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SPINE & SPORTS: Stop icing your injury!

Ice has been used for decades as a treatment for pain, injury and booboos of all sorts. Ice bags, gel packs, coolant machines and other means of “cryotherapy” remain staple items in athletic training rooms, PT clinics and on the athletic field. In the 1980s, there was a notable trend of applying ice to all human ills. Despite our observation of failed outcomes with repeated, protracted ice application, the mindless, monkey-see monkey-do mantra of “apply ice!” has prevailed. Current research has shown that cryotherapy does not improve outcomes, and for acute injuries it can impair healing.

The physiology of tissue injury and repair has advanced in the past few decades, and it dawned on the clinical community to take heed that the body becomes inflamed for a reason. We wouldn’t have survived as a species without inflammation. However, there’s good and bad inflammation, the bad being the systemic inflammation that causes arteriosclerosis (another topic altogether), and the good being the localized inflammation which is essential to healing after injury.

A few minutes of massaging with a bag of ice cubes will reduce pain over an injured area. However, prolonged application of ice alters blood flow and disturbs the body’s chemical healing mechanisms. After injury, chemicals are released that signal different types of white blood cells to arrive at the scene. These cells direct traffic between other cells via chemical communication, they chew up debris and orchestrate the healing physiology. New capillaries are quickly built to enhance circulation and the stage is set for collagen formation to patch things up. Inflammatory chemistry is necessary to promote good healing.

Swelling is the pooled fluid around the inflamed area, which can be a concern. However, muscle contraction by moving the limb or by lightly exercising effectively pushes the fluid in the direction of the heart. Exercise is helpful and promotes healthy resolve of an inflamed area. Ice might only briefly control the swelling, but it will not make for healthy healing.

Protracted cryotherapy is no longer the choice of well-informed doctors. So, what is the alternative? Massage, analgesic (menthol) rubs, kinesiology tape, pulsed ultrasound, low-level laser therapy and exercises are a few valid choices. The term “RICE,” or rest, ice, compression and elevation, was coined by a physician many years ago, and this same MD has now stated that this protocol is no longer a good idea. Years ago, at a sports medicine symposium, the inventor of the “Jump Stretch Band” (or FlexBand), Coach Dick Hartzell, demonstrated how he tightly wraps the band above and below an injured joint, such as the knee, squeezing it like a python and then bending the injured knee back and forth. This brought more blood into the injured-inflamed area while exercising it at the same time: the total opposite of RICE! Some in the audience thought he was crazy, but others of us knew his concept was valid.

Reconsider cryotherapy for acute injuries. Use ice briefly, just enough to dull pain. Also, question the routine application of cryotherapy, especially when a painful condition is not improving. If you are not sure about the appropriate use of cryotherapy, consult a sports medicine professional who is current on the latest trends in treatment.

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