



<u>Nutritional Safety</u> <u>Reference Guide</u> <u>And</u> <u>Workout Plan</u>

Section 1: Nutrition

In Summary

Nutrition is often the most forgotten component of training.

Coaches need to address the topic of nutrition and training because it is a key ingredient in maximizing performance of the athlete.

There are so many myths and misconceptions circulating regarding weight loss and nutrition that it is hard to know fact from fiction.

Need to eat properly so the body maintains the energy it needs to maximize performance.

Research has demonstrated that athletes who chronically consume poor diets may sustain more injuries than their healthy eating counterparts and take longer to recover.

The keys to good nutrition are proper balance and consistency. A diet containing a variety of foods high in complex carbohydrates, moderate in protein, low in fat, and including plenty of water will contribute to improved fitness and safe, effective cheerleading performances.

You need about 40 different nutrients to stay healthy. These include water, vitamins, minerals, and the three energy containing nutrients: protein, carbohydrates and fat.

The majority of energy for all types of exercise is derived from carbohydrate and fat.

No single food or food group supplies all of the nutrients in the needed amounts. Your daily food categories are:

o fruits o milk, cheese, yogurt o whole grains, cereals, breads o vegetables o dry beans, peas, lentils, nuts o meats, poultry, fish, eggs

Carbohydrates

Eating plenty of carbohydrates increases the stored carbohydrate (glycogen) in the muscle and will help maintain the level of sugar (glucose) in the blood. Both muscle glycogen and blood glucose are critical fuels for cheerleaders.

Failure to consume adequate carbohydrate in the diet is likely to result in a general lack of energy, muscle fatigue, and an inability to think clearly. All of these can lead to injury.

Concentrate on foods high in complex carbohydrates (commonly known as starches). These are the best fuels for physical activity and brain energy. They also provide a wide variety of vitamins and minerals. Complex carbohydrates are:

o potatoes

o tortillas, pita bread

o cooked and ready to eat cereals

o vegetables

o spaghetti, macaroni, noodles, whole-grain breads, muffins, rolls

o rice, barley

o pancakes, waffles

o fruits

o dry beans and peas

Simple carbohydrates such as sugar and candy may provide calories but little else in the way of nutrients. Undercover names for sugar are corn syrup, fructose, dextrose, glucose, maltose, lactose, and sucrose.

Protein

Athletes need protein in their diet to use as a fuel of exercise and to help build muscles.

The average athlete requires approximately 1.2 - 1.6 grams everyday of protein per kilogram of body weight. To figure an athlete's weight in kilograms, simply take the body weight in pounds and divide it by 2.2. Example: 130 pounds is 59 kilograms which means you need 70.8 - 94.4 grams of protein.

Athletes trying to lose weight or avoid weight gain need to eat more protein to compensate for increased protein burning (during exercise) for energy. The maximum amount of protein required should not exceed 2.5 grams per kilogram of body weight.

If protein is eaten in excess, it is either burned for energy (inefficiently) or converted into fat.

<u>Fat</u>

Although we have come to think of fat as the enemy in our diets, it does serve multiple purposes within the body. Fat provides the body the largest storage of potential energy which serves as a cushion for the protection of vital organs and providing insulation from the thermal stress of cold environments.

Dietary fat serves as a carrier and a transport for fat soluble vitamins A, D, E and K.

For many athletes, a daily fat intake of 20% or less of total calories is ideal for optimal performance.

Avoid too much fat, especially saturated fat and cholesterol. Dietary fat is an essential nutrient and a major source of calories. If you eat too many fat calories, your body will store them more easily than calories from other nutrients. Saturated fat and cholesterol are found mainly in animal products, but it can also be found in coconut oil and shortening. To avoid eating too many of these fats, do the following:

o choose lean meats, trim off visible fat

o limit use of eggs and organ meats

o limit intake of butter, cream, shortening and coconut oil

o broil, bake or boil foods rather than fry

<u>Water</u>

Water lost through sweat evaporation can lead to dehydration and a decrease in performance.

An athlete can be dehydrated and not feel thirsty.

Everyone should drink 6-8 glasses of water per day and additional fluids before and after exercise.

Weight Loss

Weight loss is most successful when diet and exercise are combined.

Calorie loss must exceed calorie intake.

It takes an athlete to run 35 miles or eat 3500 fewer calories to lose one pound. It is best to accomplish this over the course of one week.

Most cheerleaders burn 250 calories a day in practice or games. So, eating 250 calories less per day combined with a 250 calorie deficit from exercise or training will result in a weight loss of 1 pound per week.

Weight Gain

Muscle can be gained through intense strength training several times each week coupled with the consumption of additional calories.

Athletes that sleep in and skip breakfast miss an opportunity to add extra calories to their diet.

Athletic and fit female cheerleaders should maintain a body fat percentage of 15% ~ 22%.

If a female cheerleader drops down to 12% body fat or below, she could become amenorrhoeic. This is the absence of 3 consecutive menstrual cycles or the absence of menses by the age of 16 which can produce serious and long-term side effects. These include decreased bone mass which can lead to stress fractures, osteoporosis, and ultimately a decrease in performance.

Section 2: Workout Plan

In Summary

This plan is a sport specific conditioning plan designed for the female competitive cheerleader. The purpose is to allow for proper training and fitness levels necessary to perform competitive cheerleading routines while aiding in the prevention of common injuries associated with cheerleading.

As with ANY fitness plan, athletes should not smoke, use alcohol or drugs of any kind including stimulants or performance aids. All athletes must have an annual physical and should always check with their doctor before starting any fitness regimen.

Objective

The primary objective is on physical and psychological "rejuvenation" with an emphasis on general conditioning. This phase should allow the athlete to rest overworked muscles, joints and tendons while also allowing them to maintain their overall fitness level and/or give newer athletes a firm foundation for what lies ahead.

Goals

1. Maintain Cardio Fitness by exercising a minimum of 4 times per week.

2. Maintain Core Muscle Fitness by exercising a minimum of 4 times per week.

3. Rehabilitate existing injuries or weaker injury prone areas.

4. Maintain flexibility by stretching EVERYDAY!

Important Note

These exercises do not require weights however an athlete who becomes used to these activities may find the moves are not intense enough without some form of resistance. In that case it is recommended the athlete use weights as long as they can still finish the repetitions required.

Suggestions

Increase the resistance (weight) after 3 weeks to increase the challenge.

Day 1 and Day 3 – Arms and Stomach

Activity	Repetitions	Sets	Description
Running	1 mile	1	Increase until running it under 10 minutes
Pushups	20	3	On toes, not knees and keep back straight
Pike Pushups	10	3	Raise hips up in the air to make an inverted "V" while performing a push up.
Handstand Pushups	10	3	Against a wall. Use spotter if necessary.
Arm Circles ~ Forward	100	1	Hit a "T" motion and use a very tiny and controlled motion to circle arms forward.
Arm Circles ~ Backwards	100	1	Hit a "T" motion and use a very tiny and controlled motion to circle arms backward.
Handstand Hold	1 minute	2	Against wall.
Hollow Hold	1 minute	2	Lie on back with arms extended overhead while "hollowing out" your body so abs are tight, feet and hands are not touching the floor. "Rock n Rolls" may be added (stay hollow roll).
Crunches	30	1	With legs crossed in the air and hands behind head, perform a set up only going half-way up. Use stomach muscles for the crunch and not hands behind head to lift body.
Crunches – Right/Left Oblique	30	1	With legs crossed in air and hands behind head, twist body bringing right elbow to knee then left elbow to knee. Use stomach muscles for crunch and not hands behind head to lift body. One right elbow touch and one left elbow touch equals 1 repetition. Bicycles 30 1 With legs bent in air and hands behind head, twist body bringing right elbow to knee then left elbow to knee while rotating legs like riding a bicycle. Use stomach muscles and not hands behind head. One right elbow touch and one left elbow touch equals 1 repetition.
Bicycles	30	1	With legs bent in air and hands behind head, twist body bringing right elbow to knee then left elbow to knee while rotating legs like riding a bicycle. Use stomach muscles and not hands behind head. One right elbow touch and one left elbow touch equals 1 repetition.

$\underline{Day\ 2\ and\ Day\ 4}-\underline{Legs\ and\ Back}$

<u>Activity</u>	Repetitions	Sets	Description
Running 1 mile 1	1 mile	1	Increase until running it under 10 minutes
Walking Lunges	20	3	Start feet together and then take a large step forward with right foot, bend both knees (careful not to let back knee hit floor) and then bring hind leg together with the front leg. Repeat with left. One right lunge and one left lunge equals 1 repetition. Hands in "T" position.
Squats	30	3	With feet shoulder width apart and toes forward bend pushing hips to the back as if you are sitting in a chair and them come up again squeezing your hamstrings and gluteus muscles.
Calf Raises	50	3	Hang heels off a step and slowly lift up and down. Keep ankles in line with knees and hips. Turn toes inward and outward to work a different section of the muscle.
Second Position	30	3	With feet wider than shoulders and toes facing outward perform a squat with hands in candlesticks.
Bird Hold	Hold 10 Pulse 10	5	Lie on stomach with arms in a "T" while arching your back. Only hips/lower abs touch the floor. Pulse arms back using very small movements. Works back and rear deltoid muscles.
Superman Hold	Hold 10 Pulse 10	5	Lie on stomach with arms stretched out in front of you. Only hips stay on the floor. Hold for 10 seconds and then pulse using small movements.
Wall Sits	1 minute	2	Lean up against a wall and pretend you are sitting in a chair.
Lever Up/Down with legs	10 Up 10 Down	5	Lie on back with hands by your side lift legs on a 10 count until they are pointing to ceiling. Lower back down using a 10 count.
Leg Kicks	20	3	Arms in "T" position and high kick right leg to the right 5 times and kick right leg to center 5 times then change to left leg and kick center 5 times and kick to left 5 times. Workout in flexibility if inner thighs by increasing height.