



Should Ice be used in the treatment of CRPS Or RSD? What About Hot/Cold Contrast Therapy??

CRPS PATIENTS SHOULD NOT BE TREATED WITH ICE, except in very rare situations.

NOT ICE, NOT HOT/COLD THERAPY, NOT HOT/COLD CONTRAST BATHS THERAPY, NOTHING DEALING WITH ICE AND THE AFFECTED CRPS AREA, except in very rare situations where the swelling is extreme and ice needs to be applied to bring it down.

ICE APPLICATION

The application of ice can make the CRPS worsen and/or spread. It can also accelerate the patient through the stages. This is extremely important for the patient to not only know but to make sure their Physical Therapist knows as well. Most Therapy Clinics have caught up on this, it has been known for many years now, but there are still a few out there who need the information. Don't be shy about sharing it!

Patients can sometimes have their CRPS go into the **next stage** (/crps-stages.html) from repeated application of ice packs, as well as from just doing the hot/cold contrast therapy

Ice will also cause the blood vessels to constrict more, reducing the blood flow to the extremities, increasing the pain, causing color changes, etc. but the real damage is to the nerve's myelin sheath; basically, the protective cover for the nerve. Huh?

What is a **Myelin Sheath** and why is it important? *"The tissue surrounding the nerve fibers in the brain, spinal cord, and optic nerves. This covering is made of a fatty substance called myelin. It insulates the nerves and helps them send electrical signals that control movement, speech, and other functions. When myelin is destroyed, scar tissue forms, and nerve messages are not transmitted properly."*

courtesy of <http://www.hopkinsmedicine.org/news/index.html>

The same is true for the bath therapy, **keep it warm.**

We know, it feels good at the time you put it on. We know it seems to make sense on some level, burning pain, apply cold. But in the end what you are doing is constricting the blood vessels, reducing the blood flow, and then when the ice is removed the vessels do not rebound because the protective sheath around the nerve has been damaged. More and more with each application, causing even more of the nerve damage you were trying to prevent in the first place.

Not all of these changes are visible to the naked eye, not all are noticeable immediately, and the effect is cumulative. For some patients, whose allodynia is more pronounced, those with a history of CRPS, or those with prior injuries/diseases/conditions even the application of ice in areas not affected by the CRPS can have the same effect.

So what are the exceptions? There are always exceptions right?

The exceptions deal with those times when there is an injury, blunt force trauma (severe fall, blunt force impact, etc.) where there is extreme swelling involved and their needs to be some ice applied to the area. What is the procedure?

The R.I.C.E. Method; (<http://sportsmedicine.about.com/cs/rehab/a/rice.htm>) If you suffer an injury such as a sprain, strain, muscle pull, or tear, immediate first aid treatment can prevent complications and help you heal faster. Same as below except they didn't include the first one, *Protection*.

One of the most popular acronyms to remember now if you get a sports injury is **P.R.I.C.E.**, which stands for *Protection, Rest, Ice, Compression and Elevation*. Using these immediate first aid measures is believed to relieve pain, limit swelling and protect the injured soft tissue.

FOR CRPS PATIENTS this can get tricky because the CRPS affected areas are typically aggravated negatively by the application of ice; sometimes immediately and sometimes it is sometimes it can take hours, days, even weeks before any changes are manifested. There can even be cases where damage is not known until much later when it is too late to stop or reverse the effects. The rule of thumb is don't use ice unless you have to and if you have to, use it as little as possible. Most patients will begin to feel a change in their CRPS symptoms, increase in pain, maybe the tingling, maybe the burning, etc. Definitely time to stop! Even before that, moderation is the key.

HOT/COLD CONTRAST THERAPY

This can sometimes be called Therapeutic Contrasting, but whichever name it goes by the procedure is basically the same. It is the process whereby you are quickly changing the tissue temperature from hot to cold and back again, repeatedly. This is usually done by immersing the limb or even the entire body, using hot and cold water. How is this different from the usual method of applying heat or ice? By applying both in rapid succession it is an exaggerated form of both but it is typically done with water because it is more practical. Hot/Cold Contrast Therapy *could* be done with Ice & hot water, or Heat & cold water, depending on what part of the body is affected though.

Care must be taken with patients who have sensitivity to ice, high blood pressure, circulatory problems, where there are open sores, skin sensitivity, **or CRPS**. For a good description of Hot/Cold Contrast Therapy, **CLICK HERE** (<http://www.brianmac.co.uk/hcbaths.htm>)

Please make sure your Physical Therapist understands the role that ICE and Hot/Cold Contrast Therapy plays in the disease CRPS.

Doctor Hooshmand's Ice Puzzle

RSD AND ICE - ICE AND CRPS

Neurological Associates

H. Hooshmand, M. D., P.A.

RSD Puzzle #102

Ice Versus Heat

In our study of ice versus heat tolerance, 87% of the patients could not tolerate cold. and 13% could not tolerate heat. The infrared thermal imaging showed that the ones who could not tolerate heat (13 %) had advanced stages of sympathetic nerve paralysis rather than nerve irritation (death of the sympathetic nerve fibers rather than hyperactive nerve fibers). The area of permanent sympathetic nerve damage in late stage acted like a leaky radiator, causing leakage of heat through the skin which resulted in warm extremity and secondary intolerance to external heat. Meaning that due to permanent damage to the sympathetic nerve fibers(after repeated ganglion nerve blocks or sympathectomy) the sympathetic nerves could not contain and preserve the heat originating from the deep structures of muscle, bone, etc. This minority of 13% of the patients did not have the hyperactive cold vasoconstriction of the skin seen in earlier stages of RSD. These heat intolerant patients would be classified as erythromelalgia, rather than the 87% RSD patients who have hyperactive sympathetic function with cold extremity and intolerance of cold exposure.

On the other hand repetitive application of ice freezes and coagulates the myelin (fatty tissue insulating large nerve fibers) exactly like ice freezes and solidifies melted butter. As the ice freezes the large nerve fibers, causing freeze damage to the myelinated nerves, the patient develops sensory loss and pain due to permanent damage to the large sensory nerve fibers. This aggravates the RSD by adding sensory nerve pain of non-sympathetic origin to the initial thermal sensory pain of sympathetic origin. As a result, Ice provides total anesthesia and relief of pain for several minute the same way as the hand becomes numb being exposed to snowballs in the winter. However, a few hours after the cessation of ice exposure, the pain recurs with vengeance due to reactive enlargement of blood vessels after the constriction of blood vessels due to exposure to ice. This phenomenon causes excellent relief of pain with ice treatment followed by not only aggravation of pain, but damage to the nerve fibers adding sympathetic independent pain (SIP) to the original sympathetic mediated pain (SMP). ([/smp-and-sip---what-is-the-difference.html](#))

The end result is aggravation of the RSD and SIP resulting in failure of nerve blocks and then the patient is told, "You do not have RSD anymore because the nerve block did not help you and the phentolamine test proved that you do not have SMP or RSD". In most RSD patients ice makes the condition worse and can cause denial of diagnosis and treatment for the patient. One last comment: this study was on advanced cases of RSD. In early stages of RSD, without exposure to ice, there is far lower percentage of RSD patients who from the beginning suffer from permanent damage to large areas of sympathetic nerve fibers with intolerance of heat and secondary erythromelalgia. It becomes obvious that heat-cold challenge physical therapy is nonsensical because it end result is one temperature extreme neutralizing the other and ice challenge further damaging nerve fibers.

Please stay away from any ice exposure, even if you can not tolerate heat.

H.Hooshmand, MD.

To see Dr Hooshmand's **CRPS/RSD "Puzzles" on Ice click here** (http://www.rsdrx.com/rsdpuz4.0/puz_69.htm) and also **HERE** (http://www.rsdrx.com/rsdpuz4.0/puz_5.htm) and also **HERE** (http://www.rsdrx.com/rsdpuz4.0/puz_102.htm)
(Puzzles number 5, 69, and 102)

To see all of Dr Hooshmand's **CRPS/RSD "Puzzles" click here** (<http://www.rsdrx.com/rsdpuz4.0/001.htm>)

THE EXCEPTIONS REGARDING ICE - The exceptions deal with those times when there is an injury, blunt force trauma (severe fall, blunt force impact, etc.) where there is extreme swelling involved and their needs to be some ice applied to the area. What is the procedure?

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We at American RSDHope are not Medical Professionals. Be sure to discuss with your Doctor any new information before stopping or starting any form of therapy and/or treatment.

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CRPS, Complex regional pain syndrome, RSD, reflex sympathetic dystrophy, crps symptoms, RSDHope, CRPS medication, Neridronate, Bisphosphonate, ketamine, nerve blocks, , crps awareness ribbon, mcgill pain index, crps treatment, crps cure, crps research, national crps awareness, opioids, pain medication, crps support groups,