



NOT ALL JOINT SUPPLEMENTS ARE THE SAME!

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Joint conditions in horses occur as the result of a number of processes and are not necessarily restricted to the older horse.

- Physical injury or trauma to a knee or fetlock may create a bony reaction which remodels and may set up a chronically painful area from direct trauma or ligament tearing
- Inflammatory processes or acute infections within the joint require specific Veterinary management. Once these conditions have resolved there is often residual joint or cartilage damage – thinning or erosion, which, without correct supplementation, the cartilage will fail to regenerate to functional soundness.
- Repetitive wear and tear joint injury is common in eventing and performance horses. This is particularly true with show jumpers as the cartilages of the knees and fetlocks undergo repetitive and cumulative weight bearing trauma on landing. As a result inflammatory processes may establish in the joint and without correct supplementation the joint cartilages may wear thin.
- Developmental joint conditions such as OCD occur in the actively growing horse and require specific Veterinary diagnosis and management. Correct supplementation will assist in the recovery from the less severe forms of developmental joint disease.
- Degenerative joint disease (osteo-arthritis) may occur in any joint – not restricted to the distal limbs. It also occurs commonly in the stifle joint and along the back and may be the consequence of a fall early in life. Degenerative joint disease is more common as the horse ages but its occurrence early in life is thought to have some heritable component.

Depending on the severity and longevity of the condition the degree of lameness may vary considerably. In the early stages, before a definitive diagnosis, joint pain may be associated with behavioural changes such as unwillingness to work, reduced work capacity and performance as well as bad habits such as biting, kicking, difficult floating and bad stable manners. Specific conditions diagnosed by you Vet will have specific management and treatment.





Damaged cartilage is known to be able to regenerate as long as it is provided with the raw materials to do so.

- **Glucosamine** is an essential component of cartilage production. **Glucosamine** is necessary for the production of connective tissue and stimulates collagen production. Collagen is the protein portion of the fibrous mesh that holds joints together and is also the main component of articular cartilage. **Glucosamine** is known to bind water in the cartilage matrix and not only manufactures more collagen but also normalizes cartilage metabolism which keeps cartilage from breaking down. **Glucosamine** also possesses remarkable anti-inflammatory effects.
- **Chondroitin Sulfate** is also the principal component of the organic matrix in cartilage. It also works to protect cartilage from premature breakdown by attracting fluid into the cartilage, reinforcing the “shock absorber” effect.
- **Manganese** is essential for bone formation and manganese gluconate is an excellent source of this trace mineral.
- **Methylsulphonylmethane (MSM)** provides sulphur – a vital building block of joints and cartilage which bonds and strengthens the tissue that make up the joints.
- **Calcium Ascorbate** is a natural form of Vitamin C, which is much more readily absorbed in the blood stream than the other forms of calcium. The binding of calcium with Vitamin C delivers the benefits to the joint of both calcium & Vitamin C promoting bone and cartilage health
- **Zinc** has been shown to relieve joint pain and reduce stiffness and as such is an ideal inclusion in a joint nutraceutical.
- **Copper** is well known for its ability to reduce joint pain and for its anti-inflammatory action.

The key ingredients are Glucosamine and Chondroitin. These are safe naturally occurring ingredients and produce no negative side effects. Glucosamine and Chondroitin are not present in standard equine diet components and so supplementation is imperative for receiving necessary dosages.

Supplementation then should be used to:

- To assist recovery in damaged joints
- As a preventative measure to provide raw materials to assist to maintain joint and cartilage health and integrity for horses in regular repetitive work





However! Not All Supplements are the same!

There is an ever increasing range of equine joint supplements available on the market containing various combinations of the “actives” discussed above. In choosing a supplement for your horse you must consider several important factors and not base your purchase decision on price, pack size or the eye appeal of the label design.

- **Source of Raw Materials** - Glucosamine and chondroitin are usually derived from natural sources - the exoskeletons of shell fish, shark cartilage or bovine cartilage.
 - **Bovine cartilage** has a history of over 40 years of credible research with proven success in assisting cartilage synthesis, repair and protection. The source of bovine cartilage is generally from younger animals (less than 18 months of age) that are grown for meat production at this age.
 - **Shark cartilage** usage is a more recent trend, particularly popularized with an anti-cancer claim that “sharks don’t get cancer” – Actually sharks do get cancer!
 - Sharks are not “farmed” – they are caught from diminishing ocean reserves indiscriminately at any age or any species.
 - Older individuals are favoured – because they are larger, however the cartilage from older sharks becomes ossified – bone like – and the ossified cartilage from these sharks is clinically of little use – components such as Chondroitin will be present in the resultant product, when analysed, but is not absorbed from the intestine!
 - Because sharks are top of the food chain and are long lived, they often accumulate higher levels of heavy metals. Additionally heavy metal levels are generally higher in imported shark cartilage due to contamination in the oceans adjacent to many Asian countries.
 - Less expensive supplements contain powdered shark cartilage of differing molecular size and weight – the absorption, clinical availability and effect of this product is variable compared to more refined products.





- **Quality** – The quality and purity of the raw materials is essential to achieve the best clinical response. With the influx of imported shark cartilage, particularly from Asia, the price of these raw materials has reduced. However the quality of this imported shark cartilage depends on the processing method. Chemical extraction to clean the cartilage is quick and less expensive, however chemical residues are a problem which may also inhibit its effectiveness.
- **Bioavailability – the key to Efficacy** – Recent research on bovine cartilage, particularly in the medical field, has been aimed at refining the active basis of how cartilage supplements work. The health benefits derived from cartilage come mainly from the low-molecular-weight (LMW) molecules it contains. These molecules inhibit blood vessel growth, reduce inflammation, have anti-oxidant properties as well as inhibiting enzymes which break down collagen (metalloproteinases).

Gentle extraction methods have been developed to harvest this low molecular weight Chondroitin sulphate in a purified form. It has been shown to be better absorbed from the intestines and consequently is more biologically available to the tissues for best clinical effect. The cost of producing this raw material is naturally higher than using the unrefined product, however in doing so the “active” in bovine cartilage is concentrated for maximal clinical effect.

Many joint products on the market do not use refined Low Molecular Weight Chondroitin sulphate and the clinical response in your horse may be variable with the larger molecular size and weight in these products, due to reduced absorption.

Nature Vet has formulated its joint supplements based on the best technology and knowledge currently available – Low Molecular Weight refined Bovine cartilage. Quality and efficacy rather than price provide the best product for your horse.





COSEQUIN EQUINE POWDER

Cosequin is a highly purified promoter of cartilage synthesis, repair and protection. It is a safe and effective nutraceutical incorporating Glucosamine, purified low molecular weight Chondroitin sulphate, based on the technology discussed above, and manganese.

JOINT GUARD

Joint Guard Powder for Horses also promotes cartilage synthesis, repair and protection but has msm an added anti-inflammatory agent.

*Quality Efficacious Nature Vet Joint Products for your Horse
Representing Better Value for Money!*

