



elementals
EQUINE THERAPIES

Glucosamine & Chondroitin

Articular cartilage is one of the first parts of the body to deteriorate due to wear and tear. As most joints have minimal circulation, cartilage has less ability to regenerate naturally. The balance between deterioration and regeneration can be easily disturbed - a strain, repeated heavy use, poor nutrition, poor conformation or hoof imbalance can start a cycle of events that will lead to progressive degeneration of the joint.

Inflammation is a normal response to injury and joints are no different. When a joint becomes inflamed a "greater amount of synovial fluid is produced (which is often of poorer quality) and enzymes can be produced which actually degrade the cartilage and synovial fluid" (Stashak - 1995). This starts an inflammation cycle with the body being unable to produce enough glucosamine to keep up repairs & maintenance. This can ultimately lead to degenerative joint disease. An older horse is at particular risk because the body systems slow down with age.

Non-steroidal anti-inflammatory drugs (NSAIDs) are the 'classic' treatment for osteoarthritis, in part because they tend to reduce the inflammation. However, NSAIDs do nothing to prevent the source of the disease and long term use may even cause joint degeneration. For these reasons there is increased interest in glucosamine and chondroitin sulphate.

Glucosamine & Chondroitin Sulphate

Glucosamine is a naturally occurring substance produced in an animal's body from glucose, the function of which is to maintain and regenerate cartilage in joints. It forms part of a larger molecule which is a major constituent of bones, ligaments, tendons and synovial fluid. Synovial fluid is a thick, stringy fluid found in the cavities of synovial joints. Its function is to reduce friction, lubricate and cushion.

Glucosamine and chondroitin (chondroitin sulphate) supplements have grown in popularity because the two compounds are thought to soothe painful joints and decrease the risk of osteoarthritis. Glucosamine and chondroitin are commonly believed to prevent the breakdown of joint cartilage and/or stimulate the production of new cartilage, preserving joint integrity.

According to Choice, the evidence that glucosamine is an effective treatment for osteoarthritis is very much stronger than for other 'alternative' treatments. In addition they state that Glucosamine has been used for more than 20 years. During this time 16 randomised controlled trials have shown that it's both effective and safe in the short term. It not only relieves the symptoms of osteoarthritis but may help reverse the disease's progress. It compares well with conventional pain relief, with trials showing it's at least as effective as paracetamol and the NSAID Ibuprofen. Several trials have shown safe in the short term, it is well tolerated by most people, and has fewer side effects than NSAIDs.

Chondroitin facilitates the entry of glucosamine into the joint, whilst glucosamine helps rebuild cartilage & synovial fluid within the joint and reduces the inflammation in the joints, reducing swelling and pain. It commonly comes in two forms Bovine Collagen and Shark Cartilage, our Chondroitin is Shark Cartilage.

Relief from symptoms generally takes at least four weeks. Protection of joints occurs after continuous use over a much longer period. We recommend you feed a higher dosage (20-40g per day) for the first 6-8 weeks until symptoms subside and then revert to a lower maintenance dosage (10-20g per day).

Cautions:

Our Glucosamine Sulphate powder is shellfish derived people allergic to seafood should exercise extreme caution when handling this nutritional supplement.

Sources:

www.sportsinjurybulletin.com ; www.natural-animal-health.co.uk; www.choice.com.au; www.pubmed.com.au

Fact sheet