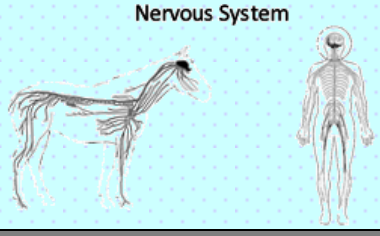
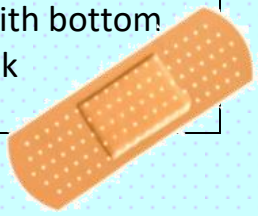
	Background Introduction
RIDER BIOMECHANICS 	• Rider Biomechanics is the study of the functioning of the body in movement using mechanical principles • Following are some postural correction suggestions
Important? Why?  1. Horse Welfare 2. Rider Safety 3. Pain-Free Ease	• But first; Why is Rider Biomechanics important? • Reduces horse's back pain and spinal damage • Lessens chances of horse stumbling or rider falling • Both horse and rider can more comfortably use their joints as the natural shock absorbers they are
Objectives 1. Basic Rider Position 2. Proprioception Awareness 3. Somatic Aversion Tools	• What we covered over the 1 hour presentation; • Common myths, mysteries, mis-understandings relating to rider stability and balance and how the nervous system affects coordination and proprioception.
Nervous System 	• Not all information our brain tells us is true! • Habits and injury patterns create false body senses *(Remember 45º arm exercise with eyes closed)* • Rider mounted stretches and breathing is beneficial
	Following are some postural correction suggestions
Head & Neck Problems  1. Jut forward 2. Tilt back 3. Lean to one side 4. Tip (look) down 5. Wobble	**Head and Neck Problems** • Imagine stretching head upwards to sky or Go to extreme as direct opposite in holding tension • Invite rider to look between horse ears not at ears • Tools can include; head wrap, glasses with bottom taped off, bandaid or sticky tape on neck 

Shoulders & Arm Issues

1. Too stiff
2. Flap
3. Out of alignment

Shoulders and Arm Issues

- Aiming for straight line elbow to horse's muzzle
- You can suggest your rider exaggerate the not so good posture eg; hunched shoulders or raise hand to sky or even circle/aeroplane arms
- Side walker can *Float* rider lower arm (Clipboard)
- Tools can include; shoulder brace with break-away velcro release, squish horse, Floating base

Hand Faults

1. Counter / balance
2. Non-moving
3. Hard
4. Rotated or wide

Hand Faults

- Check rider fear and lower body balance if hands are flying up in air; rider can hold mane or push pinkie fingers into mane keeping thumbs on top
- Tools can include; whip under thumbs, stretchy band with break-away velcro around wrists, wrist brace, rein holder fidgets, mirror good hand

Torso Troubles

1. Wobble
2. Slouch
3. Tip forward
4. Lean back
5. Arched
6. Crooked

Torso Troubles

- Issues here can be fear related or chair-seat stiff Shortening stirrups may help as well as standing
- Invite rider to stretch upwards (head or arm)
- Breathe aiming for more gap between rib and hip
- Rider can self-check lower back with flat of hand
- Tools can include; velcro back support, wrap or side walker wrap, necklace/broach to lift sternum, stick-on eyes on sternum or shoulders

Hip Concerns

1. Closed
2. Stiff
3. Painful

Hip Concerns

- Issues can be age, wear and tear or chair-seat
- Lunges prior to riding to stretch hip flexors helps, as does riding past mirrors for self-check
- Leg stretches down and back in saddle, knees up
- Imagery of legs being wet towels draping or soft assisted push on knee exaggerating tension
- Tools can include; Folding face cloth or tea towel to support the twist of saddle under rider, riding on specially designed low flat squishy balls safely contained in casing, postnatal band around hips

1. Grip
2. Flap
3. Painful
4. Weak

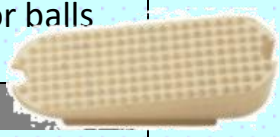
Thigh Blunders

- Check rider thigh / knee angle with stirrup length
- If unsure, have rider bring knees up on saddle for a minute this will engage their nervous system
- If safe riding without stirrups stretches and aligns
- Tools can include; ankle weight of less than 500grams, Equi-Cube rider aid, Float foot

1. Grip
2. Flap
3. Stiff

Knee Matters

- Stiff ankles make knees grip rising Centre Of Gravity, ask rider to brace and release, repeat
- Rider can walk their knees/legs up, down, repeat
- Standing rider in stirrups at halt or walk resets
- Tools can include; knee compression brace, squish toy, stirrup iron foam or wedges or balls



1. Squeeze
2. Wobble
3. Out of alignment

Calve Catastrophes

- Leg stretches and standing in stirrups (trot) great assistance also stretchy band girth-to-leather
- Simpler exercise is toe up/down, heel forward/bk
- Tools can include; bandage wrap calf, foam against calves or knees depending on horse

1. Brace
2. Roll
3. Flop

Ankle Woes

- Ankles are shock absorbers with heel 1cm lower
- Stretches, ankle circles and wiggling foot helps
- Tools can include; toe cages with wider stirrup platform, wedges on stirrup iron to horizontal balance foot, wrap figure 8 bandage around ankle, Float ankle or use mirror for bad side

1. Jarred
2. Un-level Tilt
3. Un-even weight
4. Numb

Feet Mistakes

- Pinkie toe must be on stirrup, or foot/ankle rolls
- Toes allowed to point out a little, 15° average
- If rider losing stirrups, shorten leathers/stirrups
- Lifting, raising foot like walking heel to toe
- Scrunching and relaxing toes inside boots
- Tools can include; foam under foot on iron tread, tactile stimulus of nodules/bumps

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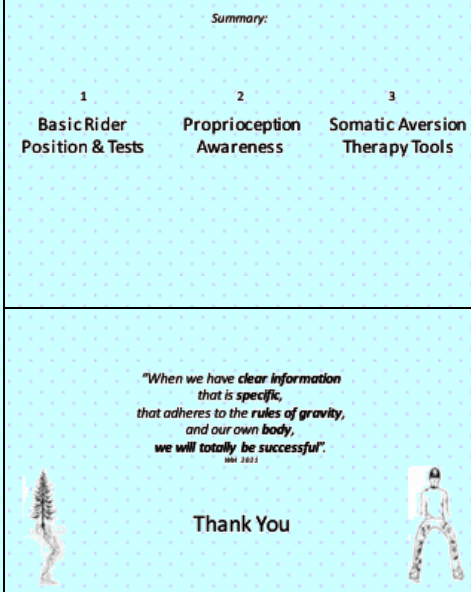
<td> 
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<td>Summary
1. Remember first rider needs to feel safe and secure aka stable with good breathing form
2. If a rider can't perform or can't hold a correction for long, it may be old injury or habitual issues in their personal nervous system which need help
3. Consider tactile stimulus to help re-boot their system from the inside-out</td>
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<td>Thank You
I hope you've enjoyed this information and increased your knowledge of how the body works in the saddle. How coordination and proprioception can be assisted with physical stimulus instead of force.</td>
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<td>By; Michelle Wein CCCRDA</td>
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https://www.equicube.net/ **Small tools can be sourced locally from FIDGET TOY stores and online*