

Comparison of Equine Assisted Riding and Driving

Mary Jo Beckman



Bob, Tom, and me



Eight dimensions of Wellness

Ref: Northwestern.edu/wellness/8-dimensions

- 1. Emotional
- 2. Social
- 3. Intellectual
- 4. Physical
- 5. Environmental
- 6. Spiritual
- 7. Occupational
- 8. Financial

Riding/Driving

- 1. Yes
- 2. Yes
- 3. Yes
- 4. Yes
- 5. Yes
- 6. Yes/No
- 7. Yes/No
- 8. Neutral

Areas of Concentration

PHYSICAL (4)

COGNITIVE

EMOTIONAL (1) (2)

INTELLECTUAL (3)

COMPETITION

SAFETY

Physical

RIDING

- Physical exercise
- Challenges gross and fine motor skills
- Eye to hand coordination
- Stimulates vestibular senses
- Core strength is challenged resulting in trunk stability
- Riding astride at the walk moves the body as if the person is walking.
- Horse's hip motion has the same three dimensional movements as a human's walk (up/down, forward/back, rotation)
- Human hip movements are emphasized because that is the point of contact with the horse depending on gait.
- Body needs to be flexible without rigidity to move in unison with the horse

DRIVING

- Physical exercise
- Challenges gross and fine motor skills
- Eye to hand coordination
- Stimulates vestibular senses
- Upper body strength challenged through posture and holding reins and whip
- Develops physical abilities to negotiate cones and cross country courses
- Different types of movement input to the driver depending on vehicle and terrain (speed bumps or pot holes, pavement versus gravel versus dirt)
- Trunk stability is challenged depending on vehicle movement
- Same posture is required for all gaits.

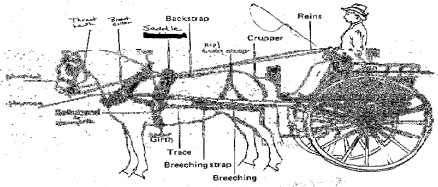
Caisson Platoon Rider Ray Henniger



Colonel Greg Gadson



Driving posture



Posture Driving Assistance



Vehicle motion/input to driver

- Cart (2 wheels) versus Carriage (4 wheels)
- Springs
 - Pneumatic
 - Rubber
 - Metal
- Terrain
 - arena footing
 - Roads (paved - gravel - dirt)
 - Fields/pastures

Full Elliptical Spring



Antique Surrey Leaf Springs



Pneumatic tire and spiral spring



Pneumatic tires can have punctures!



Rubber Tire



Metal wheels



Driving in the Antique Surrey Carriage



Cognitive

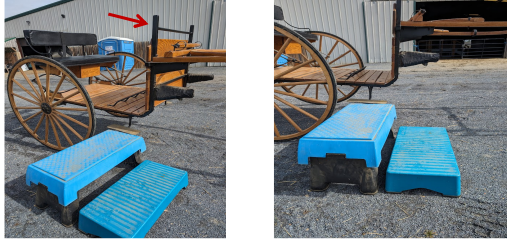
RIDING

- Sequencing tasks
- Stimulates alertness
- Sensory rich environment
- Impulsive control
- Spatial awareness with equine on ground, mounted
- Focusing on task/skill

DRIVING

- Sequencing tasks
- Stimulates alertness
- Sensory rich environment
- Impulsive control
- Spatial awareness with equine on ground, driving a turnout (equine hitched to vehicle)
- Focusing on task/skill, especially looking ahead

Entering/Exiting Turnout- Motor Planning



Assistive Devices for Entering/Exiting Turnout



Emotional

RIDING

- Pride and joy in accomplishment
- Positive interaction with an animal
- Interaction with Instructor and volunteers before/after/during riding
- Control of equine through hands, voice, weight which results in confidence and self-esteem

DRIVING

- Pride and joy in accomplishment
- Positive interaction with an animal
- Interaction with Instructor and volunteers before/after/during driving
- Control of equine through hands, voice, and whip which results in confidence, self-esteem
- Voice modulation/control

Devora, Daffy, and Andy



Devora



Intellectual

RIDING

- Learning a new skill or renewing a previous skill
- Provides additional education
- Perceptual skills

DRIVING

- Learning a new skill
- Provides additional education
- Improves perceptual skills
- **Increase in verbal skills**
- **Equine driving skills might lead to ability to drive motorized vehicles**

Caisson Platoon Riding and Driver



Van den Heuval Carriage

Purchased with donations from the US Driving Community
Flown over from Holland

Arrived in 2009 and was used by Caisson Platoon Equine Assisted Programs until transferred to Loudoun Therapeutic Riding program



Second seat folds down into a ramp



Amy's drive in Van Den Heuval Carriage



Amy has the reins/lines



Instructor versus Student reins/lines



Amy's Drives



Competition

RIDING

- Competition opportunities are in able-bodied events or in therapeutic riding shows.
- Para-Olympics have offered equestrian events since 1996 and there is a World Championship annually.

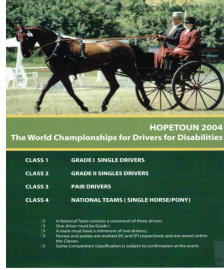
DRIVING

- Driving can be an option for individual who cannot physically sit astride or prefers an equine activity other than riding.
- World Championships for Drivers with Disabilities

Painting of Amy by Veteran



Hopetoun, Scotland 2004



Full body seat mounted on carriage



Safety

RIDING

- Mounting/Dismounting
- Equine spooks, emergency dismount can separate riding from equine.

DRIVING

- Driving is much more challenging for safety because driver cannot separate from vehicle
- Quick release connections
- Runaway – Driver has to stay with turnout, otherwise equine can transition into flight mode since vehicle is chasing it.

Queen's 90th Birthday – Household Cavalry



Carriage departing Royal Windsor Show 2016



Koos de Ronde, 4-in-hand winner 2016



Riding horses pulling carriage