

ACUTE INJURY TREATMENT

5 easy steps to take to ensure proper management of **Acute Injuries**:

PRRICE PRINCIPLE:

- 1. Protect** the injured area from further injury. This includes removing the player from the game and supporting the injured area with a sling, tensor, crutches, splint or tape.
- 2. Rest & Refer** Avoid using the injured area for the first 24-72 hours. This will allow the body's healing process to work more efficiently. If there is any deformity, unrelenting pain, deep ache, foul odor, redness or altered sensation that develops; **Go to the emergency room for evaluation immediately.** If you are ever in doubt about the injury, **Refer** your athlete to be seen by their family physician prior to returning to play or work. Athletic Therapists or Physiotherapists may be utilized for further assessment, rehabilitation and bracing.
- 3. Ice** Apply ice pack to the injury for 15 minutes. Repeat every hour for 48 hours. Crushed ice, ice cubes or snow will do the trick. The best method is crushed ice with water in a plastic bag. Place a thin towel between the ice & the skin to protect from irritation. Always place an **injured muscle on a comfortable stretch** to allow muscle to heal in a lengthened position.
- 4. Compression** Apply direct compression to the area in the form of a tensor, tape, or bandaging. Be sure not to wrap the bandaging too tightly or to wear it overnight.
- 5. Elevate** the injured body part above the level of the heart and ensure the limb is positioned comfortably.

Arnheim's Principles of Athletic Training 13th Ed., 2009



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ICE APPLICATION

1. Why Ice?

- Reduces pain and muscle spasm
- Decreases metabolic rate in cells
- Increases vasoconstriction

Therefore it reduces the acute inflammatory response to an injury.

2. Ice Sensations: COLD \Rightarrow BURNING \Rightarrow ACHING \Rightarrow NUMBNESS

- Time it takes for the 4 sensation changes will vary for different types of tissue:
 - o Muscle is a good conductor (Fat is a good insulator)

3. The best type of ice is crushed ice and water in a bag.

- This solution is usually between $+1^{\circ}\text{C}$ and $+10^{\circ}\text{C}$ therefore it is safe to place directly on the skin
- Water is a great conductor and with the bag being moist it creates good surface contact for effective cooling

4. Extent to which tissue is cooled:

- Type of ice method (i.e., Crushed ice/whirlpool/ice massage)
- Length of exposure
- Conductivity of area (type of tissue, muscle vs. fat)

5. Amount of time (ice application) depends on:

- Method
- Size of Area
- Type of Area
- Depth of Target Tissue

6. Precautions

- Using a frozen gel pack directly on skin (place a thin, moist towel down first)
- Using any type of cryotherapy for longer than 30 min.
- Male Testes (not longer than 10 min)
- Children / Elders (poor circulation) – Always place ice over a thin towel
- Ice Allergy / Intolerance Conditions - Do Not ice in these cases
- Any area with compromised circulation
 - o Diabetes, some Post-op cases, Raynaud's Phenomenon...

ICE 15-20 minutes on, allow area to re-warm, re-apply...

Always place an injured muscle on a comfortable stretch to allow muscle to heal in a lengthened position. This helps SHORTEN recovery time.

Ask a therapist if you do not know the anatomy!!



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