

## Alternatives to Bute, Banamine, and Other NSAIDs

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Injuries and other causes of acute inflammation are a common occurrence in working horses. An injury and the inflammation that results can be frustrating, as it may sideline the horse for awhile and in the meantime it causes pain and debility of varying degrees. However, that inflammatory process is actually a good thing. In fact, it is an *essential* early component of the healing process.

Tissue damage from whatever cause (external trauma, infectious processes, excessive strain or compression, chemical irritation, etc.) initiates a cascade of physical and biochemical events which result in these familiar signs of inflammation:

- \* pain
- \* heat
- \* swelling
- \* redness
- \* reduced function

As uncomfortable and restricting as this process can be, there is a point to it. The pain causes the patient to protect and take it easy on the injured area, thereby sparing the compromised tissue from further damage. The heat and redness are indicators of increased blood flow to the injured area, which increases the supply of oxygen, nutrients, antibodies, other defense factors, growth and repair factors, and activated white blood cells to the damaged tissue. The white blood cells mop up and remove cellular debris and any bacteria in the compromised tissue, and they stimulate the tissue repair process.

So, it's important that we not completely quash the inflammatory process in our efforts to make an injured horse more comfortable. On the other hand, inflammation that continues unchecked for any reason can be more destructive than it is constructive, so there is a place for anti-inflammatory therapy in equine sports medicine. Remember, though, that the body is designed to be self-regulating as well as self-repairing. To that end, it has a very refined and sensitive system of checks and balances which is designed to maximize healing while minimizing the potentially detrimental effects of the inflammatory process.

Thus, we help most when we interfere least. That doesn't mean do nothing (although sometimes nothing *is* the best thing to do); it simply means intervene in the body's processes only when necessary and only as much as necessary. Provide the body with what it needs for effective self-regulation and repair (good food, sufficient rest, sense of safety, etc.), remove if possible any impediments to repair, and then give the body time to heal itself. While using anti-inflammatory therapy to relieve pain is a worthy goal, take care to avoid impeding tissue repair in the process.

### **Nonsteroidal anti-inflammatory drugs (NSAIDs)**

The first-line treatment for sports injuries in horses has long been "bute" or phenylbutazone, often abbreviated to PBZ. (An earlier incarnation of this drug was called butazolidin or BTZ.) While bute is an effective anti-inflammatory drug for minor injuries, it does cause some unwanted effects. In fact, some horses cannot tolerate it, even at low dosages. Furthermore, it is a prohibited or restricted substance in several regulated equestrian sports.

Bute is a member of the class of drugs called non-steroidal anti-inflammatory drugs, or NSAIDs. Banamine® (flunixin), Surpass® (diclofenac), Ketofen® (ketoprofen), and

aspirin (acetylsalicylic acid) are other well-known NSAIDs that are used in horses. They all have similar effects on the body, so they all have the potential to cause unwanted effects, which include these:

- \* gastric ulceration (stomach ulcers; fairly common)
- \* ulceration in the colon (right dorsal colitis; uncommon, but bad when it does occur)
- \* kidney damage (usually mild and reversible; more likely and more of a problem when NSAIDs are used in a dehydrated horse)
- \* interference with tissue repair (a consistent effect, but not always of major concern with minor injuries)

These other NSAIDs also are prohibited or restricted in various equestrian sports.

So, if it is best to minimize the use of bute and other NSAIDs, and even avoid them altogether in particularly sensitive individuals, how, then, do we help the horse recover from injury and provide him with some pain relief in the process?

### **Rest**

The body is designed to be self-repairing, and it will endeavor to do so when given a chance. With minor injuries, all that may be required is to ease up on the horse's work load for a few days and let his body do what it's designed to do: heal.

For more serious injuries, a complete break from training may be necessary for a time. Although, in relatively few instances is complete stall confinement necessary or even beneficial. Horses are designed to move; and unless the horse is injured in such a way that the mere act of walking will cause more damage, gentle hand-walking a few times per day generally is beneficial (both physically and mentally) for those who must be stall-bound for whatever reason. In other instances, paddock or pasture turnout may work the best in providing or allowing low-intensity activity while the horse heals.

A couple of side notes: (1) If the horse is lame at the walk, then your veterinarian should be involved and permitted to thoroughly evaluate the horse, institute appropriate treatment, and closely monitor the horse's recovery; (2) No matter how seemingly minor the injury, do not continue to work the horse while he is on bute or any other NSAID, unless recommended by your veterinarian following evaluation of the horse. (There is too great a potential for further tissue damage if pain is being masked by NSAIDs.)

### **Physical therapy**

Physical therapy includes such measures as applying ice or a cold pack to an inflamed area; supporting or immobilizing the injured part (e.g. a joint) with a bandage or splint; and gentle manipulations, such as massage and passive range-of-motion exercises. (Note: Although massage and manipulation of an acutely injured area is not recommended, massaging other areas of the body can be beneficial, as it can relieve painful muscle tension and release endorphins, which are the body's natural pain relievers.)

Even hand-walking can be considered a component of physical therapy, as it gently moves the injured part, thereby promoting circulation and lymphatic drainage. Which, if any, of these measures are appropriate in a particular horse will depend on the nature of the injury and how much time has elapsed since the injury occurred. Physical therapy could be an article all its own, so in the interest of space, that's all I'll say about it here.

### **“Alternative” anti-inflammatory medications**

In the world of complementary and alternative medicine (CAM, or CAVM for *veterinary* medicine), there are numerous substances and procedures that gently help the body

moderate the inflammatory process and optimize healing. The one I use the most for sports injuries in horses is a homeopathic anti-inflammatory, analgesic (pain-relieving) product called Traumeel.

Traumeel repeatedly surprises and delights me. I use it on myself and on my patients. Using my own body as a laboratory, I've found Traumeel to be every bit as effective as NSAIDs for musculoskeletal pain (e.g. when I overdo it with yard work, when a horse steps on my toe or wrenches my hand, when I whack my hip on a door knob, etc.). And from what I've read of the research conducted on this particular medication, it has none of the unwanted effects of NSAIDs on the digestive system, kidneys, or tissue repair process. In fact, it seems to enhance tissue repair.

Traumeel is made by Heel, Inc. ([www.HeelUSA.com](http://www.HeelUSA.com)), and it is a nonprescription item that is available locally through some veterinarians and at Whole Foods and PCC. It comes in a variety of formulations, including a topical gel, tablets and liquid for oral use, and a sterile saline preparation for injection (the only form of Traumeel which is restricted to licensed healthcare practitioners). In horses I mostly use the gel, the oral liquid, and the injectable form. (Don't bother with the ointment in animals; it's fine on human skin, but it's too thick and greasy to be effective on hairy beasts.)

One of the components of Traumeel is a homeopathic dilution of *Arnica montana*. On its own, homeopathic Arnica (whether taken orally or used topically) can be very effective for injuries involving bruising. So, if that's all you can find locally, then it's a good start. In my experience, Traumeel is even better, so it's what I use most.

Several different herbs or plant derivatives also have anti-inflammatory and/or analgesic properties, without the unwanted effects of NSAIDs. Those that seem to be most useful in the management of acute inflammation in horses include devil's claw (*Harpagophytum procumbens*), white willow (*Salix alba*) bark, meadowsweet (*Filipendula ulmaria*), and capsaicin (from *Capsicum* sp.). There are many other herbs, plant derivatives, and nutraceuticals that aid in healing and pain management for more chronic conditions. But that's a topic for another time.

Acupuncture, chiropractic manipulation, and various other CAVM modalities can be effective in the treatment of sports injuries, too. I mention them just in passing, because I wanted to focus on simple things that you could do on your own for minor injuries.

In closing, even if you choose to manage the problem yourself, it's always a good idea to have your veterinarian examine the horse as soon as possible after injury. There may be other damage or some underlying factors that aren't apparent to you, and that information may alter the way the problem is best managed.

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