

HYALCHONDRO EC Plus

food supplement for horses

Hyaluron – Chondroitin – Complex with manganese and vitamin E. A unique food supplement supporting development and maintaining healthy locomotor system in all categories of sport and labour horses and ponies

Dear breeders and friends of horses, let me inform you about the new food supplement designated for horses called **HYALCHONDRO EC plus food supplement for horses**, which has been developed by the investigators within the Bioveta, a. s. The product was formulated in order to develop maximally effective food supplement, which is unique in our market. The aim of our research workers resulted in the development of a unique combination of active ingredients together with vitamin E and manganese. We managed to produce a preparation with a high concentration of active ingredients, particularly hyaluronic acid and sodium chondroitin in a complex form with evident effects on the locomotor system. The preparation is also enriched with vitamin E and trace element manganese. The aforementioned combination of all components of the product ensures maximal care for the locomotor system of the horses. The preventive use of the product is recommended mainly in foals and young horses in the period of growth, during which there is an increased burden of the locomotor system. Preventive use of the preparation is suitable in sport horses and ponies in the period of increased physical exertion during training and racing. It is appropriate to use the preparation in labour breeds of horses and older horses to extend the active age.

ADVANTAGES OF HYALCHONDRO EC plus veterinary product:

- **a unique combination of active substances in the product ensures an optimal care and nutrition of the locomotor system.**
- **positive effect in case of degenerative changes in joint cartilage and its subsequent restoration.**

- **great tolerance and pleasant taste.**
- **great and rapid absorption of the product due to special adjustment of the original raw material.**
- **reduced content of glucose in invert sugar.**
- **possibility of a long-term administration without the risk of adverse effects.**

HYALCHONDRO EC plus is suitable especially for:

- **sport, racing and saddle horses prior to the initiation and during the season.**
- **young horses and ponies to support healthy development of the locomotor system.**
- **labour breeds and older horses to extend active age.**
- **all horse breeds in the period of recovery after a previous disease or surgical procedure on the locomotor system.**

DESCRIPTION OF THE PREPARATION

Viscous syrup-like opaque fluid, colourless to off-white, with characteristic fruit odour.

INDICATIONS

Food supplement is specifically intended to support correct development and function of the locomotor system in all horse breeds. It is used in case of increased demands on the locomotor system of horses, in the period of growth to strengthen and support quality development of the locomotor system, in case of training or work strains, after injuries and after operations on the locomotor system. It may be used in all age categories of horses. A unique combination with manganese positively influences the metabolism of collagen, production of connective tissue in the body, especially formation of cartilage. Vitamin E has a positive effect on the course of osteoarthritis and also acts as a strong anti-oxidant protecting the body against free radicals. Vitamin E also increases the resistance of the organism during strenuous conditions during the period of growth and training.

The product may be administered during the whole year. It is intended for all sport, racing and labour breeds of horses, possibly for ponies, as well as to older horses to extend their active age.

COMPOSITION

Hyaluronan – chondroitin complex, invert sugar with reduced glycaemic index (glucose, fructose), vitamin E (as DL-alpha tocopherol acetate), manganese (in the form

of manganese sulphate, monohydrate), stabilisers: potassium sorbate, citric acid, poloxamer 407, xanthan gum, flavour, purified water.

SHELF LIFE

2 years.

Use within 6 months after 1st opening. All unused veterinary medicinal product or waste from this product must be disposed of according to the local regulations.

NUTRITION VALUE

	Ve 100 ml	Daily dose – horse 15 ml	Daily dose – pony 10 ml
Energetic value	690 KJ/162 kcal	6,9 KJ/1,6 kcal	13,8 KJ/3,2 kcal
Proteins	0	0	0
Fat	0	0	0
Fructose	18,5 g	2,8 g	1,9 g
Glucose	15 g	2,3 g	1,5 g
Vitamin E	100 mg	15 mg	10 mg
Manganese	100 mg	15 mg	10 mg
HCK	5500 mg	825 mg	550 mg

DOES NOT CONTAIN ANY DOPING SUBSTANCES!

ACTIVE SUBSTANCES CONTAINED IN THE PREPARATION

Hyaluronan – chondroitin complex
Hyaluronic acid is a part of the synovial fluid in the joints and ensures correct function of the locomotor system. It prevents adverse friction in the joints, which is caused by the loss of synovial fluid. Hyaluronic acid contributes to general regeneration of the cartilage and its molecules produce a protective layer on the surface of the cartilage. It has a function of an absorber of impacts during motion. Due to increased burden on the joints and increasing age, is the production of hyaluronic acid in the body reduced and it is necessary to supplement it. In a young healthy organism is the hyaluronic acid produced from glucosamines, which get to the organism with food. Due to the aging process is this ability reduced and therefore it is necessary to supplement hyaluronic acid best in the form of an oral emulsion.

The aforementioned pharmaceutical form ensures maximal efficiency and also an easy and safe application in comparison with injection application form.

Chondroitin sulphate belongs to the group of polysaccharides. Its main effect is to increase the permeability of cartilage tissue for nutrients and subsequent nutrition of the cartilage. It helps regeneration of cartilage by means of an extra-vascular supply. Chondroitin sulphate enables removal of waste products of metabolic processes inside the cartilage, and thereby contributes to its regeneration and maintains its optimal function. Insufficiency of chondroitin causes insufficient supply of the cartilage, the result of which are damaged and degenerated cells. This fact helps the development of osteoarthritis. Apart from these physiological properties, chondroitin sulphate is also significantly affecting the inflammatory processes in the joint.

Arthritis and osteoarthritis are a degenerative joint diseases characterised by various degrees of joint cartilage destruction. The clinical manifestation of this disease includes pain and dysfunction of affected joint.

Vitamin E

The most important function of vitamin E is undoubtedly its anti-oxidation effect. Free oxygen radicals are produced during the metabolic processes in the cells and these cause more extensive oxidation stress, which results in an impairment of cells by oxidation of polyunsaturated acids in the cell membrane. In this case it is necessary to supplement vitamin E to the organism. Vitamin E demonstrably slows down the process of cells aging. Vitamin E in the body contributes to restoration and support of the locomotor system, accelerates healing after injuries and positively influences the growth of muscle tissue.

All categories of horses
15 ml / day
Continually for a period of 30 days

All categories of ponies
10 ml / day
Continually for a period of 30 days

ROUTE AND METHOD OF ADMINISTRATION

Oral.

Add the daily dose to the provided cup and add it to the feed or aspirate the daily dose from the cup to the provided applicator and administer directly to the oral cavity. Recommendation: Do not aspirate the preparation to the applicator directly from a bottle. You will thereby prevent contamination from the bottle content.

Note for the consumer

Do not exceed the recommended daily dose. Shake well before use. Possible opalescence is natural and it is not a problem for the preparation. Keep at a temperature below 25°C. Protect from light. Only for animals. Keep out of the reach of children. Measuring cup and syringe are included in the packaging.

APPLICATION OF THE PREPARATION WITH INCREASED DOSAGE

It is appropriate for the animals with chronic disorder of the locomotor system or for animals with high demands on the locomotor

system. Manganese belongs among the important microelements that are required for some physiological functions in the organism. Specific function of manganese is engaged in the synthesis of glycosaminoglycans in the cartilage. Manganese has an essential function during synthesis and restoration of cartilage tissue. It has a positive effect on the growth and development of bones, it supports mineralisation of the skeleton.

RECOMMENDED DOSAGE

In order to achieve a maximal effect, it is recommended to administer the preparation at least for a period of 30 days, best before the morning feeding or together with feeding. The product may be administered throughout the whole year; we recommend at least one to two 30-day cycles a year depending on the exertion of the horse.

system (sport horses in the period of preparation for a race, labour horses and older horses). It these groups it is possible to administer the product during the first ten days with the dose of 50 ml (or 30 ml in a pony).

Regular administration of HYALCHONDRO EC plus improves mobilisation and in a certain extent also relief of pain, which accompanies the diseases or degenerative changes of the locomotor system of the horses. The regeneration process of the locomotor system and simultaneous elimination of arthritic pain takes place individually, apart from others also in relation to the extent of the damage, physical condition and age of the animal. As early as after a four-week administration of the preparation, there is an evident improvement of the complaints and relief of pain. In case of recurrent complaints it is recommended to restart the administration of the preparation after a 3 – 4-month interruption.

The production process must be observed during the production of HYALCHONDRO EC plus and the quality of initial raw material must be carefully monitored.

The production process is regularly monitored by the producer as well as by the Institute for control of veterinary biological and medicaments.

OSTEOARTHRITIS

This is an inflammatory chronic degenerative disorder of joints resulting in permanent damage to the cartilage. Osteoarthritis is a disease, which could develop after an injury or at higher age. There are cracks that develop in the cartilage, cartilage is getting thinner and loses its elasticity. Inflammatory processes in the joint result in a permanent deformation of cartilages and restrict range of motion in a joint.

The signs of osteoarthritis include presence of osteophytes, cartilage protrusions, which ossify over time (change to a bone). These protrusions cause pressure on the joint capsule and increase pain. The building units of joint cartilage are collagen fibres, which enable movements without any restrictions. In the case of osteoarthritis, collagen fibres do not work as they should resulting in undesirable friction. The progress of the disease could result in a stage, in which the joint becomes stiff.

Osteoarthritis could affect any joint. Disease of a joint unambiguously influences the sport results and also general performance of the horses and could result even in an early termination of the career of the horses.

Symptoms

The main symptoms of the disease include joint swelling and increased temperature in the area of the affected joint. The horse in this case could be sensitive to pressure and could refuse mobilisation. It is recommended to arrange the animal mobilisation despite it is not willing to move and place the horse to a smaller paddock, so that it was forced to walk.

This ensures that joints were continuously moving otherwise there would be a risk of stiffness. The horse is significantly limping at the advanced stages, especially after a longer standing. Limping is improving with motion, however, the joint could still remain hard and enlarged.

Causes

Osteoarthritis is mostly diagnosed in older horses and in case of longer lasting strain of the joint apparatus. Especially during training in racing and sport breeds.

Risk factors, which influence the development of osteoarthritis:

- Higher age – small injuries of joint cartilages are accumulating during the life of the horse and could progress to osteoarthritis at higher age.
- Physical exertion – some sports expose the joints to greater stress than it is natural.
- Injury – osteoarthritis could develop also as a consequence of an injury, which was caused by an inflammation in a joint.
- Infection – open wounds near the joints could become the site of infection.

Diagnostics of the disease is possible based on the examination of the joint by palpation or by a bending test. However, for a more exact localisation of the disease, it is appropriate to use an x-ray or possibly use injection to directly inject the radioactive diagnostic substances to the joint. Osteoarthritis may be diagnosed also with arthroscopy.

Therapy

Medication from the group of non-steroid anti-inflammatory drugs (medication against inflammation), corticosteroid injections (injections are administered directly to synovial fluid in the joint), injections of hyaluronic acid, etc. are used in veterinary practise to treat osteoarthritis. However, it is more effective to prevent the development of osteoarthritis by the administration of food supplements.

An important role, mainly in prevention of the development of osteoarthritis, remain the food supplements containing chondroitin sulphate and hyaluronan – these products are called chondroprotectives. These include also our new product **HYALCHONDRO EC plus – food supplement for horses.**

