

Heat versus Ice:

Finally an answer to end the debate.

For years a debate has existed on what therapy is the best. Among the many therapies, there exists a continued disagreement on the roles of heat and ice. A great deal of misinformation and misconception exists on this topic. I see people almost everyday that have received bad advice as to when to heat and when to ice. I felt it was finally time to official answer that question and end the debate once and for all.

The Short Answer: ICE, ICE BABY

While it certainly doesn't "feel" as wonderful as a warm heat pack, icing (also called cryotherapy) is the way to go. People naturally question this. Many of us have grown up with the myth that you heat an injury. Some of us have even been told by doctors, nurses, or friends to use heat. So is ice better? The answer is yes, and here's why:

Ice creates a response in the body known as vasoconstriction. Vasoconstriction limits the amount of blood that enters an area by causing the blood vessels to shrink. This is important because inflammation is transported via the blood vessels to the injured area. These products then "leak out" of the blood vessels to start healing the damaged area and "swelling" ensues.

Inflammation is beneficial. Without it, normal healing could not occur. However the body tends to overreact, and the inflammatory response is in excess of what is actually required for healing purposes. This creates a scenario where the body has too many "cooks in the kitchen". The healing processes become less efficient and recovery is prolonged.

The Verdict: Icing creates vasoconstriction which limits inflammation and injuries heal faster.



The Long Answer: NEVER, NEVER, NEVER, EVER USE HEAT

By contrast, when heat is applied to an injured area vasodilation occurs. This causes increased inflammation and complicates the healing process. Heat sure does feel nice while it's on the area. It will feel warm, and loose, and have a generalized feeling of relaxation. But it's what happens in the hours after you take the heat off that things fall off track. It's like the Tin Man playing in the rain: it feels nice today, but in the end you just end up rusted.

Opponents to my rule will say that heat helps loosen the muscles. Or that the increased blood flow will promote healing. The truth is, that even with ice applied to an area there will always be enough blood flow for proper healing to occur. Muscles will feel more stiff after icing. But the goal is not to feel better, it's to get better.

Note: This rule is a perfect rule but for one situation: diabetics. Diabetics should avoid applying ice or heat to any area, especially the hands and feet.

Here's My Protocol



I have come up with a protocol in my practice that is highly effective. It's not so convenient to do. But for those that make the commitment, the consensus is that the results are so incredible they fall in love with their ice pack and can't imagine they ever used heat.

Step One: 10 MIN ON

Place the ice pack on the injured area. It should never be placed directly on the skin, but also never through more than one layer of clothing (like a t-shirt).

Whenever possible you should lay on the ice pack so that your body weight compresses the pack into the inflamed area. This helps the cold to conduct better. This positioning is easy with backs and necks, but can be hard to accomplish when icing arms and legs. In these areas I find wrapping the icepack with an ACE bandage works well.

Ice the area for 10 minutes; no more and no less. 10 minutes.

The goal here is to cool the skin and superficial layers of muscle tissue.

Step Two: 10 MIN OFF

Take the ice pack off the area now and throw it back in the freezer. Wait 10 minutes before reapplying. The goal here is to allow the skin and superficial layers of muscle tissue to warm back up a bit and for the cold to penetrate to the deeper tissues. It prevents overcooling of the skin and eliminates the risk of frostbite.

Step Three: 10 MIN ON

Repeat the application as described above in Step One for a final 10 minutes.

The goal here is to re-cool the superficial tissues and to "lock in" the cold in the deeper tissues.

Step Four: Recover

Wait at least 2 hours before repeating the cycle (10 ON – 10 OFF – 10 ON).

Most people will not feel a major difference from the first 1-3 cycles of icing. Icing is like making a deposit into a bank account. The more deposits you make, the faster your balance grows. By the time you've done 6-7 cycles over a 24-48 hour period you will definitely be noticing a significant improvement. Consistency is the key!

Not All Ice Packs Are Created Equal

As important as icing is, so too is the quality of the ice pack you are using. A good ice pack is an investment. Spending \$15-\$25 on an ice pack can ensure that you've got a high-quality pack that will last you for years. I've got two in my freezer at home that are over two years old and still work like new. Here's some advice when choosing an ice pack.

Expect to spend \$15-\$25 on a quality ice pack. It should be flexible so that it can conform to your body's contours. A good ice pack will also be cold to the touch and stay that way for at least 20-30 minutes.

- Never use instant cold packs. They are fine for first aid kits, but can't be used more than once.

- Avoid the pharmacy “blue gel” packs. They get too cold and then rapidly lose their cool usually in less than 10 minutes.
- Avoid using ice cubes or frozen peas. It just makes a mess.

For ankles, feet, and hands use an ice bath. Pour cold tap water in a basin and submerge the area for 3-5 minutes. Add ice cubes and keep the area in the basin for an additional 3-5 minutes. Done. DO NOT REPEAT FOR AT LEAST 2 HOURS.

A Final Note

While ice helps control the inflammation associated with an injury, it does not help the injury to heal. Ice is not therapeutic. It’s about controlling inflammation and pain so that you can begin therapy sooner and receive therapy with fewer side-effects (like pain during treatment). With an ice pack in the freezer you can get rid of your heating pad. Throw it out so that you’re never tempted to fall into the same trap again.

Knowledge is power, and now you know!

Yours in good health,

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