

ACCELERATE YOUR REHABILITATION!

THE BENEFITS OF INCORPORATING HIPPO THERAPY
AND ANIMAL-ASSISTED THERAPY INTO TREATMENT.



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Traditional Speech Therapy



Traditional Occupational Therapy





OCCUPATIONAL AND SPEECH THERAPY: UTILIZING ANIMAL ASSISTED THERAPY AND HIPPO THERAPY



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OBJECTIVES

- Define hippotherapy/animal-assisted therapy
- Examine the research on the use of hippotherapy/animal-assisted therapy in rehabilitation
- Understand how a therapist incorporates hippotherapy and animal-assisted therapy into speech and occupational therapy to achieve functional goals

HIPPOTHERAPY

- Hippos= Horse in greek
- Treatment Strategy by Speech, Occupational, and Physical Therapists
- Not Hippotherapists

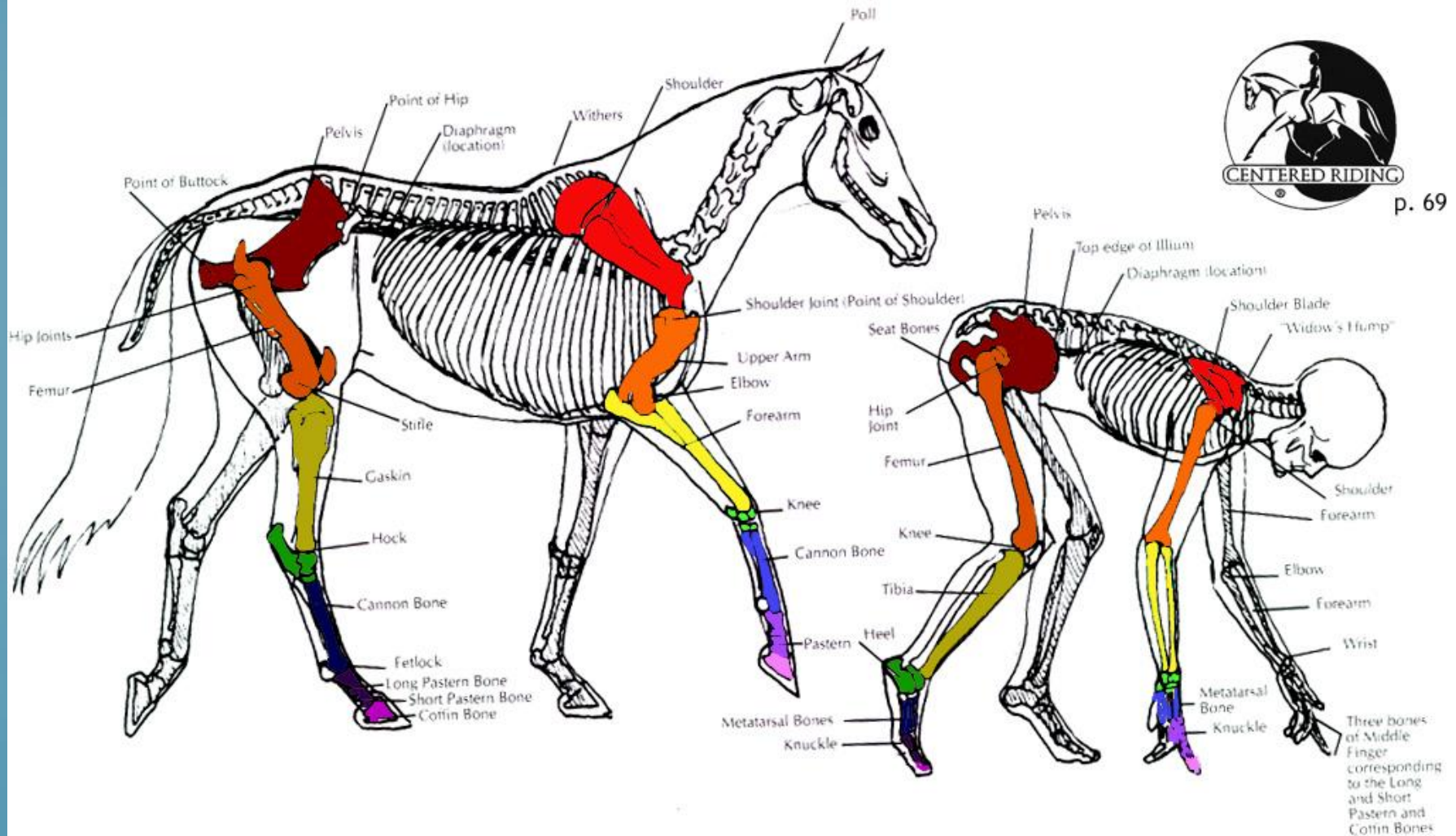


HIPPOTHERAPY DEFINITION

“The term hippotherapy refers to how physical therapy, occupational therapy, and speech-language pathology professionals use evidence-based practice and clinical reasoning to purposefully manipulate the movement of an equine to engage the sensorimotor system and create functional change in their clients. Use with other neuromotor and sensorimotor techniques, hippotherapy is part of a therapist’s integrated plan of care.” (American Hippotherapy Association, Fall 2014)



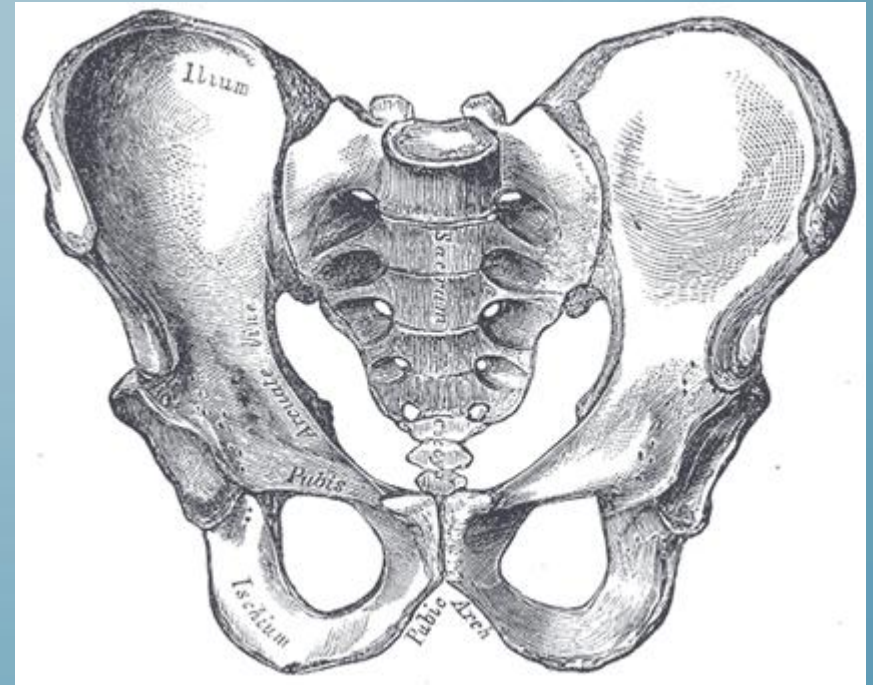
WHY IT WORKS



Horse Pelvis



Human Pelvis



DYNAMIC BASE OF SUPPORT



Compare the amount of strength and coordination needed to sit in a chair....

Vs.



Sitting on a horse's back!!!

MULTISENSORY EXPERIENCE



Smell & Noise



Vision



Touch



Vestibular & Proprioception

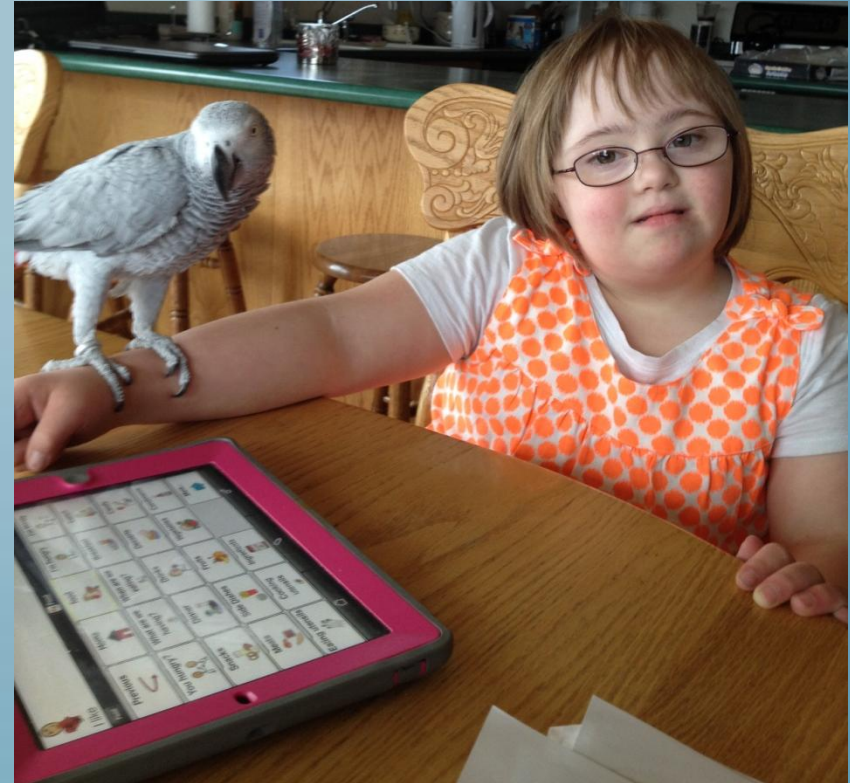
MOTIVATION



Which treatment looks more enjoyable and motivating?

ANIMAL ASSISTED THERAPY

- Therapist-guided experience designed to improve a patient's mental, physical, social and emotional functioning
- Deliberate inclusion of animal in treatment plan
(Nimer & Lundahl, 2007)
- Variety of different animals



PHYSICAL

- IMPROVED FINE MOTOR SKILLS
- IMPROVED WHEELCHAIR SKILLS
- IMPROVED BALANCE
- LOWER BLOOD PRESSURE

EMOTIONAL

- INCREASED SELF-ESTEEM
- REDUCED ANXIETY
- REDUCED LONELINESS

Social

- INCREASED VERBAL INTERACTION
- INCREASED ATTENTION SKILLS
- DEVELOPMENT OF LEISURE SKILLS

Cognitive

- INCREASED VOCABULARY
- IMPROVED LONG AND SHORT TERM MEMORY
- IMPROVED KNOWLEDGE OF CONCEPTS SUCH AS SIZE, COLOR, ETC.



PET PARTNERS

- Organization that registers animal therapy teams
- # Animals Registered:
 - 9,912 Dogs
 - 198 Cats
 - 202 Equine
 - 78 Rabbits
 - 29 Birds
 - 22 Guinea Pigs
 - 6 Pigs
 - 21 Llamas/Alpacas
 - 2 Rats



AAT ORGANIZATIONS



HIPPOTHERAPY RESEARCH

Hippotherapy- An Intervention to Habilitate Balance Deficits in Children with Movement Disorders: A Clinical Trial

(Silkwood-Sherer, Killian, Long & Martin, 2012)

- ❖ Improved balance and performance of daily life skills
- ❖ 5-16 years of age, 12 total sessions, measured pre and post with PBS & ASKp

Changes in dynamic trunk/head stability and functional reach after hippotherapy

(Shurtleff, Standeven, & Engsberg, 2009)

- ❖ Improved trunk/head stability and UE reaching and accuracy
- ❖ 5-13 years of age, 12 total sessions, measured pre, post, and follow up with c.
Video motion capture barrel test and upper extremity functional reach test

HIPPOTHERAPY RESEARCH

Effect of a hippotherapy intervention program on static balance and strength in adolescents with intellectual disabilities

(Giagazoglou, Abratzi, Dipla, Liga & Kellis, 2012)

- ❖ Significant improvements in strength and complex balance
- ❖ Average 15 years of age, 20 total sessions, Measured pre and post with EPS Pressure platform with different positions,

Use of hippotherapy in gait training for hemiparetic post-stroke

(Beinotti, Correia, Christofolletti, & Borges, 2010)

- ❖ Positive influence on gait training with significant improvements in motor deficits of lower limbs and balance
- ❖ 30-85 years of age, 48 total sessions, measured pre, post, and follow up with FAC, Fugl-Meyer Scale (lower limbs and balance sub items), Berg Balance Scale, functional assessment of gait (cadence)

HIPPOTHERAPY RESEARCH

Hippotherapy in adult patients with chronic brain disorders: A pilot study

(Sunwood, Chang, Kwon, Kim, Lee, Kim, 2012)

- ❖ Significant improvements balance and gait speed- sustained 2 months after hippotherapy
- ❖ Average 42 years of age, 16 total sessions, Measured pre and post and follow up with Berg Balance scale, Tinetti Performance- oriented mobility assessment, 10 meter walking test, functional ambulatory category, Korean Beck Depression Inventory, Hamilton Depression Rating Scale

Effects of hippotherapy on postural stability, in persons with multiple sclerosis: A pilot study

(Silkwood-Shere & Warmiber, 2007)

- ❖ Significant improvements in balance and postural control and stability
- ❖ 24-72 years of age, 14 total sessions, measured pre, post with Berg Balance Scale (BBS) and Tinetti Performance Oriented Mobility Assessment (POMA)

HIPPOTHERAPY RESEARCH

The effect of hippotherapy on functional outcomes for children with disabilities: A pilot study

(Murphy, Kahn-D'Angelo, Gleason, 2008)

- ❖ Improvements in functional outcomes
- ❖ 5-9 years of age, 24 total sessions, Measured with Goal Attainment Scale

The effectiveness of hippotherapy for children with learning disabilities

(Macauley & Gutierrez, 2004)

- ❖ *Improvement of speech and language abilities along with additional benefits of improved motivation and attention*
- ❖ 9-12 years of age, 12 total sessions, measured with satisfaction questionnaire

ANIMAL ASSISTED THERAPY RESEARCH

The effect of a therapy dog on the communication skills of an adult with aphasia

(LaFrance, C., Garcia, L.J., Labreche, J., 2007)

- ❖ Presence of dog has potential to stimulate overt social verbal and nonverbal communication
- ❖ 61 years of age, 11 total sessions, Measured with overt verbal and nonverbal behaviors

Animal-assisted therapy for persons with aphasia: A pilot study

(Macauley, 2006)

- ❖ *Increased motivation, less stressed, lighter session atmosphere*
- ❖ 59-67 years of age, 12 total sessions, measured with Western Aphasia Battery and client satisfaction questionnaire

ANIMAL ASSISTED THERAPY RESEARCH

Animal-assisted therapy at an outpatient pain management clinic
(Marcus, Bernstein, Constantin, Kunkel, Breuer & Hanlon, 2012)

- ❖ Significant improvements in mood, distress and pain relief
- ❖ Measured with self-reported pain, fatigue, and emotional distress 11 point numeric rating scale

Animal-Assisted Therapy: A Meta-Analysis (Nimer & Lundahl, 2007)

- ❖ *AAT improves outcomes for autism spectrum symptoms, medical difficulties, behavioral problems, and emotional well being*
- ❖ 49 studies reviewed

OCCUPATIONAL THERAPY TREATMENT: HIPPO THERAPY

Fine motor skills

Postural control

Upper body strengthening

Core strengthening

Functional mobility

Sensory regulation/modulation

Cognition



SPEECH THERAPY

TREATMENT: HIPPO THERAPY

Hippotherapy

Feeding and Swallowing Therapy-better range of motion, strengthening, less drooling

Voice therapy-improved posture, voice quality

Articulation therapy-better discourse, fluency

Social Skills

Facilitates the Physiological Systems for Speech and Language

Expressive and Receptive Language

Cognitive Linguistic Therapy working with memory, sequencing, organization, planning



OCCUPATIONAL THERAPY TREATMENT: ANIMAL ASSISTED THERAPY

ADL: dressing, bathing, grooming, hygiene

IADL: home management

Fine motor skills: grooming, petting, braiding, bathing, treats, tying, clips

Upper body skills/ Core strengthening: bilateral coordination: brushing/grooming/bathing, throwing

Strengthening: leading/ walking



SPEECH THERAPY TREATMENT: ANIMAL ASSISTED THERAPY

Animal Assisted Therapy

Utilizing the animals during reading tasks

Direction following for concepts

Expressive and Receptive Language Skill

Strengthening

Cognitive Linguistic therapy



Video of Client with a Brain Injury

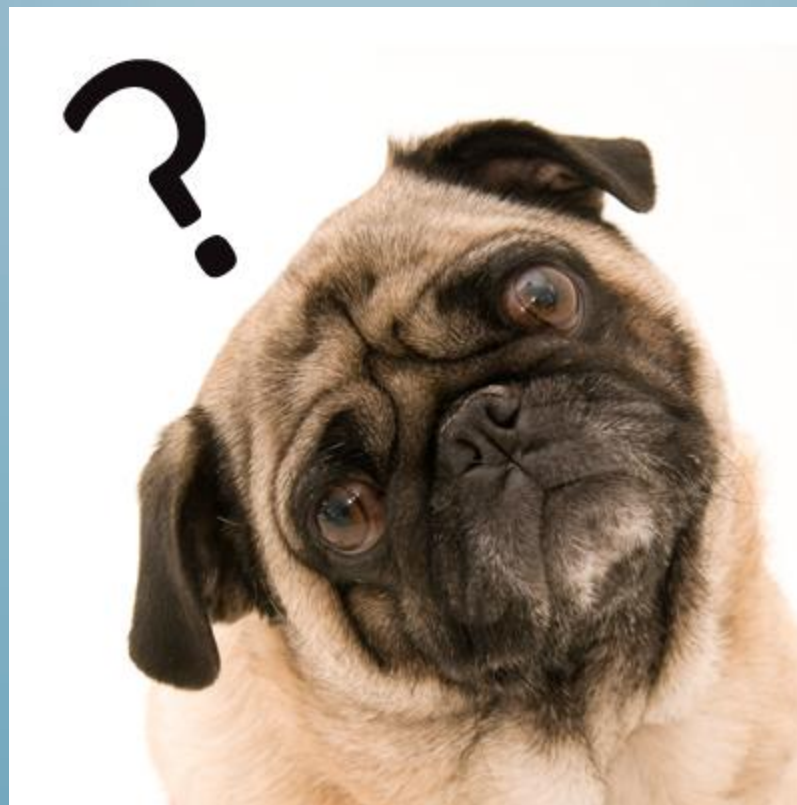




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QUESTIONS?





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