique and control.
- Basic education about the risks of pointe work and how to care for her feet.
- Basic anatomy knowledge and injury prevention techniques.

Ideally, girls should undertake a special '*pre-pointe class*' the year before they are to go en pointe, focusing on strengthening all the areas needed. This gives time to develop the awareness and discipline needed to work correctly en pointe. Many girls are in such a rush to get en pointe and forget all the other areas that need work. There is really no use being able to be on your toes if you cannot do anything while you are there, therefore, many girls would be better to focus on improving other areas of technique (i.e. flexibility, pirouettes, arabesque etc) before commencing pointe work.

Obviously, if a girl has never done ballet, but begins classes at the age of 13 with a history of competitive Rhythmic Gymnastics, Tap, Jazz and Irish Dancing, she may well be stronger than a girl of the same age who has done one or two classes of ballet a week for several years. Also consider the difference between an 11 year old girl who has a body genetically predisposed for dance, who has been doing 3-4 ballet sessions per week for 2 years at a pre-professional school, compared to the recreational dance student that started ballet at a small local school when she was three, however has only been doing 1-2 classes per week and is now 14. These girls will all have very different bodies and may be at completely different stages in their training and preparation for pointe work.

Some girls will respond to the pre-pointe training described above very well, while some may require additional input. Some teachers prefer to look at the strength of each girl in a private lesson, in order to work out the areas that need strengthening in more detail than can be done in class. Other teachers prefer to send the girls to a specialized medical professional to guide the pre-pointe training, especially if there has been a prior injury. I feel that all girls need to know how to assess their own feet, and know how to strengthen specific areas as needed, as described in 'The Perfect Pointe Book'.

Teachers should never be pressured into putting girls on pointe earlier than when they are confident that the student will cope with the demands of the increased workload. 'The Perfect Pointe Teachers Manual' will help all teachers make this decision much more confidently than ever before by providing a sound template for assessing girls for pointe. It is much better for any dancer to delay going en pointe for several months, rather than risk damaging young feet forever.



How old do you have to be to go en pointe?



Readiness for commencing pointe work is not dependant on age or grade level. It is a combination of physical and technical maturity and specific strength and control in the foot and ankle. Despite girls at the same school doing the same amount of classes and being the same age, often some are ready before others. Whether this is due to genetically more mobile feet, stiff feet, or occasionally, a lack of attention to correct technical instruction in class, depend on the student! Girls may also be physically strong enough on testing, however if they fool around in class, the teacher may decide that they are not suitable for pointe until concentration can be maintained throughout a lesson.

In regard to bony maturity, this does depend on the child, and there is little formal research to validate most opinions. It is generally accepted that girls should be at least 11-12 before starting pointe work. At 12 (depending on the maturity of the child) the cartilaginous portions of the foot bones that are soft through childhood begin to harden, and there is less chance of disturbance of the growth plates and long term damage to the feet. However, this by no means suggests that all dancers who are 12 are ready for pointe! Bony union is just one of the many variables that must be taken into account before progressing onto pointe.

I applaud competitions, such as the Alana Haines Competition in New Zealand, that do not allow girls to compete in competitions before the age of 13. I have heard stories of girls in other countries competing at 7 or 8 en pointe and this, I feel, is devastating. Even if the child is exceptionally talented, focus should be made on solidifying technique and strength in all other areas, not to mention artistic ability, before going en pointe. If the child is able to do nothing more than totter around en pointe there is really no reason for her to be there.

Many syllabuses' such as the Intermediate Foundation level in the RAD syllabus requires a short amount of pointe work at the end of the formal examination. The minimum age for this examination is 11 and many girls sit it at this age. This means that they must have at least several months en pointe before the exam. It is important to note that this pointe work is very minimal, and should require just 10 – 15 minutes at the end of class three times a week to gain competency. I do not feel that girls of this age are able to sustain a full hour of pointe. Pointe classes may be given with a large proportion of the class devoted to specific foot exercises and strengthening performed in bare feet or flat ballet slippers, with just one short part of it actually en pointe.

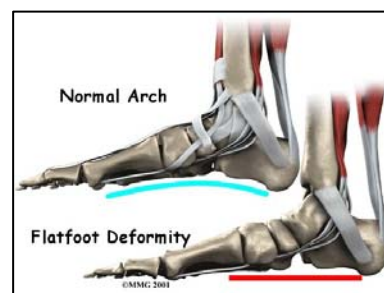


**My daughter has flat feet.
Can she go en pointe?**

The answer to this may be yes, or no. It really is a ‘that all depends’ scenario. This is due to the fact that there are basically two types of ‘flat feet’.

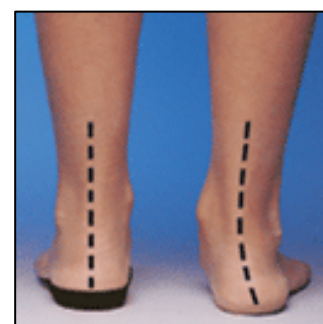
Each foot is made up of many bones, held together by strong ligaments and then supported by the small (intrinsic) muscles of the feet. They are further supported and influenced by the “extrinsic” foot muscles that have a muscle belly up in the calf, and tendons attaching into the feet and toes. The ability of a dancer to safely progress onto pointe depends on the combined support from all of these factors, rather than the exact shape of the foot.

Some dancers do have anatomically ‘flat feet’. This is usually genetically based, and often there are visible racial trends. Some girls will tend to have a flatter curve to their arch in standing due to the actual shape of the bones in their foot, and no matter how strong the small foot muscles get, the shape of the foot will not change significantly. If this is the case, pointe work is still possible, assuming all the other requirements for pointe are achieved. The foot will perhaps not have the optimal appearance en pointe that many companies desire; however, the dancer will be safe en pointe.



Other girls will have the appearance of a ‘flat foot’ due to the presence of very mobile ligaments and poor muscular support. This kind of mobile foot can be developed to look great en pointe when very strong; however a girl should not be allowed to progress onto pointe while the foot is so weak. This foot often looks reasonable (or even very good) in a demi-pointe position, however the arch often collapses as the dancer drops her heel. In this case specific strengthening of the arch and isolated control of the muscles supporting and controlling the toes is essential before commencing pointe work. This dancer usually has increased mobility in many other joints in her body, and may have problems in her knees or back due to increased movement and decreased stability in these joints.

To assess the true nature of any ‘flat foot’ takes skill and practice, and is ideally done by a trained medical professional. Instead of simply looking at the shape of the arch, it is important to take a look at the position of the heel bone, and the relative position of the other bones in the foot. The Achilles tendon should fall in a relatively straight line when viewed from behind, but may appear to have a significant curve at the level of the ankle, if the heel and the arch are rolling in. The dancer must be able to maintain a good position of the foot bones in standing in parallel and in turnout, en fondu (bending the knee) and with petit allegro (small jumps) to demonstrated adequate control of any shaped foot.





What can I do to help my daughter get ready for pointe faster?

Many parents are keen to help their girls out with their preparation for pointe work, but have little idea of how to actually go about this. The pressures on teenagers and pre-teens are many and varied no matter where you live. Students usually have several after school and in school commitments, and homework is often hard to squeeze in. Adding in the extra exercises that they will have to do to progress onto pointe can often get pushed into the background, despite their desire to excel at dance. Encouragement at home goes a long way in helping adherence to the program, and therefore in keeping her feet healthy.

- **Support her with her exercises:** Help her stick to a regular routine of developing strength in her feet, ankles, legs and hips by placing the worksheet from the appropriate stage of The Perfect Pointe Book on the refrigerator or on a notice board. Perhaps try to do the exercises with her – as everyone can benefit from these exercises! Even get Grandma to try the ‘Toe Swapping’ and ‘Doming’ exercises, as improved strength in these small muscles may also help prevent falls in the elderly.

- **Massage her feet and lower legs:** Whether you just have a little play, or actually do a short massage course, frequent massage of the feet and ankles can help immensely in improving range of movement in a dancers feet, as well as helping to prevent cramps and overuse injuries. Make sure that the favour is returned, either with a foot rub or a neck massage! I used to sit behind my father, with my legs in a “froggy” stretch. He massaged my feet while I worked on his neck. If he stopped, I stopped, making it perfectly timed and a great incentive for both parties! This is a lovely practice to get into, and is good for her general health as well as maintenance of the feet. Many Asian cultures have been using reflexology treatments to heal all kinds of internal disturbances for thousands of years.



- **Encourage her:** Notice how she is doing in class, or with her exercises, and let her know when you start to see the improvement. Often girls will work to please a parent more than their teacher, so use this to help her stay on track.
- **Don't nag:** If there is constant pressure from a parent to do a certain action, often girls of this age will rebel, even if it is working towards something that they really want to do. Encourage with positive reinforcement, however if your daughter does not want to do the exercises, accept this and move on with other things. When she is ready to go back to them, support her and help out as much as she wants you to.

- **Realize the impact of your interest level.** Even by downloading and reading this resource you are showing your daughter that you are interested in her passion, and care about her wellbeing. This has a huge impact on her belief and value of herself.
- **Ask her teacher to assess her progress:** Your daughters dance teacher should be able to give her guidelines of what she needs to focus on based on the assessments that she should undertake. Perhaps schedule a private lesson with the teacher so that they can go over all of the exercises she needs to be doing in detail, and make sure that she reassesses your daughter's progress at regular intervals.
- **Congratulate her on improvements.** If you notice any improvements, no matter how small, tell her. Knowing that her effort is making a difference, whether through feedback from her teacher, or from you, will increase her drive to do more of the same.
- **Make the time to watch her performances** and open classes possible. Dragging brothers along is optional, but if at all possible get to parent nights to show your support of her efforts



- **Get her involved in the process.** Perhaps work out jobs that she can do around the house to earn money to pay for all or part of “The Perfect Pointe Book.” If students know the value of the things that they get they often treasure them a lot more. (NB: This can also work well for pointe shoes!)
- **Help her with the exercises** in the beginning of each stage. An extra brain is always handy when learning new things.

Most of all, be pleased that your daughter is working towards a goal, and support her in whatever way you see fit. Whether she has any aspirations to be a professional dancer or not, learning how to set a goal, work towards it and see the fruits of her labors are valuable lessons in any adolescents' life.

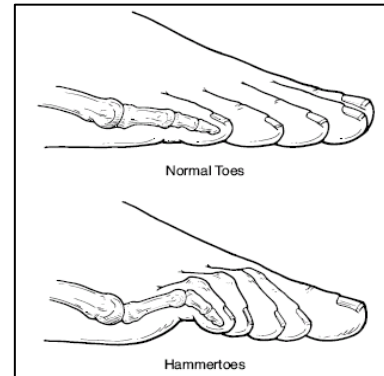
How can she avoid foot injuries en pointe?



Most dancers will complain of a foot injury at some time in their training, and some professional ballet dancers are plagued with chronic foot injuries, ranging from mild ones that are nursed for years, to severe injuries that may be career ending.

The truth is, that many common foot and ankle ‘injuries’ occur as a result of poor intrinsic foot muscle strength, and/or poor technique, and can be prevented. The intrinsic foot muscles are tiny little muscles that start and end within the foot, that help control the position of a ballet dancer’s arch, and are responsible for the control of her toes within the shoe en pointe. If these small muscles are not working effectively, larger muscles called the ‘extrinsic’ foot muscles that originate further up the leg become overused, as they attempt to perform two roles (stability and movement). This often leads to conditions such as ‘Anterior Compartment Syndrome’, ‘Stress Fractures’ of the shin bone (tibia), or ‘Medial Tibial Stress Syndrome’ all commonly known as ‘Shin Splints’.

Weakness in the intrinsic foot muscles and overuse of the extrinsic muscles will also result in the toes ‘clawing’ when in standing, rising, or en pointe. This is the biggest cause behind the nasty blisters on the toe knuckles that are often seen in photos of professional ballet dancers; however this does not have to be the case. Control of the intrinsic muscles allows the middle joint of the toes to remain straight when standing on one leg or while fully pointing the rest of the foot. This does not affect the look of the line of the foot, but does make dancing much more enjoyable as the foot is free of pain!



In many other sports, orthotic devices may be worn in the footwear required that will help stabilize the arch and settle symptoms related to poor intrinsic muscle strength. Unfortunately, in ballet slippers, this regular orthotics cannot be worn (although many have attempted this) so the dancer is often left to ‘live with’ symptoms, or have repeated extended breaks from dancing.

With correct strengthening combined with gentle stretching many of these ‘chronic’ injuries settle very quickly. ‘The Perfect Pointe Book’ is a comprehensive collection of many exercises designed to specifically strengthen the foot muscles needed in any ballet dancer. While initially designed to help girls strengthen their feet before going onto pointe, this book has become essential reading for any dancer, especially if they have had, or currently have any foot injuries. The exercises have been developed after years of working closely with ballet dancers, and seeing first-hand what is most effective in regaining control of these small muscles.

Often ballet teachers find the specifics of training the foot strength needed for pointe work difficult as it came naturally to them. However for many people, the isolated strength needed in the feet must be specifically trained, especially nowadays, as many children who grow up in cities spend little time bare foot on different surfaces, which naturally trains the tiny intrinsic muscles of the feet. Understanding how these muscles should work when dancing is imperative in a long, injury free career in dance.



**My daughter wears orthotics in her street shoes.
Can she wear them in pointe shoes?**

Many girls wear generic or prescriptive orthotic devices in their shoes to support the arch, prevent pronation (rolling in) or tilt the heel slightly. Regular orthotics are unfortunately not suitable for using in either ballet flats or in pointe shoes. However, I am looking at the potential to create a very fine heat moldable insole to be used inside pointe shoes for girls who do need some extra support.

Even if girls have not worn orthotics before, I often recommend they invest in a soft yet supportive flexible inner sole in their school shoes and running shoes. If they are doing more than 5 hours of dance a week in non supportive ballet slippers, it is healthy for the feet to have a little gentle support in their regular shoes. This is especially important in individuals with very mobile feet (hypermobile).

However, they must not become reliant on the innersoles! They are merely to provide feedback and gentle support of the arch to prevent straining of the ligaments. Before commencing pointe work, girls must be focusing on developing the strength needed to support and control their own foot, when bending the knees, rising and jumping. Good strength in the feet goes a long way in preventing the many injuries that are often associated with ballet, and especially in pointe work. The tests in 'The Perfect Pointe Book' will help highlight any specific areas to focus on.



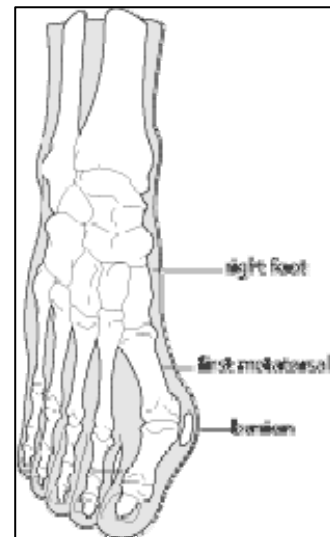


**We have a family history of bunions on my mother's side.
Will pointework make my daughter toes worse than
they will be already?**

Many girls who start on pointe are scared that they will get bunions from doing pointe work. Pointe work will not 'cause' bunions, however if you do have a family predisposition to bunions (especially on the maternal side) then wearing ill fitting shoes, whether they are street shoes or pointe shoes, may hasten their development.

People usually say that they have a 'bunion' if they start getting a lump out at the base of the big toe. A 'real' bunion is when the end part of the big toe begins to angle in towards the other toes, and the knuckle of the toe (head of the first metatarsal) drifts away from the second metatarsal. The protruding piece of bone thickens and often gets red and irritated. Sometimes it may even feel hot.

Several things are often present in the physical examination of a dancer with bunions, and these should be corrected before she starts en pointe. Young dancer's feet are very easy to influence, and by working diligently on the strength and control in her feet, she may actually prevent the bunions from forming as much as her mother's and grandmother's did.



- Often she has quite mobile feet but tends to overturn the feet in first and fifth positions.
- She may have good turnout range, but may not have the strength to use it in standing and when dancing.
- If this is the case, when she is standing the rolling in of the feet puts pressure on the inner edge of the big toe and this encourages its drift in towards the second toe.
- If she has good turnout range she often walks with the feet slightly turned out, and rolls off the inner edge of the big toe at the end of each step, rather than pushing off from the underneath part of it.
- The muscles that support her arch are usually too weak to support the foot, and especially the one under her big toe (Flexor Hallucis Brevis) is unable to assist the movement from demi to full pointe.
- There is often an isolated restriction in mobility between the top end of the first metatarsal and the mid foot bones (Cuneiforms).
- If there is reduced mobility of the big joint when attempting to go onto demi pointe this often results in either sickling in, or sickling out en demi-pointe.

- The metatarsal of the big toe is often rotated in, and angled out away from the second metatarsal.
- She may demonstrate poor pelvic stability, with the thigh, knee and foot rotating inwards with single knee bends in parallel.

Depending on how many of the above points are true for the dancer, she should commence a series of exercises based on turnout strength, arch control and control of the intrinsic muscles of the feet. Many exercises to target these areas are described in detail, with photos in 'The Perfect Pointe Book'.

The dancer with bunions often needs mobilization of the mid part of the foot to help realign the toe correctly, and then tape the toe and use padding in the shoe to keep the toe in alignment. There are various taping techniques that can be used to help the dancer with bunions, and I show several of these in the special injury report on bunions, available from my website.



Any padding should be in a donut configuration so as to distribute the pressure to the area around the bunion, rather than to increase the pressure on the already tender area. Create custom designed shapes by cutting pieces out of a simple foam rubber shoe inner sole that you can buy from the supermarket. They are cheap, comfy, and you can even get deodorizing ones. Cut a circle larger than the inflamed area, and then remove the center portion so that there is no increased pressure on the inflamed area. Adhere the padding onto the foot to keep it in place with thin hypoallergenic white tape so that it does not slide around when dancing.

Having a family history of developing bunions is not a barrier to commencing pointe work; however the dancer must take special care of her feet to avoid early development of this often painful condition. I recommend consulting a physical therapist who deals with feet on a regular basis for some guidance on the appropriate measure your daughter should take.

SECTION 6

Beginning Pointe Work

- Frequently asked questions (FAQ)

Beginning Pointe Work

Many parents are bewildered at the intriguing world of ballet, and are even more so as their daughter begins pointe work, especially if they have not been involved in dance themselves. As dancers' parents are usually the ones who foot the bill for new pointe shoes, it is important that they know a little about the shoes, and why such a specific fit is important. This is a guide to answer the most common questions that parents ask when their girls first start en pointe, but please contact me if there are any further questions that you have.

- “How is a pointe shoe made?”
- “How do you know which shoes to buy?”
- “How do you correctly fit pointe shoes?”
- “Should my daughter use padding in her pointe shoes?”
- “What does “breaking in” the shoes mean, and why do you have to do it?”
- “How do you break in the shoes properly?”
- “How do you sew on the ribbons?”
- “How long do pointe shoes last?”

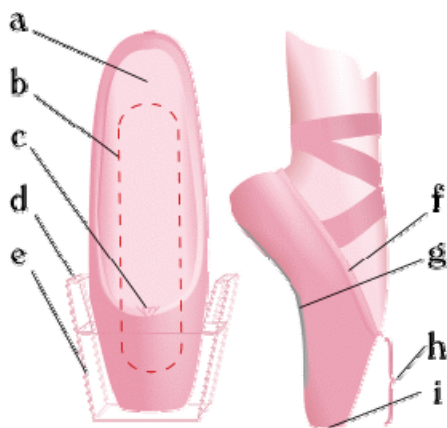


How Is A Pointe Shoe Made?

Pointe shoes are usually handmade (which explains their significant cost) and are traditionally made up of layers of canvas, paper, glue and satin, with leather and various types of board making up the sole. Each shoe may be slightly different so it is important to try on each pair before purchasing if at all possible. More recently some companies are beginning to use synthetic materials in an attempt to make the shoes last longer. Some girls prefer these shoes, while other dancers detest them. It is all a matter of personal opinion.

Despite popular belief, there is no block of wood in the tip of the shoe! The noise that you hear when a dancer is on a wooden stage is simply the hard glue that joins the layers of fabric together. The 'box' of the shoe is hollow, and the dancers' foot is supported in this, so her weight is not actually all on her toes. The tips of the toes should be just touching the end of the box when fully stretched, not curling up in the shoe as some may think.

Each part of the pointe shoe has a name. Try to familiarize yourself with the different parts of the shoe before you head to the store for the first time. That way you'll know what the fitter is talking about if she asks "Is that vamp too high?"



- a) inner sole / sock liner
- b) shank
- c) drawstring / drawstring knot
- d) wings
- e) box
- f) drawstring casing
- g) leather outer sole
- h) vamp
- i) platform



How do you know which pointe shoes to buy?

There are many different brands of pointe shoes and there is no one shoe that is fabulous for everyone. Different girls have different shaped feet, with some having very long toes while others may have narrow heels. Most brands make several different shapes and styles of pointe shoes, which are designed for different people and different uses. It is however extremely important to find a shoe that is suitable for your daughters foot. This may be quite hard the first few times as she will not be sure of what it should really feel like. As she works in several different pairs, she will learn what aspects of each she likes, and will often settle on one brand and style of shoe.



One way to find the shoe that is best for your daughter is to go to ***a store that has several makes of shoe*** to find the one that suits her foot the best. Once you find which brand suits her, a specialty store that stocks only that one brand will probably have more shoes around her size to get a great fit. Some dance teachers like all their girls to have the same brand; however the chances of all those feet needing the same shoe are pretty slim! ***It is better for each girl to find the shoe that fits them the best***, and then find ways to make the satins appear the same for performances. The strength of the shank is important, yet controversial. Some people like beginners to have a stronger shank to help support them en pointe until they get stronger, while others believe that the learner needs a softer, medium density shank to learn how to work through the shoe properly. I feel that the second option is usually the best, especially when a girl has strengthened her feet and ankles properly before starting pointe. Typically, when girls are beginning pointe work they are only doing a few minutes at the end of class, and so do not need a super strong shoe to last the rigors of a professional class. This is especially true if they do not have much body weight. A medium density shank will allow the shoe to be broken in enough to help them get onto pointe, and work the foot in the shoe, while still supporting the foot while en pointe. However, if you are an adult starting en pointe, then you may require a stronger shank to help support your weight. Breaking in the heel as I demonstrate later is essential to be able to work the foot correctly en pointe, yet will leave the bulk of the shank strong enough to help stabilize the foot.



How do you correctly fit pointe shoes?

Having pointe shoes that fit well can make all the difference in your daughter loving or hating pointe work, so it is important to get it right from the beginning. Ill fitting shoes can result in not only pain and discomfort while dancing, but also black toenails, blisters and even stress fractures in the toes. As there are so many different types of pointe shoes this is often very confusing for first time buyers, so if at all possible get her dance teacher, or an experienced dancer to go along to the fitting with you. The fitters in various stores can range from exceptional to very average, so it is a good idea to get a name of a good fitter on the recommendation of someone you trust.

While the person who fits the shoes should check all of the following things, it is good for the dancer to know what to look and feel for. The fitter can look at how the shoe looks from the outside, but only the student can feel what is going on inside the shoe. If your daughter's teacher is unable to go to the fitting with you, always check the fit of the shoes with them with them before you sew on the ribbons, break in the shoe or let your daughter dance in them. If the shoes get dirty by wearing them around the house, they may not be able to be returned to the store, and it can become a very expensive exercise. She should always try the shoe on with any padding or 'Ouch Pouches' that you will wear while dancing, and check the shoe in each of the following positions.

1 Check the fit of the box:

The foot should fit snugly in standing; with the toes not too squashed in (They should be able to lie flat). There should be no bulging of the skin over the top edge of the shoe in standing. The top of the box should sit against the skin of the top of the foot. You should be able to just slide the first section of your finger inside the shoe. If the box is too high for a flat foot, there will be more space here. You can flatten the box slightly, but this will also alter the width.



2 Look at the length of the wings:

The wings should come up to the side of the big toe joint. If they are too short, the box will pull the big toe in on an angle and may cause a bunion to form. If they are too long, it may be hard to work properly through the demi-pointe.



- 3 Check the position of the heel of the shoe:**
The satin of the heel should come 7/8 of the way up the heel bone. Too high, and the student may get problems with the attachment of the Achilles tendon attachment. Too low, and she will get frustrated with the heel of the shoe popping off when she tries to rise.



- 4 Watch the length of the vamp:**
This is the depth of the front of the shoe. If the vamp is too long she will not be able to rise through the demi-pointe effectively. If it is too short for long toes however, she will feel like she is falling out of the front of the shoe.



- 5 Plié in first and seconde position:**
When performing a plié the foot is at its longest and widest, so it is important to check that there is enough room in the shoe for the foot while dancing. The toes should stay long in the shoe, and only just touch the end of the shoe at the depth of the plié. If she has very short toes, she may need to pad up inside the box of the shoe to get a nice line of the shoe, and a correctly fitting box.



6 Placed en pointe:

It is important to check the fit of the shoe in an upright position before putting any weight on it. Place the tip of one shoe on the floor, with the other foot flat on the floor. Press down slightly to check the fit of the box. The foot should be supported in the box, and not sink down too much. Check the amount of satin at the back of the heel. If the shoe is too wide, there will be more satin. If the top of the foot is bulging out, or the shank is twisting, the box is too small. Make sure that both the big and little toe knuckle joints are supported by the wings. If they are too short the top of the wings will cut in and give an unsightly line to the toe of the shoe and may increase the likelihood of blisters.



7 The length of the shank:

Check the length of the shank by peeling the satin of the shoe off the heel and folding it back under the shoe. Place the foot back en pointe, and check where the sole finishes. The end of the sole/shank should be just short of the end of the heel. If the shoe is too long there may be bagging of the satin at the back of the shoe, as the satin is cut to cup the heel. If the shank is too short however, the foot will tend to wobble more, and the satin will pull too low. This results in the back of the shoe often popping off when rising from demi to full pointe and can be very annoying.



8 Weight-bearing en pointe

Have her hold onto the back of a stable chair or bench, and place one foot en pointe and then bring the other foot up. Make sure the toes are pointed long in the shoe and that there are no areas of severe pressure on any toe. Look to see that shank is not twisting. If it is, check the alignment of the foot and the width of the box again. Mild twisting may be remedied by breaking in the shank correctly.





“Should my daughter use padding in her pointe shoes?”

The battle continues to wage on what is the best type of padding, if any, to use in pointe shoes. Many dancers use nothing at all, and believe that this helps strengthen their feet, and thicken the skin, however this process can be extremely painful.

Especially with beginners, I like to use a fine layer of gel padding, encased in fabric to cushion the tops of their toes from the undersurface of the box. If pointe work is painful, she will not feel relaxed about it, and this will show in any performance. If your daughters teacher is opposed to using a product such as the ‘ouch pouches’ she can shape a piece of foam rubber from a basic shoe inner sole (available from the supermarket for a few dollars) to fit inside the shoe, over her toes, to cushion the top surfaces of the toes. This allows the toes to be free in the shoe, allowing more ‘feel’ for the more experienced dancer.

Traditionally many dancers used lamb’s wool or similar fleece to cushion the toes. Natural fibers are always good, due to their absorbent qualities, however many other products can be used. Options include:

Jelly tubes for individual toes.

Small strips of a thin dishcloth wrapped around each toe.

Medical tape.

Cloth band-aids.

Silicon gel pads of various descriptions.

Dancers who do not like to use padding use various products to help harden and thicken the skin on the toes to prevent blisters. Methylated spirits, alum and various other liquids may help protect her skin; however the best insurance against blisters is to keep the toes long in the shoes. This is achieved by strengthening the small intrinsic muscles of the feet, as described in ‘The Perfect Pointe Book’.





Why do you need to break in the shoes?

Obviously, after paying for beautiful new pointe shoes, parents are often dismayed to hear talk of "breaking in" the shoes. This is actually a very important step, and if done correctly will even extend the life of the shoe. If done incorrectly however, it can drastically shorten the life of the shoe, so it must be done with caution.

Initially the shank (supportive sole of the shoe) is reasonably hard. If the shoe is worn like this, without prior softening, it will tend to break in the middle of the arch, where it is under most stress. Once this happens the shoe is usually labeled "dead", and may be pulled apart (or "broken down") to make demi-pointe shoes. However, if the shoe is pre-weakened further back towards the heel initially, it will continue to weaken at this point when worn, preserving the rest of the shank. It also gives a much nicer line to the foot, and offers much more support.

When your daughter is ready for pointe shoes, make sure you watch the free video I created to show you both how to do this on www.youtube.com by searching for "Lisa Howell" or "breaking in pointe shoes".



Some dancers also like to soften various other parts of the shoe, and most dancers develop quite a ritual as to how they like their shoes prepared for wearing. Some repeatedly tap the tip of the box to soften the glue to make it quieter (especially for romantic ballets). Some need to massage the box to make it softer in certain areas to accommodate a larger pinkie toe or bunion. Girls will learn these tricks through years of working in pointe shoes, however usually this is not necessary when she first starts en pointe. She should avoid some of the more drastic techniques often shown in dance movies such as slashing the shoes with a knife or slamming them in a door, as this can destroy the shoe very quickly. She may also like to wear the shoes, with socks over the top and gently walk in them at home to soften the glue with her body heat, to allow the box to conform to the toe. Working the foot correctly, in simple barre work, without going up onto her toes, is one of the best ways to soften in the shoes in all the right areas, and strengthen her feet at the same time.



How do you sew on the ribbons?

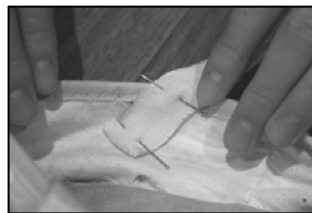
Having the ribbons pulling up at the right angle is very important in keeping the satin of the shoe snug around your heel. Many girls have all kinds of elastic contraptions to hold the heel of the shoe on. However, this is not usually necessary. Many of the issues with their shoe can be solved by simply adjusting their ribbons, or by choosing a slightly different shoe. Make sure you use high quality ribbon. The cheaper ribbons do not have as much give and can 'strangle' the ankle a little en fondu! Some girls like to use ribbons that have a small piece of elastic in the part of the ribbon that crosses the Achilles tendon. This can be helpful if you have had problems with the Achilles, or with your ribbons cutting in. You do need to make sure that the elastic is at the back of the ankle though!



Fold the back of the shoe in, where the back of your heel would sit.



Use the angle of the fold to guide where the ribbon will be placed.



Place the back edge of the ribbon along the fold (on the inside of the shoe) and pin in place (make sure the good side of the ribbon is facing out!).

Check the position by putting the shoe on (be careful of the pins!). Place the foot flat and then en pointe and test the position by pulling the ribbons to check that the satin is held flat.

Take the shoe off again and sew the ribbons on carefully, around all four sides of the end of the ribbon with tiny stitches.

Take care not to sew through the casing for the draw-string as she will not be able to adjust the tension again!! However, make sure you do a row of tiny stitches to hold the top of the casing against the ribbon to keep it in close to the foot.

Make sure you do not go all the way through the satin, but just catch a few threads of the canvas inside the shoe. You should not be able to see the stitches from the outside of the shoe.

Test the stability of the stitching by pulling the ribbons firmly in several directions. It is better to find any weak stitches at this stage, rather than when en pointe!



Put the shoes on and tie the ribbons neatly. Tuck in the ends on the inside of the ankle. Test the stability and placement of the ribbons by working through the demi pointe, and onto full pointe several times

Remember, this is a guide for attaching the ribbons when you first start pointe work. Each dancer has a certain angle they like to use so you may need to try several slightly different angles until the satin is held snugly at the heel.



How long do pointe shoes last?

The ‘life’ of a shoe varies from dancer to dancer, and at various stages in her career. While a beginner may use one pair of shoes for six months, a professional dancer may go through a new pair each performance! Often girls grow out of their first few pairs before they wear them out, as they are not as strong through the feet, and are doing just a small amount of pointe work in each lesson.

As she gets stronger, and older, and can cope with more work en pointe she may start going through pairs of shoes faster than you would like. This can get very expensive, so I have put together a few tips to help extend the life of her pointe shoes.

- **Get her to help pay for the shoes:** At \$50 - \$90 a pair, pointe shoes are not cheap, and it can become an expensive exercise. By getting your daughter to foot half the bill of each new pair of shoes she will tend to appreciate them more, and take care of them a little better. She can earn the money via jobs around home or externally, and will learn just how much a dollar is worth.
- **Remove all padding after class:** Girls must take the padding that they use in the shoes out immediately after class, to avoid early softening of the box. Sweat in the padding will soften the glue that strengthens the front of the shoe, and this will collapse prematurely.
- **Hang the shoes up to air out:** Find a warm, dry area of the house where she can hang her shoes up to dry out thoroughly between each class. If they are left in her ballet bag, they will soften very quickly (not to mention getting a bit smelly!).
- **Have two or three pairs of shoes at once:** While it may seem excessive, shoes actually last longer if not worn as frequently. Especially if a girl is dancing every day, wearing shoes on alternate days will help get more wear out of each one. This also prevents any drama of suddenly having no shoes for a performance if one “breaks” prematurely.



References

- 1 Jacobsen MF. Liquid Candy – How Soft Drinks Are Harming Americas Health. Center for Science in the Public Interest. 2005
<http://www.cspinet.org/liquidcandy>
- 2 Barger-Lux MJ, Heaney RP. *Caffeine and the calcium economy revisited*. Osteoporosis Int. 1995;5:97-102
- 3 Men stuff. Diet Cola's Downside. That Sweet Taste. Are Artificial Sweeteners Safe?
<http://www.menstuff.org/issues/byissue/dietsoda.html>
- 4 Hickman. M. Caution: Some soft drinks may seriously harm your health.
Expert links additive to cell damage. Consumer Affairs Correspondent. Independent News and Media Limited. 2007.
- 5 Mercola, Dr. Joseph. *Aspartame: What You Don't Know Can Hurt You*. Total health Program. 2007.
http://www.mercola.com/article/aspartame/weight_gain_myth.htm
- 6 Association of Women's Health. *Caffeine and Women's Health*. International Food Information Council. August 2006.
<http://www.ific.org/publications/brochures/caffwomenbroch.cfm>
- 7 Heaney, RP. *Effects of Caffeine on Bone and the Calcium Economy*. Food Chem. Toxicology, Creighton University. 2002 Sp;40(9):1263-70
http://www.ncbi.nlm.nih.gov/sites/entrez?cmd=Retrieve&db=PubMed&list_uids=12204390&dopt=Abstract&holding=f1000%2Cf1000m%2Cisrctn
- 8 Romero, M.A. Rodriguez *et al*. *Natural Food-Fruit Vitamin C Content*. Journal of Chromatographic Science, Vol 30, 1992 pg.433-437
http://www.naturalhub.com/natural_food_guide_fruit_vitamin_c.htm
- 9 Office of Dietary Supplements. *Vitamin E*. NIH Clinical Center.
<http://ods.od.nih.gov/factsheets/vitamine.asp>
- 10 Brandon, Raphael. Diet & Injury Prevention: How What You Eat Can Stop You Getting Hurt. Sports Injury Bulletin. 2007.
<http://www.sportsinjurybulletin.com/archive/diet-nutrition-injury.html>
- 11 Burke, L.M. and Hawley, J.A. *Carbohydrate Intake Targets for Athletes*. Peak Performance: Training and Nutritional Strategies for Sport. 1998.
<http://www.sportsci.org/news/compeat/grams.html>
- 12 Burke, L.M. *Carbohydrate Depletion – Is It For You?* Australian Institute of Sport. 1998. <http://www.sportsci.org/news/compeat/deplete.html>
- 13 Burke, L.M. *Should Athletes Nibble or Gorge?* Australian Institute of Sport. 1997.
<http://www.sportsci.org/news/compeat/comp1.html>

- 14 AIS Sports Nutrition. *Gymnastics*. Australian Institute of Sport, Department of Sports Nutrition, AIS. 2004.
www.ais.org.au/nutrion
- 15 Clarkson, P. *Nutrition Fact Sheet: Fueling the Dancer*. International Association for Dance Medicine and Science (IADMS). 2003-2005
<http://www.iadms.org/displaycommon.cfm?an=1&subarticlebr=2>
- 16 Vogel, D. *Bare-bone Facts about Bone Health*. Dance Teacher Magazine. 2007.
<http://www.dance-teacher.com/backissues/march04/dhds.shtml>
- 17 DanceHelp.com. *Low Carb Diet: Good for Dancers?* 2007.
<http://www.dancehelp.com/articles/nutrion/dancer-body-diet.aspx>
- 18 DCDoctor.com. *How Can A Dancer Maintain Or Lose Weight While Still Getting Enough Energy To Perform?* Diet and Dancers. 2007.
http://www.dcdoctor.com/dc/ca/backnaction_com/rightpages/dancemed_dietanddancer
- 19 Chernus, A. MS,RD,CDN. *Healthy Choices on the Run*. Pointe Magazine. July 2003.
<http://www.pointemagazine.com/backissues/july03/nutrines.shtml>
- 20 Dance Today! Getting Through the Day: A Dancers Guide to Eating On the Move. Dancing Times. 2004.
<http://www.dancing-times.co.uk/dancetoday200403-04.html>
- 21 Sears, Dr. J., B., B. *Family Nutrition: The Top Twelve Family Foods*. AskDrSears.com.
<http://www.askdrsears.com/html/4/T045200.asp>
- 22 Wikipedia. *B Vitamins*. Wikipedia Foundation. 2007.
http://en.wikipedia.org/wiki/B_vitamins
- 23 Deakin University. *Food – A Source of Pleasure and Pain*. Deacon University CRICOS. 2007. <http://deakin.edu.au/studentlife/councelling/beempowered/food.php>
- 24 Walsh, S. *Essential Fatty Acids*. Vegan Society. 2003.
http://www.vegansociety.com/html/food/nutrion/e_fatty_acids.php
- 25 Natenshon, A. H. *Disordered Eating – Time For A Wake-Up Call*. Empowered Parents. Jossey-Bass, 1999.
http://empoweredparents.com/1dianosis/diagnosis_02.htm
- 26 Human Kinetics. *Young Women – Fitness for Women*. HK Education Center. 2007.
http://www.hkeducationcenter.com/courses/OEC_Previews/hf-ft303_preview/
- 27 Collins, A. *Vegetarian Diet Guidelines – Tips for a Healthy Non-Fattening Vegetarian Diet*. Anne Collins Weight Loss Programme. 2007.
<http://annecollins.com/vegetarian-diet.htm>
- 28 Kose, O. Okan, A.N. Durabasa, M.O. Emrem, K. Islam. N.C. *Fracture of the Os Trigonum: A Case Report*. Journal of Orthopedic Surgery. 2006.
http://findarticles.com/p/articles/mi_qa3794/is_200612/ai_n17197677
- 29 McGregor. W. *Natural Complex Carbohydrates Food List*.
<http://www.weightlossforall.com/complex-carbs.htm>

- 30 Cleveland Clinic. Ballet: Ideal Body Type, Injury Treatment and Prevention. The Cleveland Clinic Foundation. 1995.
<http://www.clevelandclinic.org/health/health-in>
- 31 Stretanski, Michael F. DO; Weber, G.J. *Medical and Rehabilitation Issues in Classical Ballet*. American Journal of Physical Medicine & Rehabilitation. May 2002.
<http://www.amjphysmedrehab.com/pt/re/ajpmr>
- 32 Hugel, F. Cadopi, M. Kohler, F. Perrin, P. *Postural Control of Ballet Dancers: A Specific use of Visual Input for Artists*. International Journal of Sports Medicine. 1999 Feb;20(2):86-92. <http://www.ncbi.nlm.nih.gov/sites/entrez?cm>
- 33 Marotta, Joseph J. Micheli, Lyle J. *Os Trigonum Impingement in Dancers*. The American Journal of Sports Medicine. 1992.
<http://ajs.sagepub.com/cgi/content/abstract/20>
- 34 Weiss, David S. “*When Can I Start Pointe Work?*” Department of Orthopedic Surgery New York University School of Medicine. 2005.
www.med.nyu.edu/people/D.Weiss.html , www.orthodoc.aaos.org/davidweiss
- 35 Caselli, Mark. *How to Identify and Treat Common Ballet Injuries*. Podiatry Today. 2007. <http://www.podiatrytoday.com/article/1403>

(Ref: Australian Institute of Sport Guidelines. <http://www.ais.org.au/nutrition>)

http://www.pbs.org/wgbh/nova/thin/program_t.html

<http://www.femaleathletetriad.org/faq.html>

