

Controlled Exercise Strategies

Controlled exercise is the basis of preparation for athletic competition and for rehabilitation. The incidence of athletic injury is directly related to fatigue. Fatigue can only be prevented (delayed) with appropriate physical conditioning. The most effective preventive measure for injury is adequate conditioning. Conditioning strategies are also the basis of rehabilitation.

Strategy for Basic Conditioning

Foundation is necessary for all successful conditioning strategies. In the simplest terms you are getting in shape so you can get in shape. Of all the errors that are made in conditioning horses, failure to establish a firm foundation is the most unforgiving. It will have a detrimental influence regardless of discipline. Sadly, foundation is often neglected or deemphasized because it is time consuming and therefore expensive. Foundation is a concept that varies little between equine disciplines. The goal is to upgrade the musculoskeletal, cardiovascular, nervous, and heat regulatory systems so they can more easily adjust to more advanced conditioning strategies. Foundation avoids the sore muscles, joints, and bones and mental dullness that can result from advancing to rapidly into advanced conditioning strategies. Genetic potential will determine the rate of progression through a foundation strategy and exceptional performers are identified and individuals with little athletic potential are eliminated. A skillful trainer can identify this difference early in the foundation process.

12 Week Foundation Strategy – a guide not a gospel

Note – there are countless mental issues that may be the determining factor in the successful completion of the foundation strategy.

Level One

Week 1 – Goal: Make Friends with your Horse

Trainers must determine the kind of mental and emotional characteristics of the horse establish a relationship with it. Good trainers rely on experience and instinct and know how hard to advance a horse into a conditioning strategy. Basic necessary tasks are learned and desensitization is emphasized.

Week 2 – Goal: Start Controlled Exercise and Continue to Build Confidence

An appropriate exercise rider is ideally of medium or below average height, 165 lbs maximum, and excellent horsemanship skills. Ridden exercise is begun using two gaits: the halt and the walk. Accepting the weight of a rider is a physical effort that is often overlooked. Therefore a clean and controlled mount and dismount is essential. Walking should be measured in distance and not time. Most experienced exercise riders have a clock in their head but times and distances should always be recorded. For an unfit horse on the first day of ridden exercise walking exercise should not exceed two miles over flat even ground. An alternate day strategy for ridden

exercise is important. The “day off” is used to work on mental issues and to increase the confidence level of the horse.

Week 3 – Goal: Continue to use the walk and work on confidence – keep the horse happy

Increase the distance by 1/3 and keep the speed the same and continue to work on any confidence issues that may have been recognized.

Level Two

Week 4: Walking is continued, Jogging is added to the routine, confidence is emphasized and happiness or mental stability of the horse is evaluated

Walk 4 miles every other day. Jogging is added in the middle of the routine – walk 2 miles, jog 1 mile, walk 2 miles

This might be the time to start training with another horse because most horses train better in the company of another horse. As training becomes longer and faster confidence issues become more apparent and its best to prevent them rather than try to “fix” them later.

Week 5: Double the jogging distance keep the walking distance the same

Walk 2 miles, jog 2 miles, walk 2 miles – Walking primarily increases muscular strength. Jogging stresses the cardiovascular, respiratory, thermoregulatory, and nervous systems.

Week 6-8: Introduce hill work, increase jogging distance, and vary training locations if possible

Hills are designed to increase musculoskeletal strength and jogging is increased one mile/week. At the end of this phase the horse will do 2 miles of hill work (at the walk), 5 miles of jogging, and 2 miles of walking. At the end of this time the horse should be able to jog 5 miles over flat ground with no noticeable signs of fatigue. If the horse seems dull or listless during the scheduled work, two days “off” may be required between works to avoid overtraining.

Level Three

Week 9 Goal: Introduce exercise at the gallop, continue jog miles, and work on confidence

Jog miles are alternated with 1/8 miles of gallop for a total five repetitions.

Weeks 10-12

Increase the length of the gallops by 1/8 of a mile each week. At the end of this phase the horse will be doing ½ mile jogs alternated with ½ mile gallops for a total for a total of five miles. The pulse of the horse should return to 60 beats/min within 15 minutes after completion of the work.

Strategy for Conditioning to Begin Competition –Advanced Conditioning

Strength, speed, stamina, and plyometrics are the fundamental physical requirements of all athletics. Different disciplines require different emphasis on these requirements.

Strength – Has been recognized since the beginning of time as an important element of athletic conditioning. By definition strength is the maximum force a muscle can generate at a given velocity. Strength is recognized as an important component of injury prevention. This applies to new injuries and the recurrence of a rehabilitating injury. Put in simplest terms – a strong athlete is a durable athlete. Linear periodization is a training strategy that has been used in human strength training but has not been implemented in conditioning horses. In this conditioning strategy high volume low intensity exercise is gradually replaced by low volume high intensity exercise. It is harder to design linearly periodized strength strategies for horses because horses can't "lift weights" in the traditional sense. Strength training modalities for horses include hill repeats, steps, and sand.

Hills – Safe and effective with a linear periodization strategy. Advantage of hill work is that it can be carefully controlled in terms of incline, speed, number of repetitions, and distance. As strength increases all of these can be increased in a periodized manner i.e. fewer repetitions of longer steeper hills at a faster pace with less rest in between reps (hills).

Steps – More advanced than hill work because they do not allow for shortening of the stride with the onset of fatigue. Steps are easier to periodize than hills because it's easier to count repetitions.

Sand - increases the exertion level at all gaits – can be periodized by increasing distance and speed.

Speed

Speed is a component of almost all equine athletic disciplines. It is determined largely by genetics and muscle physiology and cannot be improved upon to the extent of strength and stamina. Conditioning strategies can increase the ability of an athlete to perform at speed without becoming injured.

Stamina

Stamina is the ability to delay the onset of fatigue. Fatigue causes injury to diarthrodial joints due to hyperextension. Tired athletes have decreased ability to perform learned motor skills and are therefore more likely to "misstep" during a complex task or when moving over uneven terrain. Stamina is the most difficult and most time consuming aspect of physical conditioning. Distance and speed are increased alternately and a high level of stamina can take 2-3 years to develop. Ultimate stamina is strongly influence by body type and breed (genetics) but any sound horse can develop a high level of stamina with an appropriate conditioning strategy.

Plyometrics

Plyometrics is a form of conditioning that involves muscle groups to reach maximal strength as rapidly as possible. The combination of speed and strength is referred to as power. This form of athletic capability is part of all equine disciplines in varying degrees. Plyometrics should be included in all forms of equine conditioning strategies. This is a very advanced form of controlled exercise because it involves both speed and strength. It involves a forceful and precise motor act performed as rapidly as possible. The skill of the rider and motor skill of the horse are therefore essential to a successful plyometric strategy – the probability of injury increases when either is exceeded.

Maintenance of Physical Condition

Common misconception and training error – The mere act of competing in a given discipline will keep a horse fit enough to prevent overexertion and subsequent injury.

Cardiovascular fitness – Between competitions the horse must be asked to exert itself in a way that will prevent loss of cardiovascular fitness.

Strength – Strength training reduces the incidence of injury – *a strong athlete is a durable athlete.*

Speed – Speed work is essential. The horse must be asked to perform at speed between competitions. Without this stimulus the motor skills of the horse will deteriorate especially during fatigue.

Mental and Emotional aspects – Avoid producing a horse with a robot like personality that is associated with resentment and dysfunctional behavior patterns. Maintain mental alertness and enthusiasm. This is accomplished by avoiding overtraining and training in different environments.

