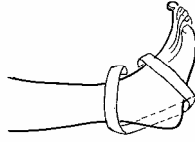
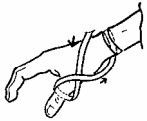




Elastoplast StrapSmart Workshop





Taping

- The aim of taping is to:
 - Prevent injury
 - Reduce the severity of injury
 - Provide support
 - Limit pain
 - limit specific movements at a joint
 - Allow desired movements at a joint





Taping

- Taping a joint to prevent injury should not replace a strengthening program as taping cannot provide the same range of movement restriction as an uninjured ligament.
- Taping that is applied incorrectly may aggravate an existing injury or cause a new injury.





Selection of Tape Size

- Narrower tape is better for smaller joints such as fingers and thumbs
- Larger widths are best for taping ankles
- The size of the athlete will influence the selection of tape size





Characteristics required of adhesive tape:

- The tape must maintain its adherence to the skin despite perspiration and activity
- The tape should contain as few skin irritants as possible
- The tape should be able to be removed without leaving a residue on the skin or pulling away the skin





Guidelines for Tape Application

- Preparation of the area:
 - Skin should be clean and dry with no dirt, oil or lotions
 - The area should be shaved at least 12 hour prior to taping
 - Apply padding to areas that require protection
 - If additional adherence is required apply a tape adherent
 - If the athlete is allergic to the adherent on the tape apply underwrap
 - Only apply tape when the area is at normal body temperature

Where possible tape directly onto the skin to obtain maximum support





Guidelines for Tape Application

- Taping:
 - Select appropriate sized tape
 - Place the joint in the appropriate position
 - If taping over a muscle allow for contraction and expansion of the area
 - Avoid continuous taping
 - Overlap the tape by at least half the width of the tape below
 - Tape from the roll whenever possible
 - When taping from the roll ensure tape is laid on and not tugged tightly





Guidelines for Tape Application

- Taping
 - Allow the tape to fit the contours of the area. Do not allow wrinkles or gaps
 - Start taping with an anchor piece. The anchor provides stabilisation of the following strips
 - Finish with a lock piece. The lock ensures the supporting strips will not peel away during activity





Guidelines for Tape Application

- Post Taping Checks:
 1. **Check for impaired circulation**
 - Lightly press the skin distal to the tape - normal colour should rapidly reappear
 2. **Check for impaired sensation**
 - Does the athlete have any pins and needles or numbness?
 - Can the athlete feel the area?
 - Is there any pain?
 - Does the tape feel too tight?
 3. **Check that the taping restricts the movements it was intended to restrict**
 - Get the athlete to move the joint through various movements ensuring the movement is limited in the desired directions





Guidelines for Tape Application

- When Removing Tape:
 - Use tape scissors that have a blunt nose or a tape cutter
 - Pull the tape back on itself and place pressure on the skin as close as possible to the line of the attachment with the tape
 - Do not wrench the tape from the skin

If an injury is present, avoid cutting the tape near the site of the injury to reduce the risk of aggravating the injury





Effectiveness of Taping in Prevention of Injury & Restricting Movement

- Many studies have been conducted
- Most studies have investigated taping to prevent and reduce the severity of ankle sprains, finding that taping does restrict range of movement
- The effectiveness of the tape in reducing range of movement decreases as the exercise duration increases
- The length of time it takes for tape to be ineffective in providing support is controversial





Taping the Thumb

1. Apply an anchor strip around the wrist
2. For extra support - apply strips of tape from the distal thumb anchor to the wrist anchor
3. Apply tape:
 - Beginning at the lateral side of the wrist, continue diagonally across the back of the hand aiming for the base of the thumb
 - Encircle the proximal phalanx of the thumb as close as possible to the base
 - Cross the back of the metacarpo-phalangeal joint forming a cross with the original diagonal strip





Taping the Thumb

4. Apply Tape (cont.)

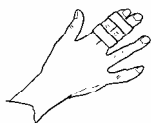
- Continue the tape diagonally across the soft pad of the muscle on the palm side of the base of the thumb
- Encircle the wrist for the final time





Buddy-Taping Fingers

1. Ensure fingers are clean and dry
2. Tape two adjacent fingers
3. Tape above and below injured joint
4. If buddy taping for a prolonged period pad between the fingers with a small piece of gauze





Ankle Taping

○ The Case Against:

- Tape is applied over movable skin
- Moisture collects under tape, increasing its looseness
- Constant taping for activity weakens supporting muscles and tendons
- Tape support is reduced by 40% after 10 minutes of vigorous activity
- Ankle wraps loosen 34-77% during exercise

Source: Arnheim, D.D., Modern Principles of Athlete Training, 6th ed, Mosby, 1985, p.124.





Ankle Taping

○ The Case Against:

- Taping often replaces the practice of thoroughly exercising the ankle joint
- The tradition of taping is based on folklore rather than on facts
- Taping gives the athlete false security and soon becomes a psychological crutch
- Because taping does not significantly reduce ankle torque, it does not decrease the athlete's potential for a lower leg injury

Source: Arnheim, D.D., Modern Principles of Athlete Training, 6th ed, Mosby, 1985, p.124.





Ankle Taping

○ The Case For:

- Wrapping or taping the ankle does not significantly hinder motor performance
- Properly applied wraps or tape, even though they loosen during activity, provide critical support at the limits of ankle movement
- Because wraps and tapes loosen in the initial period of activity, the mid-range of the ankle movement is allowed, thus moving adverse stress from the knee joint

Source: Arnheim, D.D., Modern Principles of Athlete Training, 6th ed, Mosby, 1985, p.124.





Ankle Taping

○ The Case For:

- High risk sports such as football, basketball and soccer, should use ankle prophylaxis
- Athletes having a history of recent ankle injury or chronically weak ankles should be given every possible protection against further injury
- Statistics show that athletes who wear tape as an ankle prophylaxis have fewer injuries
- Pressure of tape on the peroneus brevis muscle stimulates its action

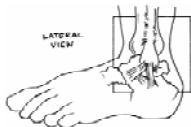
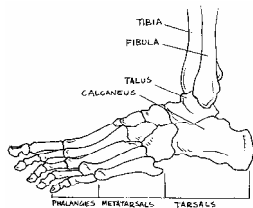
Source: Arnheim, D.D., Modern Principles of Athlete Training, 6th ed, Mosby, 1985, p.124.





The Ankle Joint

Ligaments of the Ankle Joint





Taping an Ankle Joint to Prevent an Inversion Injury

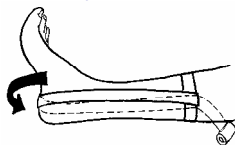
1. Ensure ankle and lower leg are clean and dry
2. Apply protective padding and cover any existing wounds
3. Apply 2 anchor strips around the base of the calf muscle





Taping an Ankle Joint to Prevent an Inversion Injury

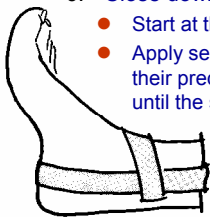
4. Apply 2-3 stirrups (depending on size of foot/ankle)
 - Begin at medial side and finish on the lateral side
 - Overlap second and third stirrups by half the width of the tape





Taping an Ankle Joint to Prevent an Inversion Injury

5. Apply a figure of 6
 - beginning on the medial side
6. Close down the stirrups
 - Start at the anchor and work down the leg
 - Apply separate strips of tape, overlapping their predecessor by half the width of the tape until the stirrups are covered
 - Finish at the malleoli





Taping an Ankle Joint to Prevent an Inversion Injury

7. Heel locks (2 complete sets)
 - Commence on the medial side of the ankle
 - Repeat from the lateral side of the ankle
8. Closing down
 - Lay a piece of tape gently around the mid foot covering the extreme edges of the heel locks
9. Check
 - Circulation/sensation
 - Movement
 - Restriction

