

Herbal support for Athletes

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When we stop to consider how much our physical frame and physiological systems endure for even a moderate walk around town (coordination, tendon stretching, impact buffering, blood sugar changes, and more), it's remarkable that human beings perform so well when engaged in physical activity! Good pre- and post-workout nutrition is crucial, as quality fuels provide a lot more than just energy to our bodies, but beyond eating well, herbal support can address three key areas that are important for athletic types and for anyone who is even moderately active: preventing problems, enhancing stamina and endurance, and treating any injuries that might sideline us. Usually herbs are used internally for the first two areas of focus, and in treating injuries external and internal therapies can play a role.

Prevention: strong blood, good circulation, supple connective tissue.

The areas that tend to get the most abuse in many athletic disciplines (even walking) are the joints, ligaments that surround them, and the tendons that attach muscle to bone and joints. Muscles themselves can also experience strains and tears, but these usually heal more quickly than those in joints or connective tissue.

Stretching and listening to your body are, obviously, crucial. Beyond this there are some key preventive strategies where herbs can really help.

- First, it is important to build and maintain “strong blood”. This really means that the blood should have excellent oxygen-carrying capacity and plenty of red blood cells and hemoglobin, so that muscle tissue receives all the oxygen it requires for healthy aerobic activity. When starved and forced to work anaerobically (without oxygen) for any length of time, muscles are more susceptible to injury. Additionally, “strong blood” usually includes the idea of “clean blood”, a somewhat mysterious herbal concept, which usually means that there are fewer reactive free radicals present in the bloodstream. The blood itself is therefore less pro-inflammatory. Inflammation is, of course, at the root of much joint pain, chronic fascia, tendon, and ligament pain, and more.

Astragalus builds the oxygen-carrying capacity of the blood. It also is a preventive agent for common viral infections, often the bane of athletes. You can simmer a few tablespoons of the root with vegetables and/or bones when making a soup stock, or take about 500-1,000mg twice a day in capsule form.

Ginkgo is not that useful to strengthen blood, unless you're moving to higher altitude (over 5,000 ft or more) and you aren't used to the lower levels of oxygen one finds up there. 240mg daily of the standardized extract for 3-5 days prevents altitude sickness and speeds the blood's adaptation to the new environment.

Curcumin from **Turmeric** has a host of beneficial functions in the body, but for athletes one of its most important is the ability to reduce inflammation overall by acting as an antioxidant and liver balancer. It is used for chronic joint pain and injury, but is an excellent preventive agent as well. To this end, we usually use about 1,000mg of curcumin daily, taken with a little black pepper in the middle of a meal.

Fish oil and other omega-3 fatty acid sources (lots of greens, flax seed for example) are another class of nutrients essential for keeping overall inflammatory burden in check. We suggest 2g daily for maintenance, and up to 4-6g daily during peak, intensive training. One final nutrient is related to the side effect of a commonly prescribed class of medication. Statin drugs (lipitor, zocor, et. al.) are used to treat high cholesterol, but have the unfortunate side effect of depleting **Co-Q10** from cells. I recommend this supplement for athletes who are taking statin drugs and notice an increase in fatigue.

- Blood with a good capacity to carry oxygen and control the production of inflammatory chemicals is a great start, but beyond this we also need to ensure adequate circulation. This is for the muscles again, but even more crucial for tendons and ligaments where circulation is notoriously poor to begin with.

Gotu Kola is a water-loving ground cover plant that grows quite well as an annual in Vermont. It is a tonic for connective tissue and also improves circulation and oxygenation of all organs of the body. The daily dose is 3-5 fresh leaves, or about that many droppers full of a liquid extract (tincture). 3 capsules a day is ok if nothing else can be found.

Hawthorn berries, Blueberries, and other colorful berry fruits are fantastic sources of bioflavonoids which improve circulation, reduce inflammation, and protect the heart and capillaries so they can continue to perform as efficiently as possible. Aim for ¼ to ½ cup a day of mixed berries, fresh or (even better) frozen. Jam preparations are also acceptable.

Caffeine should be used with caution. While a little seems to boost performance somewhat, it can also restrict circulation to the heart and muscles when overconsumed, leading to premature fatigue. Play it by ear – I typically find that 1-2 cups of coffee is fine. Black tea has less caffeine and way more circulatory-enhancing and anti-inflammatory antioxidants, too.

Performance: herbs that improve speed and endurance and enhance recovery

Most athletes are interested in ways, beyond training, that they can support themselves as they push the body further in distance, speed, intensity, or all of the above. Usually, one reaches a limit where the physiology's ability to absorb more training and improve hits a plateau, and continued exertion can lead to burnout, injury, or both. Generally speaking, the "adaptogenic" herbs can push that limit back, allowing for more exertion, improvement, and therefore greater performance. Here are three excellent and effective adaptogens to help us bounce back faster from hard training and also improve performance in the short term.

Rhodiola rosea is the root of an Arctic plant traditionally used to support stress and counteract fatigue. Exercise is perhaps the "purest" embodiment of physical stress on the system, and Rhodiola can help both in the short term (before a race, e.g.) and long term by pushing back the threshold of fatigue and getting us quickly ready for the next workout. Try a liquid extract, using about ½ teaspoon once or twice a day during training, or ½ to 1 teaspoon before a challenging workout or race.

Eleuthero (a.k.a. Siberian Ginseng) is a classic athlete's tonic. It was first researched in Russia to enhance the stamina of its soldiers and cosmonauts, but quickly found its way into the athletic programs as well because it is effective. 2-3g of the root are consumed daily.

American Ginseng, the gentler and more nourishing cousin of Korean Red, seems to be a tonic for the physiology's reserve: rather than stimulating immediate performance, it can help us perform our best when taken regularly, by improving the regenerative capacity and helping us rebuild during sleep and recover. To "bounce back" more quickly and completely, thus avoiding injury (and most crucially, avoiding burnout). 5-7g of the root is a typical daily amount, or a couple of teaspoons of a strong tincture.

Cordyceps is actually a mushroom, not an herb, and there is some conflicting research showing that it may increase performance and endurance when taken regularly. Some of the recent clinical evidence did not show much effect; my feeling is that it helps individuals who might be already in a depleted state (i.e. coming back from an injury, or following a taxing race). Typically between 500 and 1000mg are consumed daily.

Treating common injuries: anti-inflammatory herbs and connective tissue repair

In working with active people, it seems that the issues that come up over and over again either involve connective tissue (sprains, tendonitis, fasciitis) or joints and articulations (arthritis, bone spurs). The preventive health strategies discussed above are important, of course, as is a concerted program of rest and physical therapy to rehabilitate the injury. Beyond this, we have a lot of great herbs to use both topically (on the site of pain) and internally that are a great alternative to ibuprofen.

Arnica is used topically as an oil or gel, and internally as a homeopathic remedy (usually the latter is at a 30C potency). It reduces inflammation, prevents bruising, and just greatly speeds the recovery process for almost any injury, but especially sprains (twisted ankle, e.g.) and trauma (bashes, falls, etc). For more nagging, chronic injuries such as tendonitis, runner's knee, IT band syndrome, fasciitis and more, Arnica is less useful but can still be helpful, especially if combined with Horsechestnut (see below).

Ginger makes an excellent compress for sore muscles or for specific areas of inflammation around a joint or tendon. Brew a strong tea by steeping 1 TBS of powder in a cup of hot water for 5 minutes, then soak a cloth with the tea and apply to the affected area a few times a day.

Wintergreen essential oil is another excellent liniment, more for arthritic and other chronic joint complaints. It's a bit too strong to use "neat", or undiluted, so use about 10-15 drops of oil in 1 ounce of a carrier oil such as olive or grapeseed oil. It has a very cooling quality, and works well in alternation with the ginger compress.

Horsechestnut is a remedy often used internally for varicose veins and chronic inflammation throughout the body. In Europe, it is also used topically for any type of connective tissue injury or chronic inflammation – sprains, and tendon/ligament/fascia injuries. The liquid extract is a great way to use this plant both ways: 45 drops twice a day internally, and rubbed directly onto the affected area topically twice a day. It reduces not only inflammation but also the swelling associated with it.

Final note: often many of these herbs are employed at the same time, depending on the situation at hand. For instance, a combination liquid formula made with Hawthorn, Gotu Kola, and Horsechestnut could be used to speed recovery from a twisted knee and prevent recurrence at the same time. Additionally, the concomitant use of internal and external herbs along with physical therapy that strengthens the muscles and connective tissues around the injured area yields the best results.