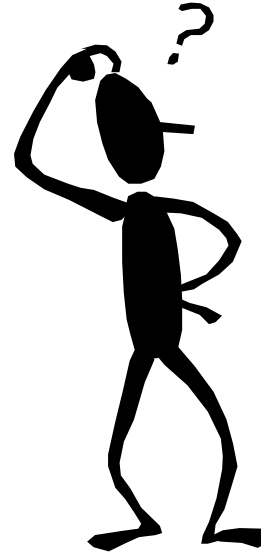


ICE OR HEAT

What
Is
the
Difference

???



THE QUESTION ...

- most of us have had to deal with injuries at one time or other - some serious, sprains and strains, and of course those nagging ongoing chronic aches and pains
- two types of treatments we've often used to deal with these common injuries are ice and heat
- almost everyone has used a hot bath to treat muscle aches or applied ice to a bruise or a sprained ankle
- few people, though, understand how heat or ice affects an injury, when to use it, and why

WHAT DOES IT DO?

HEAT

- increases circulation in the body part where it is applied
- relaxes muscles
- increases cellular activity
- favours tissue elasticity
- may alleviate pain

COLD

- decreases circulation to the area applied
- decreases the localized swelling/inflammation
- decreases cellular activity and muscle spasms
- alleviates pain
- may cause a temporary stiff feeling

WHAT ~ WHEN ~ WHY?

- it is very important to treat an injury as soon as possible after it occurs because inflammation sets in rapidly and can delay healing if its not brought under control

-
- in the ACUTE PHASE (early post-injury) of the injury, inflammation appears
 - it may persist between 48 hours to one week, and even longer depending on the severity of injury or if the area is continually aggravated and not rested
 - ICE is recommended, especially if there is significant pain, swelling, or bruising

ICE

** applied for 10-20 minutes every 1 to 2 hours

- decreases inflammation
 - reduces the risks of internal bleeding
 - decreases pain
 - decreases muscle spasms
- the application of heat is strongly contraindicated and should be avoided in the acute phase of the injury so as not to worsen inflammation, especially IF swelling or bruising

↓
NO HEAT

- in the later stage **CHRONIC PHASE** of the injury, the body will initiate repairs to damaged tissues
- acute inflammation will have disappeared but residual soreness/stiffness may remain
- the application of **HEAT** will then be helpful

HEAT

** applied for 10-20 minutes:

- will increase circulation to facilitates the repair of damaged tissues
- will favour tissue flexibility/extensibility
- will decrease pain
- will reduce feeling of stiffness

WARNING !

- the use of **HEAT** or **ICE** is a simple form of self treatment for many types of injuries/problems
- however, there are certain situations where usage should be avoided that are important to know about

BOTH ICE AND HEAT

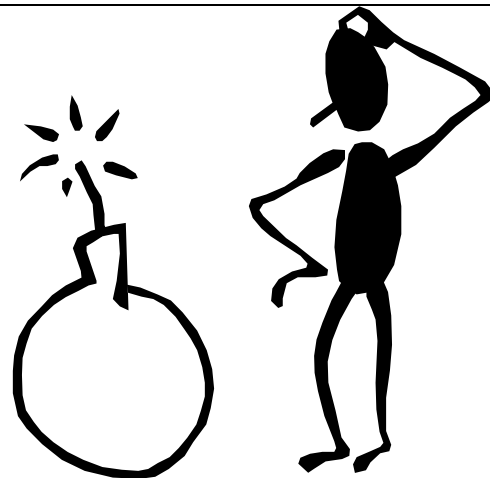
- severe circulatory conditions
- lack of sensation
- taking medication affecting the state of consciousness ~ danger of burns
- malignant cancer

ICE

- anemia
- Raynaud's Disease
- severe hypertension
- diabetes with circulatory complications
- allergy to ice

HEAT

- internal bleeding
- acute inflammatory stage
- infection, open wound
- skin disease
- allergy to heat



APPLICATIONS

ICE

1. cold wrap
 - frozen vegetables, crushed ice in a towel, gel pack strapped on with a tensor bandage
 - the initial sensation of burning and tingling with slight pain should go away in a few minutes
 - apply for 15 minutes every 1 to 2 hours
2. ice massage
 - ice cube or small paper or Styrofoam cup
 - this is useful when treating small localized areas of inflammation
 - massage ice in circular pattern for 10 minutes every 1 to 2 hours ~ keep it moving!
3. cold water immersion
 - apply for 15 minutes every 1 to 2 hours

HEAT

1. moist heat
 - hot bath or shower
 - hot water bottle
 - thermal gel or bead wrap
2. dry heat
 - heating pad or electric blanket (generally not thought to be as effective as it does not penetrate as deeply)
3. whirlpool
 - combines the benefits of moist heat and gentle agitation to contribute to pain relief and muscle relaxation
 - caution should be exercised with cardiovascular conditions

** duration is 15-20 minutes

CONCLUSION

- acute pain, swelling, discoloration → ICE
- along with rest, compression, and elevation of the injured area when applicable
- absolutely AVOID HEAT in acute stages of an injury - it can make things WORSE!
- watch for contraindications ~ if unsure, ask your physiotherapist
- if after a few days of treatment you have noticed minimal improvement, consult your physiotherapist
- remember, ice or heat is only part of the treatment for an injury ~ stretching, strengthening, joint mobilization & / or manipulation, education, and prevention are important components to accelerating and optimizing healing and avoiding re-injury

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