

THE IMPORTANCE OF PRE AND POST RIDING STRETCHES AND EXERCISES

A key element to include within all riding exercises is a warm-up and cool down section. This helps to minimise muscle stiffness and loss of range of motion, therefore, reducing the likelihood of injury to muscles and tendons. Warming-up is vital to prepare both the horse and rider physically and mentally to maximise performance.

A warm-up phase should involve the horse's joints moving through their full range of motion allowing the joint fluid to begin moving and lubricating. Warming up initially focuses on increasing the heart rate and enhancing blood flow to muscles and tissues which in turn means that oxygen can reach muscles faster. This process is aided by the contraction of the spleen which releases red blood cells which are responsible for carrying oxygen around the horse's body. This process can increase the volume of circulating red blood cells by as much as 70%, ensuring there is enough oxygen circulating to provide for the contraction-relaxation cycle which muscles function with (Wilton, 2008). A warm-up ensures the release of red blood cells is complete as there is a lag time between contraction of the spleen and start of exercise. These



warm-up effects which increase with time, have been shown to positively affect the final scores received during dressage competitions at both novice and Prix St Georges level, highlighting just how affective a warm-up can be (Murray *et al.*, 2006).

Many horses may be kept in stables throughout the day, where they have little opportunity to move around, and for those horses which are turned out for a proportion of the day, although they can move around freely, they often do so in a slow and relaxed manner. Therefore, despite a horses stabling and/or turnout routine, a warm-up is vital to be included pre workout.

Walk is a good pace to start with for the warm-up as it both mentally and physically relaxes the horse's body and loosens the joints, 5-10 minutes is recommended. If you have an older and/or arthritic horse, a prolonged walking period is advised. Just like an older human with stiff joints, it takes these types of horses just a little bit extra time to get loosened up. After a period of walk, trotting is advised as it focuses on increasing the breathing and heart rate in a gradual manner. This in turn enhances

blood circulation to the tissues and muscles whereby muscle fibres are warmed and strengthened.

It is important that the warm-up is appropriate for the type of workout which will be carried out, for example, it is advised that racehorses experience a high intensity warm up to ensure their maximum oxygen consumption rate is reached before a race begins (Makai *et al.*, 2010). On the other hand, a rider warming their horse up for show jumping or dressage may start at a lower intensity and include some lateral bending work which the horse will encounter when manoeuvring around a course or test. Lateral work includes circles, figure 8's and serpentine. This focuses on bending the horse's neck and back allowing their body to become more supple and prepared for more intense exercises which may follow. Lateral work should be introduced seamlessly into the workout after 10-15 minutes of walking and trotting, allowing all exercises to be performed with a greater strengthening and suppling effect.

Symmetry of a warm up is also an important factor to consider when warming up for any schooling or competition session. Studies have suggested show jumping horses during competition and training are warmed up predominantly on the left rein, which could in turn increase the likelihood of injury on a particular forelimb or hindlimb as muscles and joints on each side of the body are not warmed up equally (Tranquille *et al.*, 2014).

Just like warming up, cooling down is just as important to incorporate into your riding routine. Cooling down allows your horses respiration rate to gradually come back down to normal after being elevated during exercise. Walking for 15 minutes allows the heat and lactic acid which has built up in the muscles to dissipate which helps to improve the recovery time of muscles and so reduces the likelihood of developing delayed onset of muscle soreness which can be achy and painful for your horse and also affect the performance and success of your next exercise routine (Kang *et al.*, 2021).