

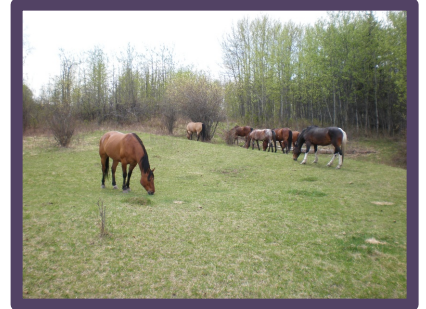
PERSONALIZING A CONDITIONING PROGRAM.....Part II

by Jen Osgood

About Jen Osgood:

I am the owner and trainer at the Montacre Farms. I have had multiple rodeo placings and 1D/2D wins. I specialize in barrel horses and cutting horses. Also, I hold a diploma in Equine Sciences (nutrition, growth and development, exercise physiology, anatomy, health and disease, and behavior), and I have a certificate in Equine Business from the University of Guelph in Ontario.

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Last month I talked about conditioning your performance horses and keeping them in the best shape possible. This month I will explain in more detail the difference between anaerobic and aerobic conditioning as well as showing you an example of a conditioning program that can be used to suit each individual horse that you ride.

I will start by explaining the difference in anaerobic and aerobic conditioning:

ANAEROBIC

Anaerobic metabolism is primarily important during rapid acceleration or deceleration, sprinting, jumping and abrupt changes of direction. Anaerobic conditioning implies a high intensity workload that makes demands beyond the horse's current aerobic capacity. This type of exercise is introduced in the later stages of the conditioning program, after establishing an aerobic base and strengthening the musculoskeletal tissues. In high intensity sports with duration of less than 20 seconds (barrel racing) anaerobic alactic metabolism supplies a large proportion of the energy and this system is relatively unresponsive to conditioning. Even so the conditioning exercises should mimic the speed and movements of the sport to ensure that the muscles train and improve their capacity for fast powerful contractions.

AEROBIC

Aerobic conditioning involves working the horse at an intensity that is within the horse's current aerobic capacity. Although we don't really know when the horse crosses the anaerobic threshold a reasonable estimate is made based on knowledge of the conditioning history of that particular horse. The objective of aerobic conditioning is to increase the aerobic endurance and/or the aerobic capacity according to the needs of the sport. Aerobic endurance imparts the ability to exercise for prolonged periods at a low to moderate intensity. The longer the duration of the competitive activity the greater the need for aerobic endurance. The aerobic capacity describes the intensity of exercise that can be performed before crossing the anaerobic threshold. A large aerobic capacity reduces the horse's reliance on anaerobic metabolism and delays the onset of fatigue due to lactate accumulation which is most beneficial in sports that include periods of high intensity exercise. Endurance racing is an example of a sport that relies heavily on aerobic conditioning.

Now that we have that out of the way let's talk about a conditioning program. There are so many different equine sports and each one needs a different conditioning program but since we are barrel racers (sprinting sport) let's focus on that. Here is a conditioning program that can be geared towards young 3 year olds getting ready for 4 year old futurities. This program however can be used to get a seasoned horse back into shape for rodeo/show season or to rehab an injured horse back to top form. This can all be done by tweaking the program slightly and monitoring the horse closely for any soreness, or overloading of joints. Different exercises especially for rehabbing should be used, such as swimming or water treadmills to reduce further injury.

Continued.....

One thing to **ALWAYS** remember is that.... **"Every horse must be treated as an individual."** By treating all horses the **same** the likelihood of injury increases. I am giving you guidelines in this article but you must remember to monitor your horses closely and change things up when and where each horse needs it.

3 year old in training:

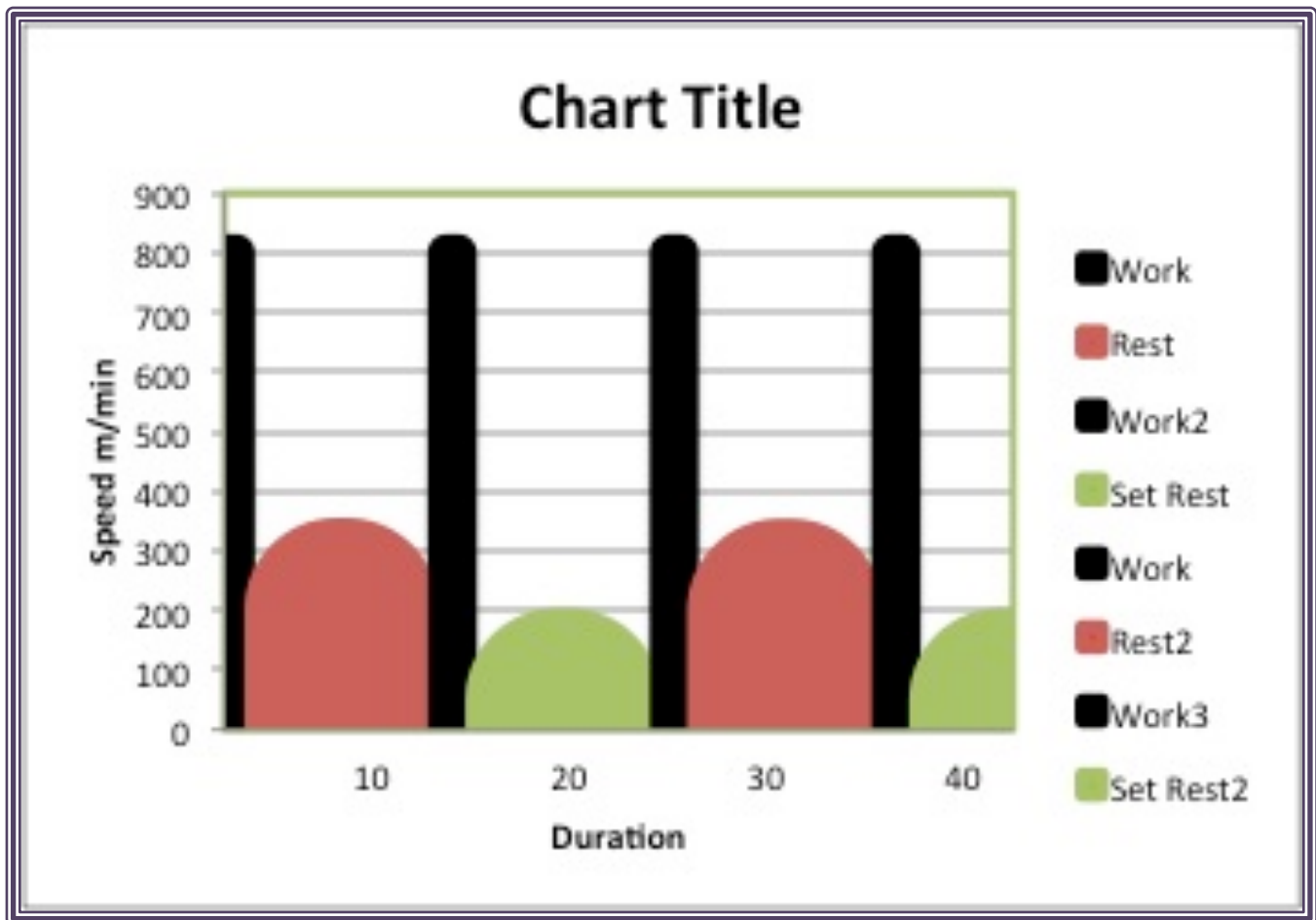
The first 3 years of a horse's life- particularly the first 2 years- are a time of great change and development in his locomotor system particularly muscles, tendons and bones. Our young horses should be started on a conditioning program as soon as they are comfortable bearing the weight of a rider. In the first year of riding you will want to do the majority of your conditioning as long slow distance (LSD). The workload **MUST** increase gradually, and involves walking trotting and slow loping and should incorporate arena work as well as trail riding. This long slow distance work should be done over a period of 3-12 months depending on the overall health and fitness as well as the end goals for each individual horse. Here is a quick example of a program for a 2 year old just started under saddle:

- 10-15 minutes of mostly walking and some trotting every other day (3-4 days/week)
- Progressive loading is accomplished through a weekly increase in either duration or intensity
- Intensity is increased by incorporating longer periods of trotting with some loping but try to keep the heart rate below 140 beats/min.
- Duration is increased by 5 mins. up to a maximum of 60 mins.
- Incorporate gentle gradients (hills) later in the program

The objective of this LSD phase is to prepare the horse to cope with 45-60 mins. of easy exercise (walk, trot, slow lope) at average speed. When this stage is reached and can be done relatively easily, then it is time to re-evaluate the horse and his competitive path. ** Remember in between conditioning days, schooling either on the pattern or off should be done at a slow pace.**

For a 3 year old who has gone through the LSD phase and is ready to start running a pattern and on the path to 4 year old futurities we will need to change the routine to reflect Anaerobic interval training. Here is an example:

- Work-speed = 800m/min
- Duration = 1 min
- Rest = trot-5mins
- Works/set = 2
- Work:Rest ratio = 1:5
- Set rest = trot/walk 15 mins
- Number of sets = 2
- Total work distance = 3200m
- Total work duration = 4 mins



Here is a chart for more of a visible reference

On days between conditioning workouts the horse is schooled at a low intensity for 45-60 minutes. For barrel horses to help with strength training (remember in the last article we talked about cardiovascular conditioning, strength training, and suppl ing) such as turning and circle drills are incorporated later in the conditioning program. Loping full circles is increased gradually, then loping speed increases and finally the radius of the turning circle is decreased. It is important to remember however that it takes at least a year for the ligaments and tendons to strengthen in response to this type of conditioning, so the workload must be increase very gradually. Suppling is accomplished during warm up but picking up the horse's shoulders moving them in and out and moving the hips in and out with leg yields etc. And finally stretching should be done every day and is particularly effective post workout.

Important things to always keep in mind are that every horse is an individual. Always listen to your horses, change things as need, palpate their legs to keep one step ahead of any injuries/overloading that may occur, especially in young growing horses. If you find that specific things are not working in your program such as your horse's hind end is weaker, focus more on the parts that need work, like a 1:2 ratio for the weaker side. Feed accordingly, competition horses need more energy and therefore more carbs. This will create you a more balanced, healthier, stronger individual who will be in the best physical condition possible.

JEN