

Magnesium to Relax Equine Muscles and Nervousness

Jini April 7, 2015 For Newbies



Magnesium is another one of those minerals that is usually in crazy low amounts in horse feeds and supplements.

But since magnesium is the best way to relax both the horse's muscles and nervous system, it should absolutely be a staple daily supplement. Don't forget that the heart is also a muscle. And the intestines (colic anyone?) are composed of visceral muscle cells that contract and move food along. The last thing you want is to have any of these important muscles cramping or spasming from magnesium deficiency. Magnesium is also really important for pregnant mares – because the uterus is one big muscle!

Magnesium Not Well Absorbed

The esteemed PhD equine nutritionist, Dr. Juliet M. Getty says that many horses do not receive enough magnesium from pasture or hay, because it is not well absorbed. The medicinal dose (to address deficiency) is 10,000 mg/day (for a 1000 lb horse). And Dr. Getty recommends 5000 mg/day as a maintenance dose.

A Note About Supplement Labeling

If you read through the comments section below, you'll see I had quite a bit of back-and-forth on this issue with an equine professional until finally realizing that supplement labeling regulations are very different for animal vs human supplements! So that bag of bulk magnesium oxide at your local feed store, may be labeled (for example) as: Magnesium Oxide.....54%.

Now here's the tricky thing, that supplement may actually contain 93% magnesium oxide, but the label claim is only referring to the amount of elemental magnesium – not the oxide part of the compound. I have no idea why they have regulated this way as it would be far less confusing to follow the human format, or, to list as:

Magnesium oxide.....93%
– Magnesium.....54%
– Oxide.....39%.

But as you can see from [this feed-grade spec sheet](#) – that is the way it is regulated, and the remaining 7% is composed of calcium oxide, silica oxide and iron oxide.

Best Form & Dosage of Magnesium for Horses

Magnesium oxide is the form of magnesium usually given to horses and livestock – probably because it is usually the cheapest form and it has a very neutral taste. Magnesium citrate has a much better absorption rate than magnesium oxide, but it is super tart in flavor, so many animals won't eat it. Magnesium carbonate has a decent absorption rate and is also fairly neutral in taste.

You can either get [Magnesium Oxide from Dr. Getty's](#) supplement store (free shipping in continental USA) where 1 tablespoon = 10,000 mg. So the maintenance dose for horses would be half a tablespoon (half a scoop – 5,000 mg) per day. A 5-pound bag would give you 454 servings. That works out to a cost of \$0.08 per serving – or **\$37.95 for 454 servings**.

Or you can purchase [Bulk Supplements Magnesium Carbonate](#) where 1 level tsp = 698 mg. So you would give about 7 and 1/6 level teaspoons per day for a 5000 mg/day maintenance dosage. That works out to a cost of \$0.42 per serving – or **\$83.44 for 200 servings (4 bottles)**.

Many horses don't like loose powders – and possibly cannot eat much powder unless they're willing to lick it – so I sprinkle magnesium and any other supplements I'm giving in powder form onto their feed or veggies, and then pour flax or Udo's oil over top of the powders to make it easier to eat.

Magnesium Horse Cookies!

If you don't want to go the powder route, you could also bake the magnesium into low sugar horse cookies – it is heat resistant. Or make raw horse cookies from ground flax, shredded carrots, oats and some hemp oil and molasses to bind them together. The molasses would also disguise the taste of magnesium.

I don't recommend spraying or rubbing [magnesium oil](#) on the horse, because it is very itchy as it dries.

Dose to Bowel Tolerance

Just like in humans, you will know quickly if you are giving too much magnesium: your horse's stool will get mushy or runny. In that case, cut back on the dosage. Since different forms of magnesium have different absorption rates, dosing to bowel tolerance is the best way to measure how much to give.

Here's what "dosing to bowel tolerance" looks like in reality: We have been dosing 3 different horses/different breeds with the NOW Foods pure Mag Oxide and I can tell you that the Registered Quarter Horse hits bowel tolerance at just under 1 tsp. (2500 mg) as does the Arab/Andalusian cross. The purebred Andalusian does well on a rounded teaspoon. (~ 3300 mg), but any more than that and her stool is falling apart on the manure fork, and at 1 and 3/4 tsp. (5,000 mg) she's got runny/mushy poop.

So although Getty's recommendation is for 5,000 mg per horse, depending on your horse's diet and unique body, you would need to adjust for the ideal amount for your horse.

Keep An Eye on Calcium Levels Too

The only consideration when supplementing with magnesium for horses, is to make sure that calcium levels are higher than magnesium. This is the reverse of the necessary ratio for humans. In humans, magnesium should be at a 2:1 ratio with calcium. But for horses, the ratio is reversed with calcium 2:1 to magnesium. However, [Dr. Getty](#) says that if the horse is eating hay or on pasture, then the calcium from hay or grass is likely sufficient to supplement with magnesium at the recommended dosage.

Having done a lot of research into the importance of [magnesium for humans](#), I suspect that its importance for equines is similarly underestimated and misunderstood. And this is probably the reason magnesium levels are so pitifully low in feed and combination minerals supplements. Until equine supplement manufacturers catch on, this is one very important mineral that you'll need to dose individually (in addition to your regular feed or supplements).



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