

Ice, Ice, Baby

Does your horse need cold therapy? Experts advise when, how, and how much

By Sarah Evers Conrad

As you untack from the day's ride, you mentally review your training progress. Deep in thought, you brush, unwrap—and suddenly snap out of your reverie when you notice some swelling and a touch of heat in one of your horse's legs.



COLD AS ICE: From simple cold-hosing to sophisticated chilling systems, the goal is the same: reduce swelling, heat, and inflammation

Uh-oh. He's not lame, but something's not quite right. Your first instinct is to get some ice or cold water on that leg. But should you?

In recent years, some medical professionals and athletic trainers have said that excessive icing of human athletes' aches and pains may be of little value or even counterproductive. With

the proliferation of products designed to help riders chill out their horses, we wondered whether the thinking in equine veterinary medicine had followed suit; so we asked two Olympic veterinarians for the latest science. Here's what they had to say.

Still the Choice for Initial Therapy

Your impulse to get some cold therapy on that swollen leg is spot-on, says Rick Mitchell, DVM, MRCVS, Dipl. ACVSMR, of Fairfield Equine Associates in Newtown, CT.

"If you are presented with an acutely swollen, hot limb, ice is never an inappropriate initial therapy," says Mitchell, who has been a US team veterinarian for five Olympic Games and five Pan American Games. The US dressage-team veterinarian since 2003, he was also the US jumping-team veterinarian from 1991 to 2002.

Mitchell has had to treat all types of injuries during his career, and he says that icing is a great treatment for acute trauma, bruises, contusions, acute strains, and even minor fractures.

"Getting ice on the limb will minimize further swelling and provide some comfort for the animal," he says. "It may also minimize the amount of bleeding and fluid leakage in the area that can lead to a subsequent increase in inflammation. The other thing about ice: When it is removed, there is a local flush of blood that will re-perfuse the area and help wash out waste products in damaged tissue."

Brendan Furlong, MVB, MRCVS, of B. W. Furlong and Associates in Oldwick, NJ, is also a fan of icing.

"I don't think there is ever any down side to icing a horse's leg. I think

it's a great modality that maybe needs to be revisited a little bit, and it doesn't cost very much to do. We always want to think sophisticated. We think we need drugs and injectables and oral preparations of anti-inflammatories, but there are virtually no side effects of icing," says Furlong, who has been the US eventing-team veterinarian since 1994, serving at multiple Olympic Games, Pan American Games, and World Equestrian Games. His is one of the leading sport-horse veterinary clinics in the country and includes a new state-of-the-art Soundness Center.

As for the difference of opinion on icing between equine veterinarians and some medical professionals, Furlong explains that most cryotherapy (the use of cold as therapy) in horses is on the lower legs, where there are no muscles. Human athletes typically ice their muscles, and "I can see how [physicians] would say it would inhibit circulation and the washing out of waste products and that sort of thing. But we're not treating muscles. We're treating tendons, ligaments, and joints."

Post-Workout Icing

Mitchell also recommends icing after hard workouts. "It's certainly indicated to ice their lower limbs to minimize the effects of chronic repetitive trauma on their legs from strenuous exercise," he says.

Ice can be applied elsewhere than just on the legs, Furlong points out. "[Research has] also shown that applying ice to very hot and exerted horses over their gluteal masses and over the massive muscle masses has a beneficial effect," he explains. "They come in; they're hot; they're tired; they're stiff; and icing them is a very effective way of refreshing them and getting their muscle function back again and getting their temperature down.

"Contrary to beliefs prior to the [1996] Atlanta Olympics, when they said you could never put cold on hot horses, that's absolutely not true," Furlong continues. "You can apply ice-cold water to horses post-serious ex-



POUR IT ON: Research conducted prior to the 1996 Atlanta Olympics showed that cooling hot horses with cold water is effective and safe

ertion, and it is a very useful modality to get the horse's temperature down to get them cooled out. And it doesn't cause colic, and it doesn't cause them to tie up, and all of those myths have been debunked."

To cool a hot horse, Furlong recommends applying cold water, then immediately scraping it off and repeating the process. It's important to scrape the water off, as it heats up quickly and can trap heat next to the horse's skin, he says.

Other Uses of Cold Therapy

One very important use of icing is to help prevent laminitis, which is a potentially life-threatening inflammation of the laminae inside the hoof capsule. Laminitis can be brought on as a secondary issue after a variety of events that may release toxins into the horse's system, such as colic, surgery, or a binge on grain. The 2006 Kentucky Derby winner, Barbaro, was euthanized after developing laminitis in multiple feet following surgery and an extended layup after he broke a leg during the Preakness Stakes.

"Icing has definitely been shown to reduce the effects of toxins that could lead to laminitis, and may in fact delay the onset of signs of laminitis and some of the damage that would occur if not otherwise inhibited," says Mitchell.

Other injuries and inflammation sites may benefit from icing, as well. Your veterinarian may recommend cryotherapy for issues such as eye injuries, contusions (bruises), pressure rubs from tack, and inflammation at injection sites.

How Long?

Mitchell likes to apply ice for 20- to 30-minute intervals, especially if he's dealing with something like an old tendon injury; then he'll apply leg wraps. Furlong's rule of thumb for injuries is to ice for a minimum of 30 minutes, several times a day, if the horse will tolerate it.

However, sometimes longer periods of icing are warranted, such as with horses at risk of developing laminitis.

"They can stay in the ice almost

constantly for several hours if need be to help block the onset of laminitis," Mitchell says. "They're capable of standing in snow for hours upon hours. Several hours to a couple of days or more. It just depends on the horse and the situation."

How Do You Like Your Ice?

Back in the day, cold therapy meant cold-hosing, standing the horse in a bucket of ice water (or snow, or a stream), or holding or otherwise affixing an ice pack to the desired area. These methods are inexpensive and still work well, but manufacturers have come up with a variety of ways to make cryotherapy more convenient and potentially more effective. Options include:

Ice boots with frozen inserts.

There are many types on the market, ranging from simple gel packs that slide into sleeves inside the boots to special inserts that retain a snow-like consistency to mold to the area. Some

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models combine the beneficial effects of cryotherapy with compression or vibration as additional healing aids.

"If they're pliable enough to fit the contour of the leg, many of those will stay cold quite a long time, and if they make good contact with the leg, they work very well," says Mitchell.

Furlong points out that "dry" cryotherapy can be preferable to hosing or soaking in certain conditions, such as in hot and humid weather. After "wet" therapy in such conditions, the horse's skin "really has to be dry afterward, or otherwise you leave a great environment for bacteria to proliferate on."

Commercial ice boots are quick and easy to use; just pull them out of the freezer and they're ready to go. Models are variously designed to fit horses' legs, feet, and even tricky areas like hocks and stifles. Users avoid the water waste of hosing or the potential mess (which could result in slippery conditions in subfreezing weather) of the horse's knocking over the bucket of ice water he's supposed to be stand-

ing in. Horse owners and barn managers also appreciate the fact that they can apply ice boots and then go do other things, although manufacturers caution that horses wearing ice boots should be supervised. The down side to ice boots is that they don't travel well unless you have a means of keeping the inserts frozen.

Cold-therapy machines that circulate cold water through boots. "Some of the machines are capable of getting the legs quite cold, and those are good, but if they don't get down below around 4 degrees Centigrade [about 39 degrees F], they don't do much good," says Mitchell. "But there is an FEI [Fédération Equestre Internationale] rule that you can't use anything that goes below zero degrees Celsius [32 degrees F] in a horse-show venue anyway. I think it's good to know what the capability of any machine is that you might be using. Be careful about using machines that get too cold and leaving them on too long because you could freeze the skin."

The cons: The machines may be

pricey, and they require access to an electrical outlet, ice, and water for use.

Salt ice-water spa. These sophisticated machines are the next best thing to standing your horse in the ocean, with its chilly salt water helping to draw out heat and swelling.

"In our rehab center," says Furlong, "we have one of the cold salt-water spas, which has water in it that is slightly above freezing, and it's circulated and has jet streams in it and is a very effective way of causing a degree of anti-inflammatory effect. That's my preferred method [of cold therapy], but obviously that's a very expensive piece of equipment, and

Don't Ice If...

Ice isn't always the answer. According to Dr. Brendan Furlong, ice is contraindicated in the following situations:

- The injury has broken the skin
- The injury site may be infected
- An area of the hoof has sustained a laceration
- The hoof has sustained damage that would soften in water and potentially worsen.

In addition, use caution when icing a foal or a young horse, as its skin is thinner and freezes more quickly than that of a mature horse, Furlong says.

In some cases, including infections, blood flow needs to be encouraged instead of inhibited. Dr. Rick Mitchell explains: "In those cases, I may want to see intermittent warm compresses used as opposed to ice, because I am trying to encourage perfusion."

Mitchell adds: "In the presence of swelling that is unresponsive to periodic icing and compression, a veterinarian should be contacted immediately. And, obviously, in the case of any acute injury where there is rapid development of swelling, it's probably best to involve your veterinary professional."

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not everybody has one of those.”

The natural way. “It’s been shown that standing horses in a very cold stream with moving water is also a very effective way of [using] cold,” says Furlong. “I grew up in a coastal area of Ireland, and a lot of the trainers would take their horses after their work and would have them walking or trotting on the beaches in the fairly cold Irish temperatures in the very cold salt water. It’s a magnificent way to cool down legs and help get rid of lumps and bumps and fillings and what have you.”

Trends in Icing

According to our experts, the popularity of cold therapy has changed through the years.

“It’s very interesting that a couple of years ago I had a group of interns that had to put ice on everything,” says Mitchell. “The group of interns that I have right now, they don’t ice that much. It kind of depends on the ebb and flow of what have been the

thought processes in recent research.

“Like anything else, icing is not a panacea. It’s part of a good training program, where the horse is exercised in increments and the horse’s condition is developed slowly,” Mitchell continues. “I think though that it’s part of a complete program of careful conditioning and good care along with good farriery, good nutrition, periodic veterinary inspection, and just common sense.”

Sarah Evers Conrad, of Lexington, KY, has been a journalist, an editor, and a digital marketer. After eight years at The Horse magazine and Equestrian magazine, she became the US Equestrian Federation’s director of e-communications. In addition to writing for various publications, she now helps businesses with their digital marketing through her company, All in Stride Marketing. ▲

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