

The benefits of omega fatty acids in stallions and broodmares

Research highlights omega-3 benefits

Omega-3 fatty acids are known as essential fatty acids because they cannot be synthesized in the body and must be provided in the diet. When omega-3 fatty acids are present in adequate amounts, the following benefits have been noted by researchers.

- The omega-3 fatty acid DHA has a positive effect on both sperm output and quality; it also supports the sperm's cell membrane so it is better able to withstand cooling and freezing.
- Broodmares supplemented with the omega-3 fatty acids EPA and DHA show an earlier inflammatory response, which may be advantageous in fighting uterine infections.
- Mares consuming diets high in omega-3 have colostrum and milk with elevated levels; foals whose dams have been fed a diet rich in omega-3 have elevated serum levels of the nutrient, which results in a stronger immune system.
- Research in other female animals has shown a positive effect in increasing conception rates and reducing reproductive problems; this combined with anecdotal evidence in mares suggests supplementation of mares' diets with omega-3 may be beneficial in increasing conception rates and reducing reproductive problems.
- Studies have shown omega-3 fatty acids to be beneficial in increasing stride length, indicating a benefit in reducing joint pain and promoting joint health in older broodmares and stallions.

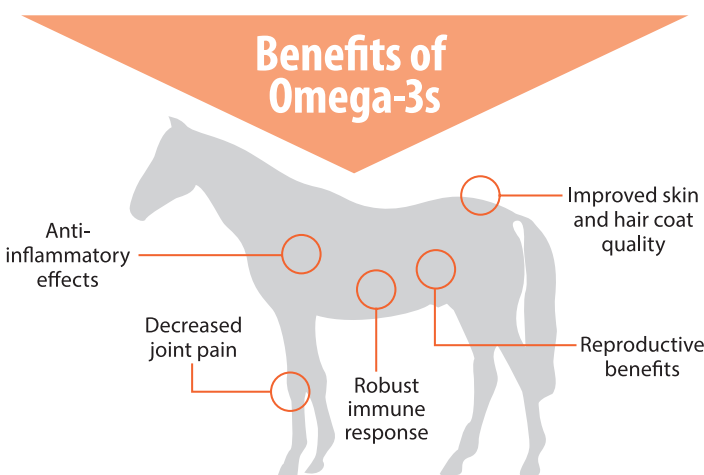


Omega fatty acids: why are they important?

Omega fatty acids are split into two categories: omega-6 and omega-3 fatty acids. Both are necessary to the wellbeing of the horse; however, it is the amount of both of these acids relative to each other that is most important for overall health. Functioning at the cellular level, omega fatty acids impact the cell membrane, thereby influencing every system in the body. When properly balanced, the two types of fatty acids work in concert to keep your horse healthy.

Omega-3 and omega-6 fatty acids are metabolized by cells in the body and used in the synthesis of hormone-like substances called prostaglandins. The primary function of these prostaglandins is the regulation of essential body functions such as blood clotting, blood pressure, immune and inflammatory response. Prostaglandins produced from the omega-6 series typically have a pro-inflammatory response and increase blood clotting, whereas those produced from the omega-3 series tend to have the opposite effect by mitigating the inflammatory response and decreasing blood clotting.

Both the omega-6 and omega-3 fatty acids compete for the same enzymes in the production of these prostaglandins, so it is the ratio of the omega-6 to omega-3 that has the greatest influence over inflammatory response and other vital body functions. When an abundance of omega-6 acids are consumed relative to the amount of omega-3, cells



increase the production of prostaglandins from the omega-6 series, leading to an increase in inflammation, which, over time, leads to multiple health problems.

Modern management and the effect on omega ratios

Horses evolved to exist on a grass-based diet high in omega-3 fatty acids and low in omega-6 fatty acids. In an effort to support the increasing energy demands made on modern horses, man introduced large amounts of grains into their diets. These grains, which are high in omega-6 fatty acids, throw the critical 6 to 3 ratio out of whack. Supplementing with a high-quality omega-3 fatty acid brings that ratio back into balance.

Why supplying multiple sources of omega-3 fatty acids is important

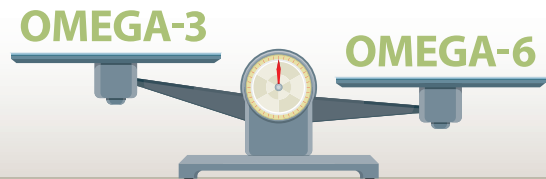
Alpha-linolenic acid is the most common omega-3 fatty acid and is found in plants. While horses generally obtain alpha-linolenic acid by eating grass and hay, flaxseed and linseed oil are the most concentrated best sources of this nutrient. The omega-3 fatty acids known as EPA and DHA have also been identified as beneficial to the horse. These are generally found in fish oils. The shorter chained alpha-linolenic acids can be converted into the longer chained EPA and DHA; however, this process is very inefficient, hence the need to provide them in the diet.

The benefits of omega-3 fatty acids to broodmares and stallions should not be dismissed. Contribute omega fatty acid supplement offers you an affordable way to include both beneficial plant and marine sources of omega-3 fatty acids into the diet.



CONTRIBUTE™ CONTAINS:

Fish oil	a source of EPA and DHA
Flaxseed oil	a source of alpha-linolenic acid
Total omega-3 fatty acids	10,780 mg per oz
Eicosapentaenoic (EPA)	3,210 mg per oz
Docosahexaenoic (DHA)	2,320 mg per oz



Contribute offers:

- Affordability and quality
- Both linoleic acid and linolenic acid, plus EPA and DHA
- Guaranteed ratio of 8:1 omega-3 to omega-6 fatty acids
- Superior palatability and stabilization
- Over 10 g of omega-3 fatty acids per ounce

Dosage and administration

- **Stallions:** 1 to 2 ounces daily, beginning just prior to breeding season and continuing throughout breeding season
- **Pregnant and nursing mares:** 1 to 2 ounces daily throughout gestations and lactation
- **Maiden and barren mares:** 1 to 2 ounces daily, beginning just prior to breeding season and continuing throughout breeding season

Contribute can be mixed into the concentrate portion of the daily ration. For best results with picky eaters, introduce slowly over a period of 5 to 7 days. Begin with a small amount and increase amount fed daily. Once acclimated, horses will readily consume Contribute.



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