

# EQUINE POSTURAL ASSESSMENT AND PRACTICAL APPLICATION

Recognizing asymmetry and how to address it



Presented by Inhand Equine therapy

# THEORY DISCUSSION

- \* Biomechanics of horses
- \* Exercises belonging to a type of riding
- \* Strength for sport
- \* Strength for soundness
- \* Conditioning
- \* Assessment
- \* Activations
- \* Stretching



# BIOMECHANICS OF HORSES

- \* Every horse has the same tissue
- \* Conformation allows for different levers hence creates movement patterns
- \* Functional asymmetries versus conformational asymmetries
- \* New normal



# EXERCISES BELONGING TO A TYPE OF RIDING

- \* Hear this so much
- \* Assess individual horse conformation
- \* Assess horses strength in your training
- \* Conditioning is key and most often missed



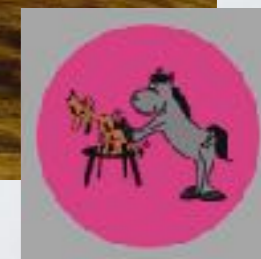
# STRENGTH FOR SPORT

- \* So many people only look at the exercise within sport
- \* Cross training
- \* Range of motion
- \* Stretching



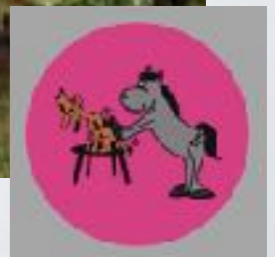
# STRENGTH FOR SOUNDNESS

- \* Please Please Please ADD
- \* Evaluation
- \* Body is plastic
- \* Nervous system awareness



# CONDITIONING

- \* Fatigue
- \* Scheduling your horses year
- \* Life is life, na naa naan na na
- \* Build back even from short breaks
- \* Consistency
- \* Horses want to please



# ASSESSMENT

- \* Organization
- \* Use prominent bones to assess
- \* Large muscle groups
- \* Use visual aids
- \* Soft eye, look for flow, balance and texture
- \* Marching gate critical for assessment.





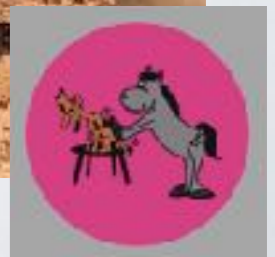
# ACTIVATIONS

- \* Style of application of the exercise
- \* Nervous system stimulation
- \* Preparing the body for the work
- \* Reawaken tissue
- \* Break normal nervous system patterning



# STRETCHING

- \* Safety both horse and human
- \* Relaxation and Range of motion
- \* Check in with your team members
- \* Improved performance
- \* Decreased warm up time so energy is conserved for sport
- \* Decreases muscle stiffness and soreness post workout. (DOMS)



# STRETCHING

- \* Mechanics of stretching
  - \* Horse must be warm!
  - \* Ensure- footing, square horse, other safety concerns, relaxed state
  - \* Neutral
  - \* stretch reflex and bounce to release tension
  - \* Apply stretch minimum of 2x
  - \* Only on professional advice would we stretch asymmetrically
  - \* Hold times
  - \* Speed of stretch



# ASSESSMENT

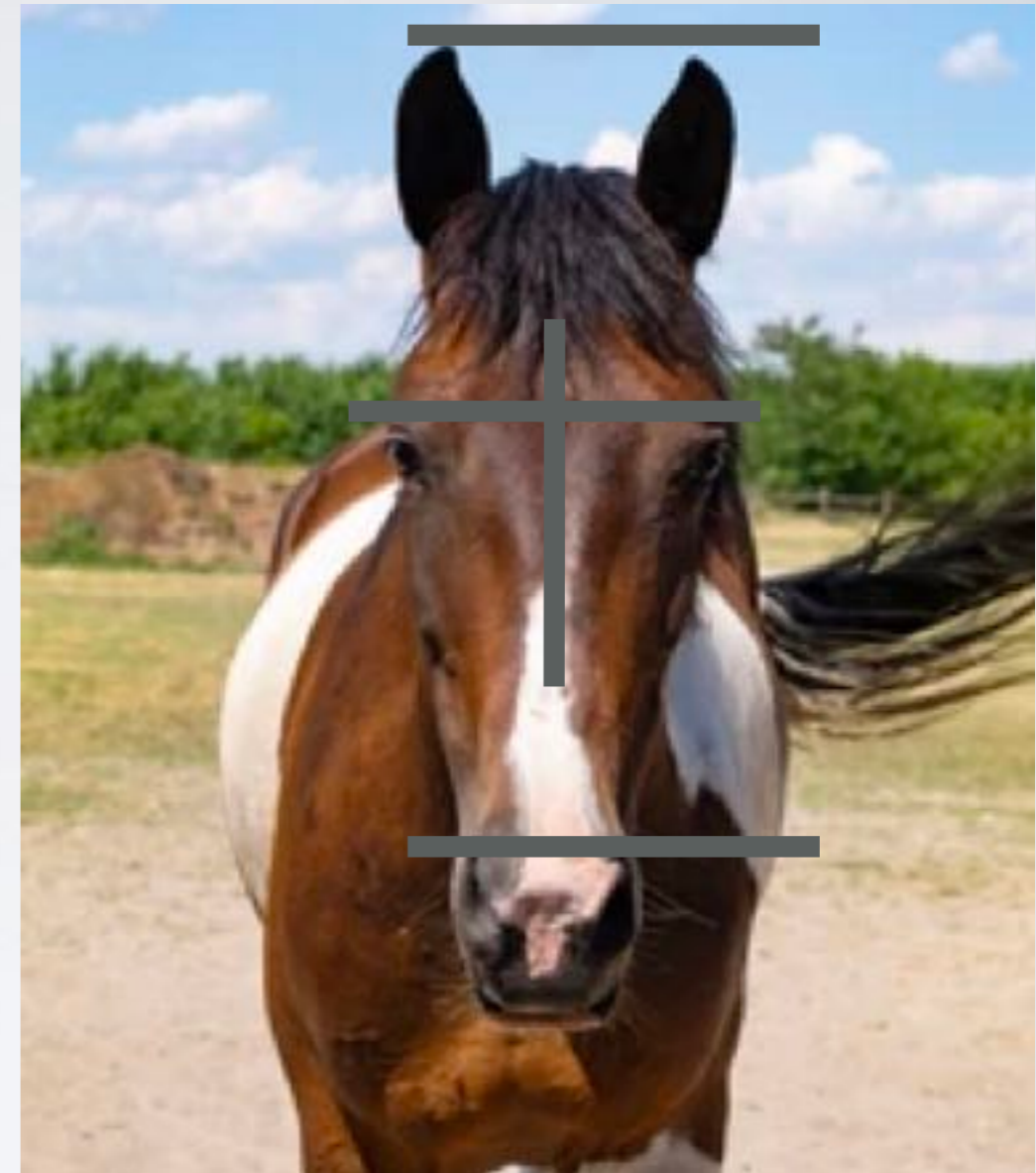
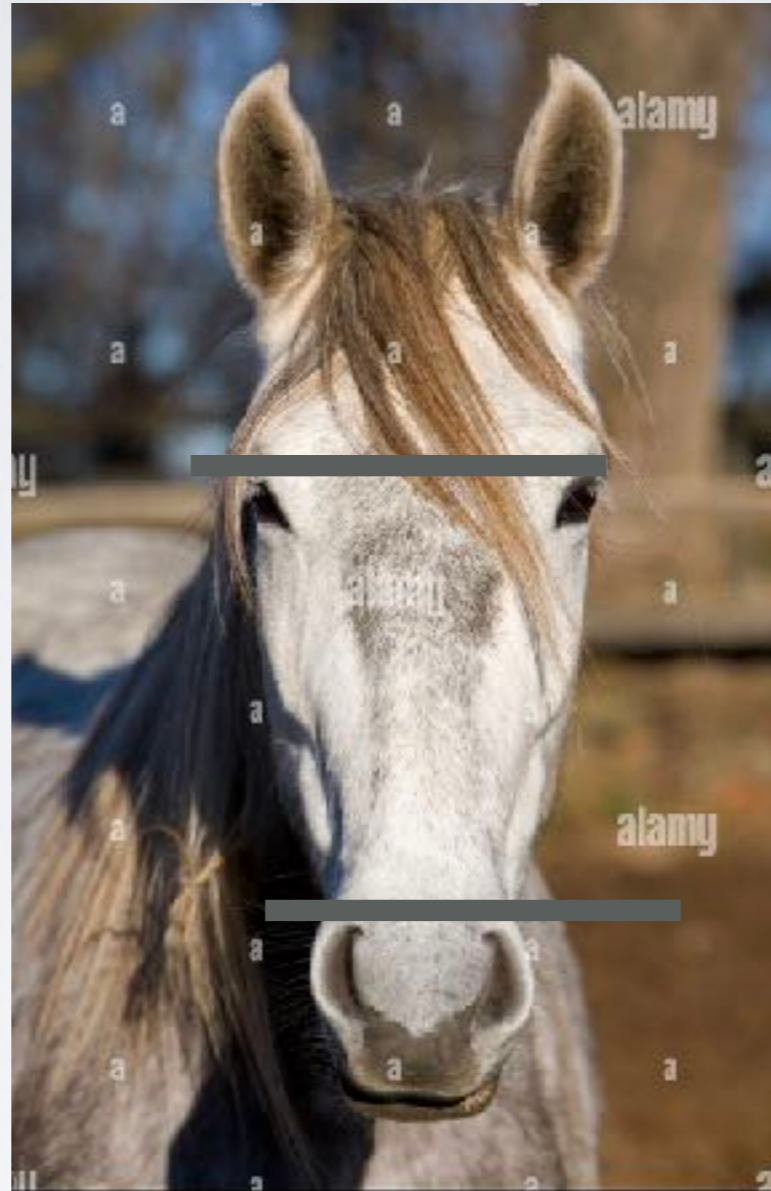
- \* Head assessment

- \* ears

- \* eyes

- \* nostrils

- \* general



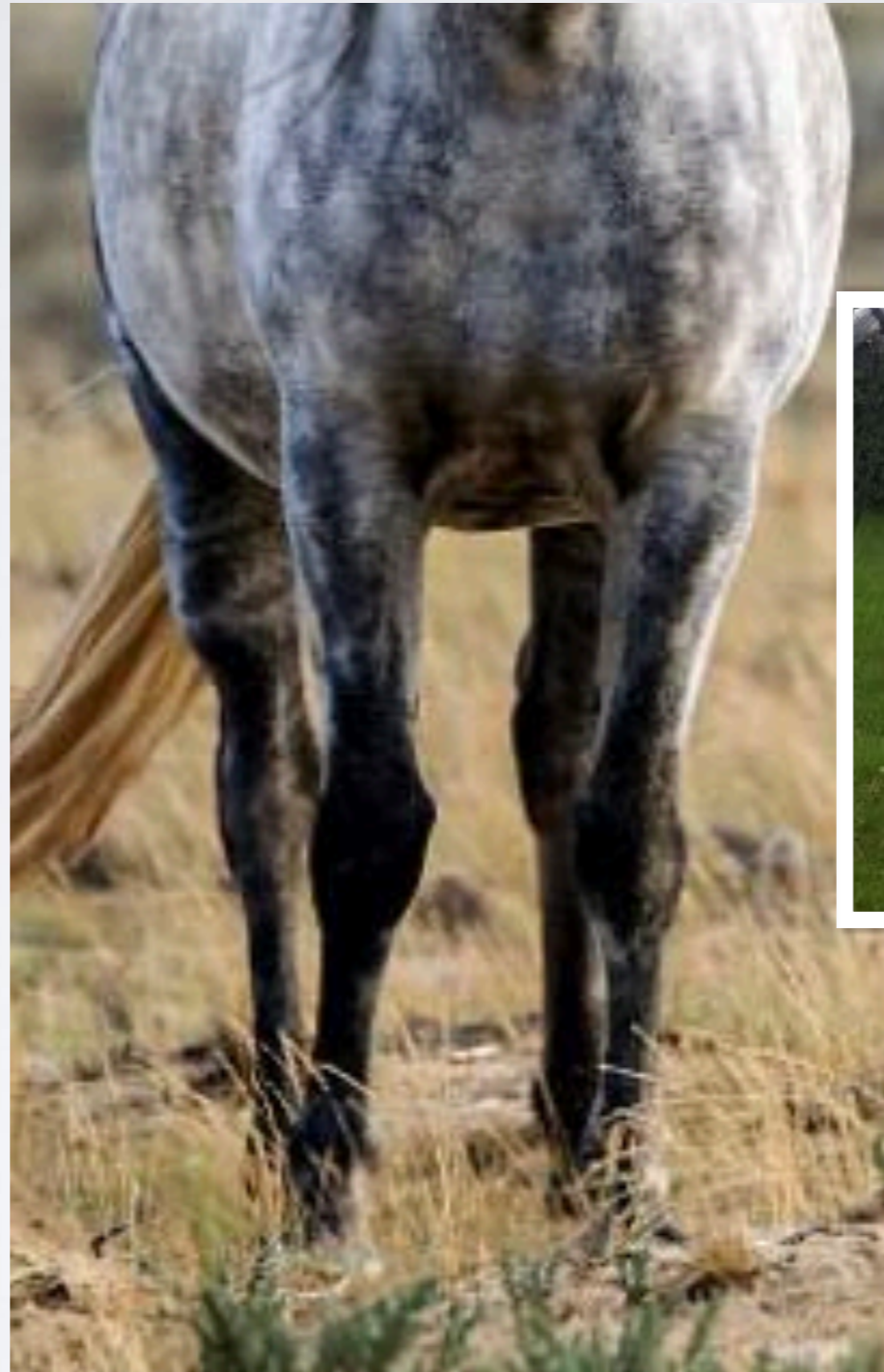
# ASSESSMENT

- \* Neck assessment
  - \* Cranial view
  - \* Lateral view
  - \* general



# ASSESSMENT

- \* Sternum and foreleg assessment
- \* Cranial view
- \* Lateral view
- \* general



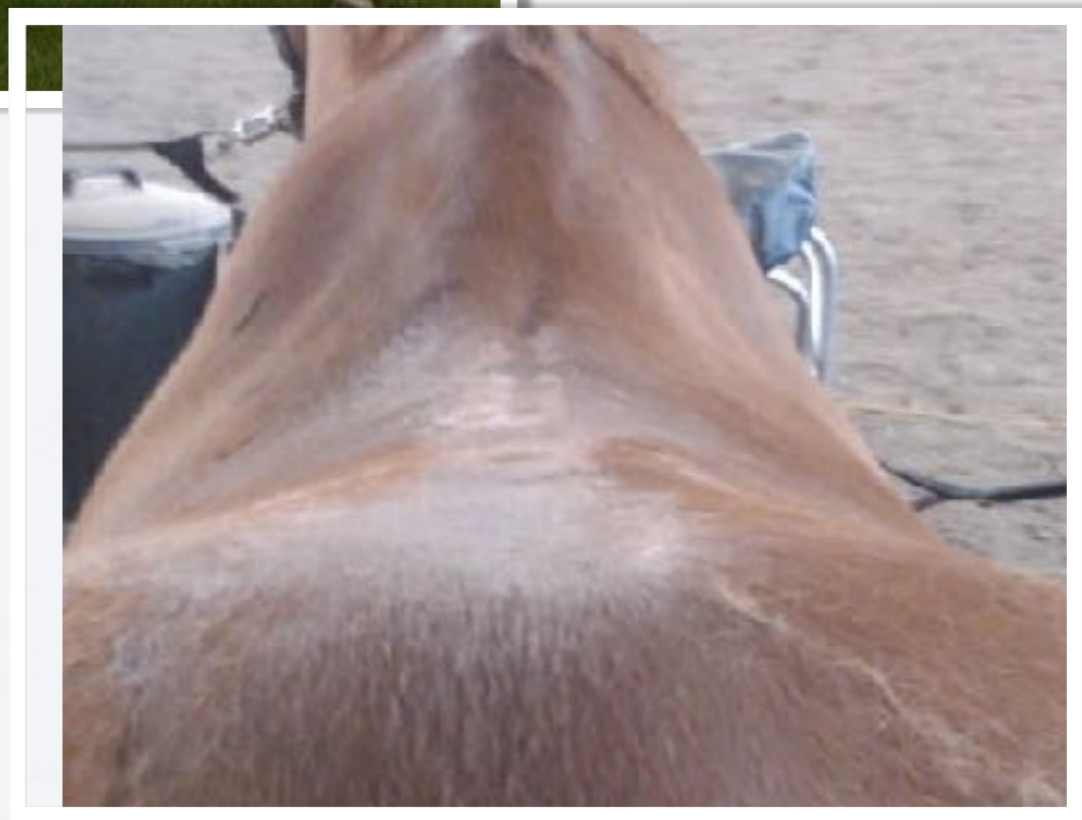
# ASSESSMENT

- \* Trunk

- \* Top line

- \* Under line

- \* Dorsal view



# ASSESSMENT

- \* Hip and hind leg
- \* Lateral view
- \* Caudal view
- \* Pelvis back connection





# DYNAMIC ASSESSMENT

- \*Handler
- \*Footing
- \*Patience
- \*Organization
- \*Repetition - you must see the imbalance more than once.
- \*Allow the horse to get moving
- \*Quarterly check in
- \*Photographs
- \*Oh..... and a good app!



# PRACTICAL ACTIVATIONS AND STRETCHES



# POLL NOD



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## Poll Nod

### Poll Nod

- Have horse standing in a firm flat surface and as square as possible. These are both for safety and for the exercise to be as effective as possible.
- Place one hand on your horses poll where the head piece of your bridle goes.
- Be careful to not get your hand caught up in the halter, in case the horse objects and lifts its head quickly.
- Place your other hand under your horses' jaw, about the height that your cavesson does up.
- While using the poll hand as a stabilizer, take the jaw hand and start to make your horse say yes, or nod.
- Start small and build with this exercise, we would love to see a big yes movement but to do so you need to gain trust, and to gain trust start with little baby yes's.
- It's important that we do this in the natural line of the horses spine.
- Straight neck and straight head if possible. This will ensure you get the most balanced work possible.
- Repeat 20-30 times if horse permits you.
- Allowing the horse to bounce back to its neural posture each time.
- The amount you choose to do should be decided in conversation with your body worker to ensure we don't go too far and make the horse sore.

On each of these mobility



type movements you can do them before and after working your horse.

- Before work: we will do them in a rocking fashion with the quick activation and release.
- After work: they can be turned into more of a stretch type move where you do the movement and hold while in a comfortable range of motion for the horse.
- Hold times will be 3-5 seconds for beginners and working up to the 30 second mark for more advanced horses.
- The above number of repetitions will be reduced by 1/4 if you are increasing the more advanced hold times.

**\*\*Be safe when stretching your horse. Have a look around the area you are working in and ensure there is nothing that can catch him or he can trip on. Make sure the footing is safe so he doesn't slip and that you never stretch a horse that is tied up. Safety is our number one concern and we have to always make sure we don't put our horses in a dangerous position.\*\***

**\*\*NOTE: Therapy is not a replacement for Veterinary Care.\*\***

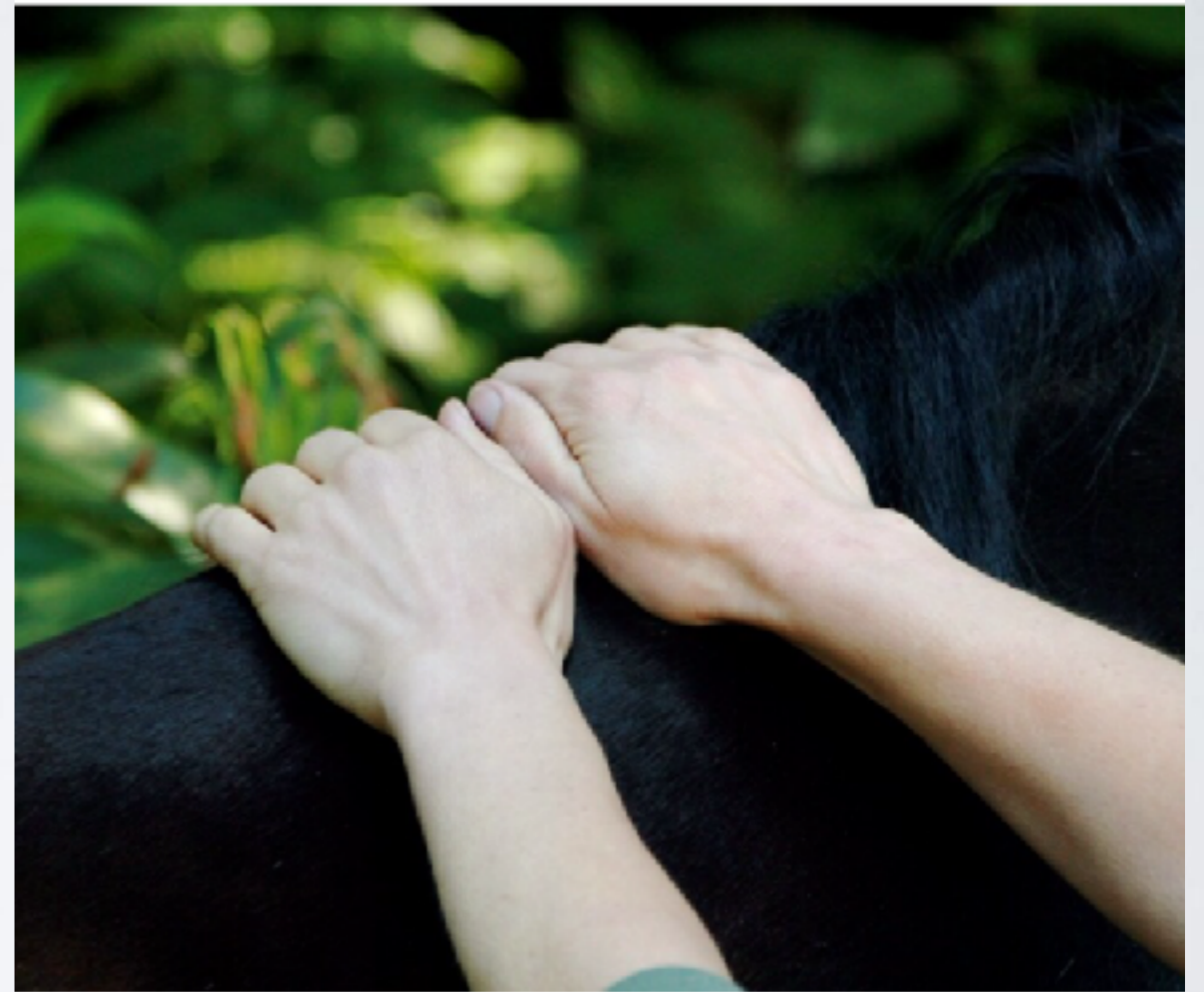
# NECK ROCK

Place one hand on each side of the base of the horse's neck. Start gently pushing the horse over to one side, allowing the horse to remain balanced without lifting its hooves off the ground. Allow the horse to come back to the midline and then gently push it to the other side. Rock the horse back and forth such that the horse works its core and paraspinal muscles to balance. After repetitions of rocking at the base, slowly move one hand print up the neck, working this location and so forth until you have reached the poll region or as high up the neck as the horse will allow you to work. If you find a location of restriction, remain there until a release or range of motion change is felt.



# WITHER ROCK

Reaching and cup the wither with both hands. Bring the horse towards you. You want to see that the horse totally weights the foreleg that you are standing beside. You can watch the fetlock on your side of the horse drop down with the weight shift you have created. You would like to bring the horse as far as they are willing to go without having to take a step to balance themselves. Allow the horse to bounce back to neural position. This move can be done in several places along the wither and is performed on both sides of the body.



# FORELEG STRETCHES

This stretch should only be done if your horse has no leg pathologies and your horse is comfortable with the moves.

## Protraction stretch

Lift the foreleg up and pull it forward, as shown. Please protect your back by resting your arm on your leg, and do not do this stretch if your back is being strained by the weight of the horse's leg. Support the horse's knee with your arm, but be careful not to pull on the knee. Cup the fetlock and bring the hoof forward. The knee should be at a 90-degree angle from the horse's shoulder, and the hoof should be pulled out as much as the horse will allow.



# FORELEG STRETCHES

## Retraction stretch

Pick the foot up as if you were going to pick it out. Once you have it up, support the weight of the foot with the outside hand and place your inside hand on the horse's knee. Keep the angle of the knee as open as possible to allow for little to no strain on the knee. Now shift your weight towards the horse's haunches and take the leg with you as you do this.

As you do this stretch, watch that the leg remains in line with the shoulder - do not pull the leg medially or laterally as this may strain the shoulder joint. Listen to your horse - if the stretch is too much, back off with the range of motion. Stretching to the point of pain will not be to your advantage. Start by holding this stretch for 3-5 seconds and slowly build to 10-15 seconds. A more advanced stretch could be held for 25-30 seconds. Again, listen to your horse when performing any stretch.



# TUMMY TUCKS/BELLY LIFT



Creating a full range of motion in your horses back is very important. Like sit ups and core exercises for us, tummy tucks target your horse's back, abdominals, and paraspinal muscles. Evaluate where your horses back is the lowest, as this is the area to focus on for the lift. If your horses back is lowest in upper back place your fingers under sternum, and if the mid back is lowest then hand placement will be further back towards the tummy area. Use your braced fingers on midline of the horse and tickle. Some horses hardly need any pressure and some horses need a firm encouraging stroke. Watch for lifting in the horses back. Some horses don't have a lot of range of motion especially if their back is low or sore. Also remember how much you hate sit ups? Well a lot of horses hate them too! Be aware of your horse's hind leg or mouth telling you his/her opinion on tummy tucks. Start with 3-5 reps on each side of the horse. You can build to 10-12 reps on both sides. Hold each rep for 5-8 seconds. We always do both sides of the horse as they usually have a slight bend away from the side the person is on





# PARASPINAL/UPPER THORAX STRETCH



Stand at your horse's side and reach underneath the body to the opposite girth area. Place your hand in the girth area and form a half-moon shape with your hand, encouraging the horse to move his ribs towards the side on which you are standing. Be sure to look at the horse's rib cage before and after the stretch to determine the efficacy of the stretch. The ribs likely won't appear to move that much, however it represents a significant range of motion for the back and muscles that support the spine (paraspinal muscles).

Hold times for this stretch start at 5 seconds and can build to 20 seconds after the horse becomes more familiar with the exercise. Perform 2 repetitions of this stretch on each side. bend away from the side the person is on.



# FORELEG STERNAL LIFT



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## Foreleg Sternal Lift

### Foreleg Up Sternal Lift

- Have horse standing in a firm flat surface and as square as possible.
- These are both for safety and for the exercise to be as effective as possible.
- Pick up the foreleg and support the leg so that you and your horse are comfortable.
- The leg must stay under the horses' body in the natural line of the leg and not pulled to the side.
- Reach in front of the foreleg and then under the horses' thorax.
- Your fingers should rest just in front of where your girth would lay right in the center of the horse.
- Do a lift there by wiggling your fingers and stimulating the horse to lift the thorax up using the muscles of the leg still planted on the ground.
- This exercise is extremely effective at targeting the core tissue and thoracic sling tissue on that leg.
- Repeat 10-15 of these if horse permits you.
- Allowing the horse to bounce back to its neural posture each time.
- The amount you choose to do should be decided in conversation with your body worker to ensure we don't go too far and make the horse sore.

On each of these mobility type movements you can do them before and after working your horse.

- Before work; we will do them in a rocking fashion with the quick activation and release.
- After work; they can be turned into more of a stretch type move where you do the movement and hold while in a comfortable range of motion for the horse.
- Hold times will be 3-5 seconds for beginners and working up to the 30 second mark for more advanced horses.
- The above number of repetitions will be reduced by 1/4 if you are increasing the more advanced hold times.



**\*\*Be safe when stretching your horse. Have a look around the area you are working in and ensure there is nothing that can catch him or he can trip on. Make sure the footing is safe so he doesn't slip and that you never stretch a horse that is tied up. Safety is our number one concern and we have to always make sure we don't put our horses in a dangerous position.\*\***

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# FORELEG LIFTED ROCK BACK



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## Foreleg Lifted Rock Back

### Foreleg Lifted Rock Back

• Have horse standing in a firm flat surface and as square as possible. These are both for safety and for the exercise to be as effective as possible.

• Lift up your horses' front leg. Gain a comfortable stance that allows you to cradle the leg and maintain the weight of the leg.

• The leg must stay under the horses' body in the natural line of the horse, careful to not pull leg out to the side.

• Try as well to keep the knee open to avoid stress on the knee or fetlock joint.

• Now place your free hand on the horses point of shoulder and push back towards the opposite hind leg.

• You want to see the opposite hind fetlock drop, indicating you have pushed with sufficient force to rock the horses weight back to that leg.

• Repeat 20-30 times if your horse permits you.

• Allowing the horse to bounce back to its neural posture each time.

• If your horse is asymmetrical. Your body worker will want you to focus your efforts on the side with less mobility.

• You will be able to note a difference in the ease of the movement as you do both sides.

• If there is a difference work on the side that is harder to push with more repetitions than the easy side.

• The amount you choose to do should be decided in

conversation with your body worker to ensure we don't go too far and make the horse sore.

On each of these mobility type movements you can do them before and after work.

• Before work: we will do them in a rocking fashion with the quick activation and release.

• After work, they can be turned into more of a stretch type move where you do the movement and hold while in a comfortable range of motion for the horse.

• Hold times will be 3-5 seconds for beginners and working up to the 30 second mark for more advanced horses. The above number of repetitions will be reduced by 1/4 if you are increasing the more advanced hold times.



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# STIFLE ISOMETRIC



This exercise targets your horse's stifle tone, lateral hip stabilizer tissue, opens the opposite SI joint and activates the core tissue. This is a great way to get tone in an area that is very difficult to target.

Start by grabbing your horse's tail where there is no bone. Point the tail at the dimple of the stifle. Pull on a plane that is slightly downwards and forwards, as shown in picture, until you see the quadriceps muscles contract. Hold for 5-10 seconds. Build slowly, starting at 5 seconds and work your way up to the 10-second mark. Start with 3 repetitions and work your way up to 8-10 repetitions.

The horse has to keep weight on the leg of interest for this exercise to be effective. If the horse keeps moving away from you, check that you were not pulling too abruptly, too strongly or that the footing prevented the horse from comfortably keeping his balance.



# HIP TUCK



This stretch should only be performed on a safe horse and needs to be done in a slow easy fashion so the horse is not being asked to move hips in a ballistic action that could hurt the horses SI joint and spine. Place your hands on the middle of your horses gluteal muscle as shown. Slowly run your hands down towards the horses hamstrings staying on the soft tissue that makes up your horses bum. The action you should see your horse take is a tucking of the bum, rounding of the back and lowering of the tail head. Please do this slowly and listen to your horse; if the horse walks away from you, you maybe went too far with the range of motion. Hold this stretch for only 3-5 seconds and build to 10-15 seconds as your horse initially becomes accustomed to it.



# HIP/TAIL ROCK

Cup the top of the tail with one hand, as shown. Be cautious to keep your hand right at the top of the tail, where it meets the horse's hamstrings. Be sure not to slide down the tail, as this will just move the tail. Your other hand should stay on the hip to feel if the horse becomes uncomfortable and for your safety. Start your rock by pushing the horse away from you and putting weight on to the opposite hind leg, if you're able you can watch the fetlock on that side drop. Once achieved you will then allow horse to return to neutral, and pull towards yourself. Again, watching for the fetlock on your side to drop. You want to create a slow rocking motion, building your range of movement as the horse relaxes into it and understands the movement.



This stretch must only be done on a very safe horse that tolerates being worked with from behind. Stand safely behind your horse and grasp the tail with one hand right at the base of the tail where it attaches to the body. Place your other hand about halfway down the dock. The angulation of the tail should match that of the croup. In stretching, gently rock your weight back to put some traction on the tail. This must be done very gradually, paying close attention to your horse at all times to evaluate their level of comfort. The horse will often lean away from you, which will determine the weight of this stretch, as their lean should be matched by you. Be sure to keep the tail in line with the horse's spine at all times. Hold times for this stretch start at 5 seconds and can build to 20-90 seconds after the horse becomes more familiar with the exercise. Perform 3 repetitions of this traction exercise. When doing this exercise as an activation, you are going to use short tugs to activate the tissue, watching for the tissue to jump up, and ensuring the horse is comfortable with this tug. Repetitions for the activation should start at 10 and build to 30-50 as indicated by your professional.

# TAIL PULL



# HIND LEG STRETCHES- RETRACTION

Pick the leg up as if you were going to pick out the feet. If the horse is comfortable, get your body into a supportive stretch stance, as shown in the picture. Place your inside hand on the horse's hock to support the leg and give the horse some sense of stability. With your outside hand cupping the fetlock joint and your elbow on your leg for support, rock away from your horse and allow the stretch. If the horse remains comfortable, you can turn your body and incline the horse's leg medially, thus bringing the leg towards the tail while maintaining the extension in the leg. This will stretch the abductors on the lateral side of the horse's leg. Be very careful to watch that the horse remains comfortable and that you don't ask for too much. Always return to neutral before letting the horse's leg back to the ground. Hold times will start slowly for this stretch at 5-10 seconds and can build up to 30-45 seconds for an experienced horse.





# HIND LEG STRETCHES- PROTRACTION

Hind leg stretch Pick the leg up as if you were going to pick out the feet. If the horse is comfortable, place your inside and your outside hand cupping the fetlock joint. Gently, bring the entire leg forward under the body using the fetlock joint. Essential that you keep the hind leg in line with the front leg, as to not cause strain. Lateral and medial movements can be added as you and the horse are normalizing to this stretch, making the stretch more advanced. Hold times will start slowly for this stretch at 5-10 seconds and can build up to 30-45 seconds for an experienced horse.



# COOKIE STRETCHES



These locations are ideals, as you teach your horse, he/she may not be able to reach each of these locations. Keeping the same trajectory within the movement is key to targeting the tissue correctly.



Tips - Horses standing as square as possible on a firm flat surface, horses head and neck balanced as it comes to take cookie, horse slowly reaching around (no ballistic movements) and holding the stretch as it mouths cookie, horse returns to full neutral after taking cookie.

A)The hipbone cookie - as your horse comes around to take a cookie from his hipbone he is stretching the mid and low back on the opposite side, as well as the poll and neck.

B)The stifle cookie - as the horse reaches to this cookie on a 45\* angle, the horse is stretching the jaw and poll, as well as mid- and upper-back and upper shoulder.

C)The center of chest cookie - have the horse reach his neck up and then back towards his chest. This stretches the neck, shoulders, upper ribs and pectorals.

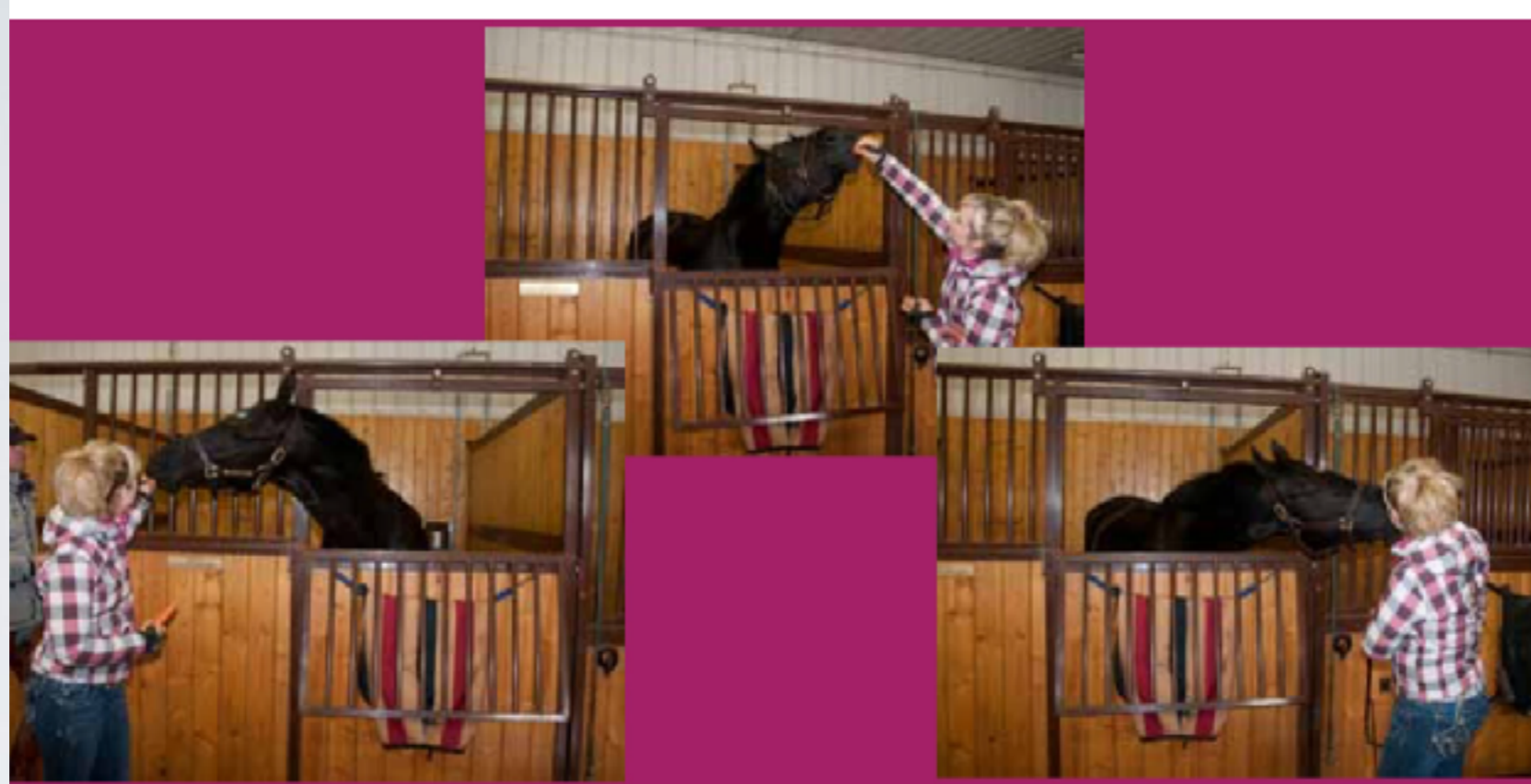
D)The cookie between front legs - the cookie is held at the height of the chestnut, and we must ensure the horse is not allowed to bend or buckle his knees when doing this stretch. This will stretch the back, shoulders and neck. The range of motion is dictated by the horse - have him reach as far as he can without using his legs.

E) The cookie at the outside of the fore hoof - have the horse reach down to the ground and slightly curl around the hoof. This stretches the neck, shoulders, poll and jaw.

F) If your horse is behaving aggressively because of the cookie, try putting the cookie in a small bucket and placing the bucket at the target areas. Another option is to put a carrot through a yogurt container lid to protect your hand as shown in the picture. Safety is the number one goal so be careful and use common sense so that your horse can experience the maximum benefit from the cookie stretches.



# CLOCK STRETCH



The clock stretch is a fabulous range-of-motion exercise for your horse's poll. Stand in front of your horse and have your cookies ready. Lift a cookie straight in the air at the 12:00 position and have your horse stretch up and out to reach the cookie. Hold for 5-8 seconds. Next, bring a cookie to the 3:00 position and have your horse reach across to the cookie, again holding for 5-8 seconds. Next bring a cookie down to the 6:00 position and lastly the 9:00 position, holding for 5-8 seconds. If it's safe and your horse won't lift their neck and bump their head, try using an open-front stall door to keep your horse from walking forward. Maximize your horse's reach and stretch. If your horse stays well behaved, you could do two clock exercises in each direction.

