

Arnica or Ibuprofen?

(As appeared in *Running Times Magazine*, June 2006)

Muscle soreness can be debilitating after a grueling road race or a new speed workout. And prolonged muscle soreness, a sign that muscles haven't fully recovered, may increase a runner's risk for a muscle strain, tear, or a compensatory injury. Traditionally, to alleviate soreness, many runners have kept bottles of ibuprofen within arm's reach on nightstands, crammed in glove compartments, and hidden in desk drawers at work. But recently, a product spurned as quackery by notable physicians and hailed as a much needed rediscovery by alternative health practitioners is vying with ibuprofen for medicine cabinet space: homeopathic arnica.

Homeopathy is derived from root words *homeo* and *opathy*, meaning "similar" and "suffering." A traditional homeopathic doctor will analyze the patient's symptoms and prescribe a remedy, usually pills or a tincture. According to homeopathic theory, the "active" ingredient of each remedy will produce the same or similar symptoms the patient is being treated for. The idea is to kick-start the patient's natural defense mechanisms into overcoming the ailment. Although some homeopathic remedies like *Rhus Toxicodendron* (poison ivy) appear dangerous, the amount of active ingredient in any one homeopathic remedy is very diluted. In many preparations, not one molecule of the original substance remains in the final product. Since the amount of active ingredient in a remedy is almost nil, homeopathic medicine is considered to be relatively side-effect free.

Arnica, commonly referred to as Mountain Tobacco or Wolf's Bane, has been used by homeopaths since the early 1800's to treat a variety of conditions, ranging from muscle soreness

to infectious fevers. But by 1930, as medical schools underwent drastic changes primarily due to the influential Flexner Report, which emphasized a biomedical and standardized curricula, most homeopathic medical institutions shut down. In the 1960's, an interest in homeopathy grew and continues today, evidenced by the liberation of homeopathic remedies from health food stores. Now, with the endorsement of integrative physicians such as Dr. Andrew Weil, homeopathic remedies in their hospital-white pill bottles, cryptically labeled 6x and 30x, are prominently displayed on pharmacy counters. With the backing of popular health personalities and a disclaimer that boast of being relatively side-effect free, homeopathic arnica seems to have the edge on its pain-reliever competitor—ibuprofen.

Yet, many scientists and medical experts remain unconvinced of the efficacy of homeopathic medicines and question if a minuscule amount of “active” ingredient can have any effect on the human body at all. Placebo researchers Arthur and Elaine Shapiro are of that ilk, having concluded that homeopathic remedies, along with most herbals, act as placebos, agents whose active ingredient produces no physiological response. Though it is true that a growing number of doctors are open to alternative medicine such as homeopathy, it may be for reasons based on the Shapiros’ research: Homeopathic remedies will produce a placebo response with some patients. So why not encourage the placebo response with patients who seem receptive?

Historically, homeopathy has had its success stories. Couple that with a system of comprehensive diagnoses and treatments defined in a tome called the *Homeopathic Pharmacopoeia of the United States*, and the current scientific investigation into homeopathy is undoubtedly warranted. But so far, no one can say for sure if homeopathy works—or for that

matter, if it doesn't. A 1998 trial (Vickers AJ, et al.) that measured homeopathic arnica efficacy for muscle soreness after long-distance running concluded the remedy was ineffective. A 2003 study by Tveiten and Brusset determined that homeopathic arnica worked better than a placebo for relieving muscle soreness immediately after marathon running. Meta-analyses of other trials measuring pain reduction associated with homeopathy arnica offered no firm answer either. The National Center for Complementary and Alternative Medicine sums up a broader problem with the investigation of homeopathy in general: Because of lack of good quality studies, "it is difficult or impossible to draw firm conclusions about whether homeopathy is effective for any single condition."

It appears that it will be a long time before the medical community will reach a consensus on homeopathy. Meanwhile, some medical advisers, like consultant pharmacist Kevin Leivers of the UK, have been recommending another type of arnica product for muscle soreness—herbal arnica gel. An herbal arnica gel may contain anywhere from 1 to 25 % arnica plant, much more than any homeopathic remedy. In a 2002 study (Kneusel, Weber, and Sutter) on osteoarthritis knee pain, arnica gel had notable success in reducing pain and stiffness. Though, like homeopathic arnica, there are not nearly enough clinical studies to form an absolute conclusion, many researchers are encouraged by the early, positive results. Furthermore, arnica gel presents a testable mechanism of action. Arnica contains helenalin and related compounds, which are known to be involved in anti-inflammatory action. The concentration of arnica in gels is much higher than in homeopathic remedies and thought, by some researchers, to be a viable explanation for an anti-inflammatory response.

Another way of using herbal arnica to treat muscle soreness is internally, but almost all experts and health agency recommend against it. The FDA considers consumable arnica as unsafe. One fatality has been reported following consumption of a 70-gram arnica tincture.

Ideally, scientific testing screens out dangerous and ineffective products for the consumer. But the reality is, all the data for homeopathic arnica and herbal arnica gel are not in, and won't be for awhile. Considering that both are regarded as safe, it may be time to self-experiment. But is a vial of homeopathic arnica pills worth the ten or so dollars it costs? To someone concerned about potential side effects of popping ibuprofen for twenty years, the answer might be yes—especially if the decision is made under the advisement and supervision of a family physician or health practitioner who has a working knowledge of homeopathy.

For those more skeptical of homeopathy, the ten dollars may be better spent on a tube of arnica gel. The early evidence of arnica's anti-inflammatory properties is encouraging, though more studies need to be conducted. And side effects such as redness, itching, and contact dermatitis are considered to be rare.

But swearing off ibuprofen is hasty—especially after a big race or when peaking during training. Working toward less reliance on ibuprofen by rotating it with different arnica treatments during non-critical training times would seem the most prudent approach. And who knows, maybe a 2.5 ounce tube of arnica gel may yield 100 miles of better running.

--Mark Liskey