HIPPOTHERAPY

- Hippos – Greek word meaning horse
- Treatment with the help of a horse
AHA’s definition of hippotherapy

“a term that refers to the use of the movement of the horse as a strategy by Physical Therapists, Occupational Therapists and Speech Language Therapists to address impairments, functional limitations and disabilities in patients with neuromusculoskeletal dysfunction. This strategy is used as part of an integrated treatment program to achieve functional outcomes.”
Hippotherapy

- **Hippotherapy DOES**
  - Use the movement of the horse in conjunction with therapeutic exercises and activities to facilitate neuromuscular improvements

- **Hippotherapy is NOT**
  - Teaching a patient how to ride a horse
  - Therapeutic riding
History of Hippotherapy

- 1960s – therapeutic riding centers began opening throughout Europe, Canada and the United States

- The term Hippotherapy was created by centers in Germany, Austria and Switzerland where many began using the horse as an element of physical therapy
History of Hippotherapy

- 1970s – Hippotherapy concepts began to be utilized in the United States
- 1992 – American Hippotherapy Association formed (AHA)
- 1993 – AHA became a section of the North American Riding for the Handicapped Association (NARHA)
  - 2011 – NARHA changed its name to the Professional Association of Therapeutic Horsemanship International (PATH, Intl)
History of Hippotherapy

- 1994 – standards of practice created
  - Certification board established
  - Hippotherapy Clinical Specialist (HPSC)

- 1999 – first administration of HPCS exam
American Hippotherapy Association

- Established standards of practice
  - Ensures treating therapists practice according to their states’ practice acts
  - Have all necessary training in Hippotherapy and equine skills
  - Oversees the curriculum and faculty
  - All courses are held at PATH, Intl accredited facilities
  - Hippotherapy is abbreviated HPOT
HPOT EDUCATION AND CERTIFICATION

• Introduction to basic equine skills
• Level 1 and Level 2
  ○ Equine skills
  ○ Treatment principles
  ○ In depth course topics and workshops

• Physical therapists, occupational therapists and speech language therapists may sit for HPCS exam
  ○ PTAs and COTAs may take all of the course levels but may not become certified
  ○ Can apply to become PATH, Intl Registered Therapists

AHA
DIAGNOSIS USING HPOT

- Cerebral Palsy
- Traumatic brain injury
- Amputation therapy
- Multiple Sclerosis
- Down’s Syndrome
- Muscular Dystrophy
- Autism Spectrum Disorders
- Developmental Delays
IMPAIRMENTS ADDRESSED

- Abnormal muscle tone
  - Hypertonic
  - Hypotonic
- Balance
- Postural control
- Sensorimotor function
- Head and neck control
Hippotherapy is one element that can be included in the plan of care developed by the therapist

- AHA strongly recommends physician prescription/approval for inclusion in the POC

Therapy session conducted on horseback

- Activities such as
  - Reaching
  - Balance
  - Playing catch
  - Standing in stirrups or on saddle
  - Various positions on the horse
HPOT

- Rider sits on a bareback pad usually with a handle
  - Gives the rider more direct feedback of the horse’s movements
- Stirrups may or may not be included
- Always wear a helmet and gait belt with handles
HPOT TEAM

- Therapist
- Horse handler
- One or two sidewalkers
  - Changes as the rider progresses
- Horse
  - All horses are trained and specially selected based on temperament and character
  - Within a facility, horses are also selected for a rider based on size, gait pattern and character
WHY THE HORSE?

- The horse’s gait provides a rhythmic motion that simulates pelvic anterior/posterior sway during ambulation.

- The horse’s movements continually challenge the rider to make small adjustments in order to maintain their balance and posture.

- The horse and surroundings also provide a wide range of sensorimotor stimulation.
BENEFITS OF HPOT

- Functional improvements
  - Balance
  - Strength
  - Postural control
  - Cognition
  - Head and neck control
    - Often leads to improvements in language and articulation
  - Decreased energy expenditure
Silkwood-Sherer et al pilot study examining balance and persons with Multiple Sclerosis

- 15 persons: HPOT group and control group
- Assessment tools:
  - Berg Balance Scale – BBS
  - Tinetti Performance Oriented Mobility Assessment – POMA
- Weekly 45-60 minute HPOT intervention for 14 weeks

- HPOT group
  - BBS mean increase 9.15 points
  - POMA mean increase 5.13 points

- Control group
  - BBS mean increase .73 points
  - POMA mean decrease .13 points

“shows promise for treatment of balance disorders in persons with MS”

HPOT RESEARCH

- Muscle symmetry in children with Cerebral Palsy
- 15 children received 8 minutes of HPOT or 8 minutes sitting astride a barrel
- Surface EMG measures sitting, standing and walking muscle activity before and after both interventions
- Significant improvement in muscle symmetry in HPOT group
  - Especially in those having the highest asymmetry before
- No significant change in children after sitting on the barrel.
Habilitating Balance Deficits in Children with Movement Disorders

Goal: to “relate improvements in balance to improvements in ADLs and functional skills in children”

16 children with a variety of diagnosis 5 to 16 y/o
40 to 45 minutes 2 times a week for 6 weeks

Outcome measurement tools
- Pediatric Balance Scale (PBS)
- Activities Scale for Kids – performance (ASKp)

## HPOT Research

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<th>Baseline 1</th>
<th>Baseline 2</th>
<th>Post HPOT</th>
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<td>47.5</td>
<td>49.0</td>
<td>53.0 +5.5 to 4.0 points</td>
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<tr>
<td>ASKp</td>
<td>Median 81.7</td>
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HPOT RESEARCH

- PBS showed significant increase in
  - Single leg stance
  - Tandem stance
  - Alternate stool touch
- ASKp showed highest score change in
  - Personal care
  - Dressing
- Conclusion “strengthens the evidence for using hippotherapy to treat balance deficits in children with neuromuscular disorders”

Silkwood-Sherer et al
REIMBURSEMENT

- AHA making strong push for correct terminology
  - not call it a modality or type of equipment
- Refer to it as a treatment strategy as a part of the whole treatment approach
- Approaches such as
  - Neurodevelopmental approach
  - Sensory integration
  - Motor learning
  - Motor control
  - Psycholinguistics
REIMBURSMENT

- APTA and AOTA approve of using codes
  - NMES 97112
  - Therex 94110
  - Ther activities 97530
  - Sensory integration 97770

- OR
  - Unlisted therapeutic procedures 97799

- As long as documentation supports the approach such as NMES to improve posture using the horse as a technique, the ATPA supports coding as NMES
There are some insurance companies that reimburse for HPOT.

Many do not – Aetna specifically states HPOT is not covered.

Most HPOT programs only accept out of pocket payments.

Typically $70 to $150 per half hour.
HIPPOTHERAPY

- Most clinician report marked improvements in their patients
- Head and neck control often lead to improvements in communication skills
- Many facilities have program for veterans who have lost limbs

- http://www.youtube.com/watch?v=FLFI6mbf-8c
HIPPOTHERAPY

• IT IS FUN!!!!!!
• Children really engage and don’t feel like its work
• Children light up and enjoy their time with their horse
• Very motivating
REFERENCES

- http://www.pathintl.org/
- http://www.americanhippotherapyaassociation.org/about-aha/about_aha/