

Ask the Vet with Dr. Steve Fisch, DVM

Photo by Steve Heuertz



Doc, I breed and train AQHA race horses and barrel horses. Do I need to be doing anything different in the way I select, care for and train these two different but similar athletes? Do I need to feed them differently? Do I get them physically fit the same way? Are they different in the injuries they get in their competitions? What is the best way to keep them sound?

Those are all very good questions. The basic theory behind the selection process, nutrition program and training program is close to the same for all equine athletes. Most of the differences come in the training regimens. There might be some differences in the nutrition program once the horse goes into training.

As we have discussed before, soundness starts at conception. No matter what discipline the equine athlete, or any athlete for that matter, competes in genetics plays a huge part in future soundness. If you have an ex race horse mare or stallion that successfully ran in only a few races, then the likely hood that their offspring will compete successfully for a long time is less than when you breed two athletes that competed well over a few or more years. The same holds true for barrel horses, western pleasure horses, jumpers, hunters, cutters and all other disciplines. If we choose soundness as one of our major criteria when breeding horses we will end up with sounder horses. This is related to the coefficient of genetic heritability. In other words, the more pressure we put on a certain trait the more that trait shows up in the horse and other traits show up to a lesser degree. That is why dairy cows have large mammary glands and smaller muscle mass and beef cows have more muscle mass and smaller mammary glands. They were selected for different genetic traits.

The same thing happens when breeding horses. If we select our breeding stock solely on speed and don't put any weight on soundness, we will end up with very fast horses that don't stay sound very long. The breeding stock to look for is mares and stallions that performed well at the level you want to perform and they have a history of performing well at that level for a long period of time. Therefore barrel horses and race horses are basically same in the genetic election process as far as soundness goes. Mothering ability, fertility, trainability, intelligence and conformation are all traits that have a high degree of heritability. Therefore choose your breeding stock carefully because they will influence your athletes for decades to come.

Nutrition is another important factor that begins at conception. A pregnant mare has certain nutritional requirements beginning early in her pregnancy. Some breeders think that just because a mare is in good flesh that the fetus is receiving all the nutrition that it needs. Under most conditions, the mare's body is geared to take care of the fetus first and the mare second but there is definitely a difference in the survival rate of foals from well nourished mares and those born to mares that were not fed properly. These nutritional deficits may not

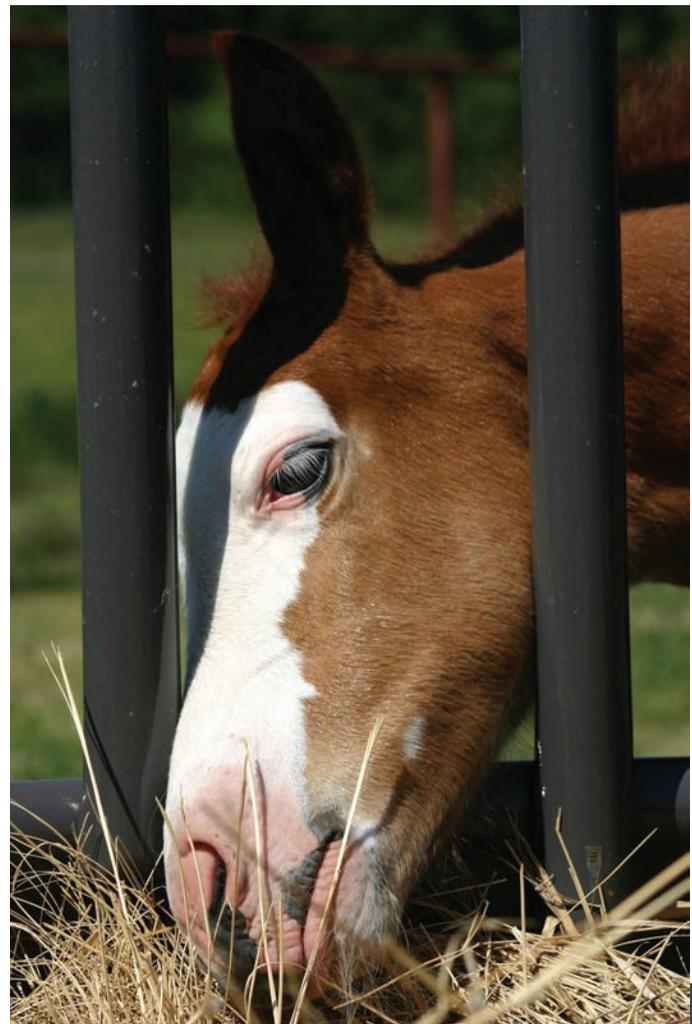


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even show up early in life but they can show up later as unsoundness. Nutrition is not as simple or as complicated as it is sometimes made out to be. A balanced diet does not consist of equal parts sweet feed and pellets of a certain % protein feed. A balanced diet also does not consist of a balanced feed with several various supplements added that result in a balanced feed becoming unbalanced. The nutrition program will depend partly on where in the country horses are being bred and raised. Many aspects have to be considered such as calcium and phosphorous ratios and amounts, micronutrients, macronutrients, and energy and protein levels. More is not always better.

Nutrition for the young horse between birth and the two-year old year is very important. The bones, ligaments and tendons are being formed during that time. Proper levels of all the nutrients stated above are equally important to the young horse as far as development goes. The exact levels will vary from horse to horse and each young horse should be evaluated weekly to make sure it is not developing any developmental orthopedic disease or angular limb deformities. If caught early these problems can be treated conservatively many times. Otherwise they become surgery candidates or they become untreatable. This results in a poorer quality of life for the horse and/or added expense for the owner. It is important to consult with an equine veterinarian who is knowledgeable in equine nutrition before problems present themselves. Many times when you can visibly see the problem, it is too late. This is one area where an ounce of prevention is worth a pound of cure.

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Another important aspect of raising horses is that the bones, ligaments and tendons will form stronger and last longer if the baby is raised outside. It has been shown with research that foals that are kept in a stall for even a few weeks have a higher rate of bone, ligament and tendon problems later in life. Of course sometimes we have to keep them in for various reasons but their physical development is best when they can run and play in large pastures while growing up.

Once an athlete of any age is in training the goal for that individual must be decided upon. The initial exercise routine is basically the same for all disciplines. The young horse must get used to carrying his rider. This requires a new set of muscles and different ligament and tendon strength. This strength won't come overnight. We must be careful not to undertrain or overtrain for any discipline. Undertraining results in a horse that is set up for injuries during competition. Overtraining wears out our athletes before they ever get started. Many injuries are created because of repetitive wear and tear on ligaments, tendons and bones.

Naturally a horse running 440 yards needs to develop his ligaments, tendons and bones to a different degree than a horse racing 250 yards or racing around a barrel pattern. Development of different muscle fibers are required as more long slow twitch muscle fibers for the 300 yard specialist and even more with the barrel horse. The 440 yard specialist needs more of the longer slower twitch fibers to be blended with his short slow twitch fibers so that he gets out the gate quickly but has the ability to give it his maximum effort for 440 yards. Each program is then tailored to the individual horse.

I hope gives you some general answers and theory to ponder for your questions. There are many details that make the difference between winning and performing at the very best level and being an also-ran. If we take care of all the small details that we can then at least we know our equine athletes were given the best care possible and they were given every thing they needed to perform at their highest level and at the same time remain sound and healthy. Anything less than taking care of all the details is a disservice to our equine friends. They deserve the very best we have to offer and with today's science and knowledge in equine sports medicine and nutrition, we have a lot to offer.

Ask The Vet

We would like to help you get your horse health questions answered by a knowledgeable equine veterinarian.

Submit your questions to us via email, we will present them to a qualified veterinarian that specializes in equine health

and then publish the question along with the vet's response in a future issue of The Horse Resource.

Ask away..... Send questions to us at:

thehorseresource@msn.com Subject line: "Ask the Vet"

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