

“Show me your horse and I will tell you who you are.” – English Proverb

CONDITIONING THE EQUINE ATHLETE

by Amy Jergens, DVM

This is not an all-inclusive discussion of how to rehabilitate your horse from a specific injury or how to condition a young horse for the first time. That discussion and those recommendations are best supplied by your attending veterinarian.

Western performance sports tend to have an annual cycle of competition and an off-season. The off-season gives the horse a chance to recover mentally and physically from the stresses of traveling and competing. If your horse is free from injury, he will benefit from a period of active rest during the off-season. An example of active rest would involve riding 2-3 times/week. Strive for peak condition during times of the competitive season. After competition, reduce your horse's workload 20% for 3-5 days.

This is a simple, straightforward roadmap for an athlete that has already been conditioned for competition. This may be a horse that is returning to work after the off season or a horse that has completed a rehabilitation program for an injury. This program is based on the assumption that the horse is starting with some form of fitness.

What Now?

The best place to start when you are developing a conditioning program is to plan out your program on paper. Determine the first date of competition for the year and work backwards from there. You will want a minimum of 90 days. You should also add a couple of extra weeks to your plan to allow for a minor setback.

Begin with long, slow distance work. Get your horse fit enough to work 45 minutes at a walk, jog, and lope (e.g., a 2-3 min. lope) with a heart rate less than 150bpm. Too much long, slow distance work takes the edge off a horse's speed and acceleration, but too little predisposes the horse to musculoskeletal injuries later in the conditioning program. It is important to increase the duration of the workout before you increase the intensity. Following these guidelines will help you minimize injury.

Another important method to minimize injury is to know your horse. Riders and trainers should be familiar with the legs of every horse in their care. They should be able to recognize their horse's legs blindfolded. Make a note of any swelling, heat, or pain on palpation.

The Plan

Western performance horses are asked to accelerate and decelerate rapidly. They are also asked to turn quickly and change leads smoothly. Preparing a horse for this type of competition involves conditioning and schooling. The goal is to produce a horse that is physically fit and prepared for the demands of competition. Genetics play a significant role in running fast, but conditioning enables these athletes to run faster.

Conditioning – Getting Physically Fit

It is important to create enough stress to the musculoskeletal system to cause adaptation. Too much stress leads to overloading/injury. Choose drills that mimic the sport. Focus on cardiovascular conditioning 3 times per week early in the program. Then, change to conditioning twice weekly.

Schooling – Developing Discipline and Neuromuscular Coordination

Between conditioning, school the horse 45-60 minutes at low intensity exercise 2-3 times/week. This will develop the horse's neuromuscular coordination and mental discipline.

*A combined approach of conditioning and schooling a total of 5 times/week will produce a horse that is physically fit and mentally fresh.

Surface

It is important to condition a horse on a similar surface to that of competition. Avoid footing that is too soft or too hard.

Swimming has become a popular method to develop cardiovascular and muscular fitness. Swimming *is not* effective for developing or maintaining the strength of the supporting structures in the limbs. What this means is that bone, ligaments, and tendons can undergo de-training when load is no longer applied to them. Load is necessary to strengthen these structures and to maintain their strength.

Swimming *is* beneficial when a horse has an injury that precludes ridden exercise. Swimming is contraindicated in some cases. Consult with your attending veterinarian to determine if swimming is right for your horse.

Continue...

Daily workout – (Warm-Up, Workout, Warm-Down, and Cool Out)

The daily workout should consist of a 5-minute warm up, the workout, a 10-minute warm down, and cooling the horse out. Palpate your horse's legs before and after every workout. You should be able to recognize your horse's legs blindfolded.

Warm-Up – (5 minutes)

A 5-minute warm up gives your horse muscular power by enabling his aerobic metabolism to function at full capacity. This will delay fatigue. During the warm up, the temperature of your horse's soft tissues increase and this makes them more pliable and reduces the risk of injury.

Workout – (30 minutes of Conditioning/Schooling)

A conditioning workout involves progressively increasing the speed (i.e., intensity) until you can perform sprinting drills. It is important to increase the duration of the workout before increasing the intensity to minimize injury. A low intensity workout in a horse generally means that their heart rate is less than 150bpm. Don't do the speed work all at once. Break it up into 3 sets. An example set would include a 2-minute walk, a 5-minute trot, and a 3-minute lope. Be sure your lope position in the saddle is correct (ride with a little shorter stirrup). Then, repeat. Horses can tolerate more speed exercise with short walk/trot intervals between them. You will need to lope 12 minutes (broken into three 4-minute sets) before you are ready for speed work.

A schooling workout should include suppling exercises such as: turns, circles, serpentines, leg yields, smaller circles, lateral movements, leg yielding, shoulder in/out, and haunches in/out. Long and low exercise is also beneficial two times per week.

Warm-Down (10 minutes)

The warm-down should include trotting for 5 minutes followed by walking on a long rein for 5 minutes. The brief period of jogging removes lactate from the muscle more efficiently than walking alone.

Cool Out

The goal of the cool down is to put the horse away cool and dry. It is unrealistic to expect a horse to cool out under saddle during hot weather. You must remove the tack and cool the horse with cool water over the neck, chest, belly, and inside of the legs. The neck and inside of the legs contain large veins. Cool water applied to these areas will increase the transfer of heat. Afterward, stand the horse in a shaded area with a breeze/fan.

Withhold feed until your horse's temperature is less than 102.2. His temperature, pulse, and respiration should return to his normal baseline within 7 minutes after the workout. Hay is the safest feed to offer initially. Once your horse has recovered from his workout, you can offer concentrates. Focus on feeding 1-1.5% of your horse's body weight in hay. Feed concentrates to maintain body weight. During hot weather, offer 1-2 tablespoons of electrolytes/day and free choice fresh water. An example electrolyte preparation would be: 3 parts table salt with 1 part lit salt.

Competition

After one or two performances, your horse will become more fit. This means your horse will not need as much conditioning work during the competitive season. The conditioning process will create a capable, enthusiastic partner and a sound horse. Avoid a preventable injury by taking the time to do it right from the beginning. Competing every other weekend is acceptable at lower levels, but be sure to allow more time for recovery between competitions as you increase the level of performance. Training plans must adjust to the changing needs of the athlete. This plan is simply a place to start.



About the author: Dr. Amy Jergens graduated from the University of Illinois – College of Veterinary Medicine in 2000. She moved to Kentucky for an internship, followed by Orthopedic Fellowship with Dr. Larry Bramlage at Rood and Riddle Equine Hospital, which is one of the most prestigious equine hospitals in North America. In 2002, Peterson and Smith Equine Hospital welcomed Dr. Jergens for her Surgical Residency in Ocala, Florida. Following her residency, Dr. Jergens joined the University of Minnesota – Equine Center as a Professor of Equine Sports Medicine & Surgery from 2005-2007. Dr. Jergens is a diplomat of the American College of Veterinary Surgeons (DACVS). She now owns a full-service Equine Sports Medicine, Surgery and Dental Service in Northern Colorado.