InClover Jump® joint health for dogs, clinical data

Inflammation in the body inhibits the bioavailability of physiological metabolites glucosamine, chondroitin and hyaluronic acid from reaching and repairing the joints. Phytochemicals Cayenne Pepper and Yucca Root work to release built up inflammation allowing for increased access to the affected areas. The main constituent of Cayenne Pepper, capsaicin, inhibits the synthesis of pro-inflammatory prostaglandins by blocking cyclooxygenase activity (Percival, 1999). Cayenne can also improve circulation to reduce inflammatory buildup as well as fight inflammation caused by oxidization with antioxidant compounds (Sarabon et al., 2018). Yucca is a rich source of steroidal saponins that have been shown to have anti-protozoal activity and reduce joint inflammation. Yucca also contains high levels of polyphenolics that have antioxidant and anti-inflammatory activities to suppress free radicals that stimulate the inflammatory response (Cheeke et al., 2006) (Backer et al., 1972).

Build-up of oxidation caused by free radicals contributes to increased inflammation and stress on the body that reduces the bioavailability of the three crucial joint building blocks as well as obstructs their access to the joints. Alfalfa has powerful anti-oxidant and free radical scavenging activity which aids in suppressing reactive oxygen species that stimulate inflammation. Alfalfa has been shown to effectively preserve cell integrity by neutralizing free radicals and contains amino acids that work to reduce inflammation by impeding the production of proinflammatory cytokines, in particular IL-1B (Hong et al., 2009) (Chen et al., 2015).

Proper circulation throughout the body is an important factor to ensure that glucosamine, chondroitin and hyaluronic acid are able to reach and repair the joints. Ginger Root stimulates the blood circulatory system as well as aids in the removal of harmful blockages that obstruct ease of access. Ginger Root has been shown to reduce pain and stiffness in the joint by increasing circulation and flushing out blockages. It also contains powerful antioxidants to fight free radicals responsible for inflammation in the body (Scheer, 1996) (Bode & Dong, 2011).

Methylsulfonylmethane (MSM) is an organic sulfur containing compound that can significantly decrease discomfort associated with arthritis and inflammation (Merwe & Bloomer, 2016). Powerful antioxidant properties of MSM inactivate harmful free radicals reducing the stress on the body. It also has been shown to reduce joint degeneration and inflammation while acting as a natural analgesic to block the transfer of pain impulses through nerve fibers (Kim et al., 2006). It also slows down the inflammation process by increasing the activity of cortisol (Usha & Naidu, 2012).

Glucosamine is a natural chondroprotective agent that has been shown to alleviate and reverse the symptoms of joint damage by boosting the repair of damaged cartilage (Bhathal, 2017). Glucosamine does this by improving the synthesis of glycosaminoglycans, one of the building blocks of cartilage, as well as inhibiting cartilage destroying enzymes (Usha & Naidu, 2012) (Kelly GS, 1998).

Fish oil contains omega-3 fatty acids eicosapentatonic acid (EPA) and decoxahexaeonic acid (DHA) which reduce inflammation responsible for pain and swelling in the joints. This is because the fatty acids block inflammatory cytokines and prostaglandins by converting them into resolvins (Kremer et al., 1990) (Goldberg & Katz, 2007). The EPA and DHA also lubricate the joints to reduce symptoms of stiffness (Roush et al., 2010).

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