Equine Assisted Therapy, Hippotherapy, Equine Assisted Activities, Adaptive Riding, Therapeutic Riding.....

What Do They All Mean????

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**Terminology**

**Equine Assisted Therapy (EAT):** Equine Assisted Therapy is the term used when an Occupational Therapist, Physical Therapist, Speech-Language Pathologist, or other licensed health professional (e.g. Psychotherapist) who is specially trained uses a specially trained horse and/or the equine environment to achieve functional outcomes in a patient (while working within their discipline’s scope of practice). The therapist has the ability and luxury through their university education and special training to utilize anything in one’s environment to create an activity that will address impairments in a patient. Thus, Equine Assisted Therapy may include activities such as grooming a horse, tacking a horse, barn related work, ground skills with the horse, riding skills, etc. which may be used to address fine motor skills, gross motor skills, motor planning, core strength, balance, bilateral integration, visual motor skills, visual perception, timing, sequencing, attention to task, level of arousal, coping skills, language and oral motor skills, coordination and linguistics, etc.

According to the American Hippotherapy Association, Inc.: “Equine Assisted Therapy is a goal directed intervention in which a specially trained equine is an integral part of the treatment process. EAT is directed and/or provided by a human/health service professional with specific expertise and within the scope of their practice.”

**Hippotherapy (HPOT):** Hippotherapy is specific to the three professional designations of Physical Therapist, Occupational Therapist, and Speech-Language Pathologist. Hippotherapy is not a special type of therapy; it is a treatment strategy as described in the following:

Hippotherapy is a Physical Therapy, Occupational Therapy, or Speech-Language Pathology treatment strategy that utilizes equine movement. Hippotherapy literally means “treatment with the help of the horse” from the Greek word, “hippos” meaning horse. Specially trained Physical Therapists, Occupational Therapists, and Speech-Language Pathologists can use this treatment strategy for their patients. In Hippotherapy, the horse influences the patient rather than the patient controlling the horse. The patient is positioned on the horse and actively responds to its movement. The therapist directs the movement of the horse; analyzes the patient’s responses; and adjusts the treatment accordingly. This strategy is used as part of an integrated treatment program to achieve functional outcomes. Hippotherapy is classified under the umbrella term, Equine Assisted Therapy, and is not a special type of therapy - it is a treatment strategy for Occupational Therapists, Physical Therapists, and Speech-Language Pathologists (specially trained in the movement of the horse) to incorporate into a patient’s total Plan Of Care.

According to the American Hippotherapy Association, Inc.: “Hippotherapy is a Physical, Occupational, and Speech-Language Therapy treatment strategy that utilizes equine movement as part of an integrated intervention program to achieve functional outcomes. Equine movement provides multidimensional movement, which is variable, rhythmic and repetitive. The horse provides a dynamic base of support, making it an excellent facilitator for increasing trunk strength and control, balance, building overall postural strength and endurance, addressing weight bearing, and motor planning. Equine movement offers well-modulated sensory input to vestibular, proprioceptive, tactile and visual channels. During gait transitions, the patient must perform subtle adjustments in the trunk to maintain a stable position. When a patient is sitting forward astride the horse, the horse’s walking gait imparts movement responses remarkably similar to normal human gait. The effects of equine movement on postural control, sensory
systems, and motor planning can be used to facilitate coordination and timing, grading of responses, respiratory control, sensory integration skills and attention skills. Equine movement can be used to facilitate the neurophysiologic systems that support all of our functional daily living skills.”

Dr. Daniel Bluestone, Neurologist, conducted a study in 1999 to see if there were changes in the brain when the therapist incorporated Hippotherapy into a patient’s Plan of Care. The results concluded that Hippotherapy produced changes in the cerebellum and motor systems within the cerebrum of the brain. The reworking of these neural networks helped to facilitate particular movements and the repetition of the horses walk reinforced these pathways to help improve motor function. The sensory/motor input from Hippotherapy helped to remodel the neural network for improvement in motor functioning.

**Tandem Hippotherapy (T-HPOT):** Tandem Hippotherapy is rarely used, but can be used in very specific situations - it is a strategy in which the therapist sits on the horse behind the patient in order to provide specific therapeutic handling as part of an integrated treatment. The therapist determines if T-HPOT is indicated for the patient, and consults with the specially trained or certified instructor or trained horse handler to establish if the facility has the resources to conduct a safe T-HPOT session and to choose the appropriate horse. The combined weight of the patient and therapist cannot exceed 20% of horse’s weight.

**Equine Assisted Activities:** Equine Assisted Activities is a broad term which encompasses any activity in an equine environment, mounted or un-mounted, where the goal is not therapy, but activity driven (i.e. adaptive riding, grooming, horsemanship, stable management, shows, parades, etc for pleasure and/or recreation). Equine Assisted Activities are NOT therapy.

**Therapeutic Riding:** is a term that has been used for many years to encompass the variety of equine activities in which people with disabilities participate. Though still commonly used, this ‘umbrella’ term has caused confusion among the medical community and general population as it implies therapy, but is in no way therapy as it is not a therapy session conducted by a licensed medical professional.

**Adaptive Riding:** is a term which is (in some arenas) replacing the above, Therapeutic Riding, due to the confusion in the medical community and general population implying that the horseback riding was a therapy treatment carried out by a therapist. Adaptive Riding is horseback riding and horsemanship for where instruction and/or equipment may be modified by a specially trained riding instructor for a person with a disability to ensure successful progression of equestrian skills. The new umbrella term for equine activities for persons with a disability is Equine Assisted Activities and Adaptive Riding is classified under that umbrella term. The Professional Association for Therapeutic Horsemanship (PATH, Intl.) does not accept the term Adaptive Riding – they believe that their lessons are more than horseback riding lessons even though a riding instructor does not have the medical/therapy education necessary for that to be true.

**Hippotherapist:** The term ‘Hippotherapist’ is sometimes seen in print but is a misnomer. There really is no such thing. People utilizing Hippotherapy in a therapy session are Physical Therapists, Occupational Therapists, or Speech-Language Pathologists. Hippotherapy is a treatment strategy used by these skilled and specially trained practitioners to achieve functional outcomes, not a separate therapy.

**Equine Therapy, Horseback Riding Therapy, Therapy Riding, etc.:** While these terms are sometimes seen or heard, they do not exist. If the term “Therapy” is being used, then a licensed therapist MUST be providing the services and it would be considered Equine Assisted Therapy or Hippotherapy. To use the term “Therapy” when a licensed therapist is not providing the services is considered practicing without a license and is illegal.
Qualifications for someone to utilize Equine Assisted Therapy and/or Hippotherapy as a treatment strategy:

- Graduated from an accredited Occupational Therapy, Physical Therapy or Speech-Language Pathology program (all Masters or Doctorate degrees)
  - OT/PT/SLP assistants (COTA, PTA, SLPA) may also utilize Equine Assisted Therapy/Hippotherapy in a treatment session, but it must be under the supervision of a licensed OT/PT/SLP just as they must be supervised in any other therapy setting.
- Pass national board exams in Occupational Therapy, Physical Therapy, or Speech-Language Pathology (or the COTA, PTA, SLPA national board exams)
- Licensed as an Occupational Therapist, Physical Therapist or Speech-Language Pathologist (or their respective assistants) in the state where services are provided
- Completed extensive continuing education through the American Hippotherapy Association, Inc.
  - **Level I Therapist**: has completed the Level I Courses with AHA, Inc.
  - **Level II Therapist**: has completed the Level I and Level II Courses with AHA, Inc.
  - **AHCB Hippotherapy Certified Therapist – Entry Level**: Therapists (OT, COTA, PT, PTA, SLP, SLPA) who have attended both Level I and Level II AHA, Inc. courses may sit for this exam. Successful completion of this national board written exam shows a baseline level of competency in equine movement/related activities as a treatment strategy.
  - **AHCB Hippotherapy Clinical Specialist (HPCS)**: Board Certified in Hippotherapy. An experienced, licensed therapist (PT, OT, SLP) who has demonstrated an advanced level of knowledge in using equine movement/related activities as a treatment strategy by successfully completing a national board written examination.
- Has extensive horse experience including the ability to ride and condition/train the therapy horses OR has a qualified horse person on staff who rides, conditions, and trains the horses.
  - **If the therapist does not have the horse experience it is still critical that they have a thorough understanding of the movement of the horse.**

ADDITIONAL Qualifications if using Tandem Hippotherapy:

- Tandem Hippotherapy is very rarely utilized anymore as it can put undue stress on the therapy horse; however, when it is utilized, it is in only certain situations and is used for the least amount of time possible.
- A therapist who utilizes Tandem Hippotherapy must have riding skills at a very high level, as having two persons on a horse simultaneously increases the safety risk significantly.
- A specially trained team of sidewalkers must be in place that can manage an emergency given two people are on the horse, one being an adult.

Goals for patients when Equine Assisted Therapy and/or Hippotherapy are utilized in their OT/PT/SLP therapy sessions and overall Plan of Care:

- Will be related to function in an individual’s daily life
  - Components may include balance, motor planning, sensory processing, postural control, core strength/stability, language, oral motor function, sequencing, attention, fine motor skills, gross motor skills, etc.
- Will not be horseback riding skills
Cost of therapy when Equine Assisted Therapy and/or Hippotherapy are utilized:
- Will be at or above (due to specialty) the customary cost of an Occupational Therapy, Physical Therapy, or Speech-Language Pathology session in your region
- CAN be submitted to insurance for reimbursement if your policy has Occupational Therapy, Physical Therapy, or Speech-Language Pathology benefits
  - Note: You must verify that Animal Assisted Therapy, Equine Assisted Therapy, Hippotherapy, etc. are NOT listed as a strategy that is excluded from your coverage BEFORE submitting for reimbursement

Who Can Do EAA – Equine Assisted Activities?

Qualifications for someone to teach Adaptive/Therapeutic Riding:
- Is a horseback riding and horsemanship instructor for persons who have a disability
- Must have a basic foundation in horsemanship and riding
- Must be 18 years of age or older
- Has the skills to teach able-bodied persons basic riding skills, at minimum
- Has been taught basic information about a variety of disabilities
- Has been taught what disabilities are a precaution or contraindication to riding a horse
- Must have First Aid and CPR certifications
- Preferably is a PATH, Int’l. (previously NARHA) Certified Therapeutic Riding Instructor - this is the national organization with the standards an instructor must meet in order to become certified

Goals for a rider in an Adaptive/Therapeutic Riding Program:
- To ride a horse as independently as possible and/or learn good horsemanship skills
  - Skills may include holding the reins correctly, steering, riding at different gaits of the horse (walk, trot, canter/lope), maintaining proper leg and seat positioning while sitting in the saddle, grooming, tacking, horse care (e.g. feeding, cleaning stalls/barn, etc.), breeds of horses, conformation, and learning basic information about a horse’s health and basic maintenance (e.g. shoeing, dentals, vaccines, etc.)
  - This could be for leisure or could be for sport if the individual has an interest in competing in horseback riding (even up to the Para-Olympic level in some cases).
- IF the Therapeutic/Adaptive Riding instructor is also a certified Special Education teacher or a Certified Adaptive PE teacher (and the rider is participating in the program for educational or Adaptive PE purposes), then Educational and Physical Educational goals may also be written

Cost to participate in an Adaptive/Therapeutic Riding Program:
- Will be in the same range as is customary for an able-bodied horseback riding lesson in your region
- CANNOT be submitted for insurance reimbursement -- this is a recreational, competition, sport or educational activity, not a medical service, and thus is private pay only, just as any able-bodied horseback riding lesson.
Why Use a Horse in Occupational Therapy, Physical Therapy, or Speech-Language Pathology?

The horse’s walk provides sensory input through movement, which is variable, rhythmic, and repetitive. The resultant movement responses in the patient are similar to human movement patterns of the pelvis while walking. The variability of the horse’s gait enables the therapist to grade the degree of sensory input to the patient, and then utilize this movement in combination with other treatment strategies to achieve desired results. In a patient’s occupational therapy, physical therapy, or speech-language pathology treatment, when 20 - 30 minutes incorporates the treatment strategy of Hippotherapy, the patient receives more than 3,000 impulses to the central nervous system. Patients respond enthusiastically to this enjoyable experience in a natural setting.

According to the American Hippotherapy Association, Inc.:

• “The three-dimensional movement of the horse’s pelvis is within 1-2 cm of the movement of the human pelvis at the walk. This three-dimensional movement has been shown to affect the Central Nervous System which in turn stimulates the Motor Pathways and the Vestibular System in the Human Brain. This movement naturally affects all the systems in the human body. “

• “The horse’s movement has rhythmicity and symmetry providing a dynamic base of support and multiple planes of movement. It provides multi-sensory input, proprioception, movement through space, repetition, and variability. All of this is provided within a natural environment with the therapist able to modify both the movement of the horse and the environment. This encourages the patient to shift from his or her current preferred pattern of behavior in order to achieve new functional outcomes/behaviors. Patients explore, self-organize, make postural adjustments, and problem solve in a highly motivating and natural environment. The resultant development is an adapted response and the ability to use new movement strategies and incorporate them safely and appropriately in to their normal environment.”

History of Hippotherapy

Before 1900

• 460-377 B.C. – Hippocrates in ancient Greece wrote a chapter on ‘Natural Exercise’ and mentions riding
• 1569 – Merkurialis of Italy wrote on ‘The Art of Gymnastics’ mentioning the horse and riding
• 1780 – Tissot of France in his book ‘Medical and Surgical Gymnastics’ regarded riding at the walk as the most beneficial gait. He was also the first to describe the effects of too much riding as well as contraindications.

Since 1900

• In 1952 at the Helsinki Olympics, Liz Hartel won a silver medal in equestrian sports and told the world how riding had helped her recover from polio.
• In the 1960’s therapeutic riding centers developed throughout Europe, Canada and the US.
• In the 1960’s the horse began to be viewed as an adjunct to physical therapy in Germany, Switzerland, and Austria. This endeavor was called ‘Hippotherapy’.
• In 1969 the North American Riding for the Handicapped Association (NARHA) was established in the United States.
• In the 1970’s physical therapists in the United States began to develop treatment uses for the movement of the horse.
• In 1987 a group of 18 American and Canadian therapists went to Germany to study Hippotherapy and began development of a standardized Hippotherapy curriculum.
• 1988-1992 – Further development of standardized curricula on Hippotherapy by the National Hippotherapy Curriculum Development Committee.
• 1993 – The American Hippotherapy Association was approved as the first Section of NARHA.
• 1994 – AHA Inc. established therapist registration and set standards of practice for Hippotherapy.
• 1999 – American Hippotherapy Certification Board was established and the first Hippotherapy Clinical Specialists (HPCS) examination was written.
• 1999 - Hippotherapy is endorsed by the respective national associations (APTA & AOTA & ASHA) as a treatment tool/strategy for Physical Therapists, Occupational Therapists, and Speech-Language Pathologists

Principles of Hippotherapy

➢ The horse’s movement promotes active responses in the patient.
➢ Variations in the horse’s movement, as directed by the therapist, promote variations in the patient’s responses.
➢ Patient responses in Hippotherapy are intended to affect function.

General Indications for Hippotherapy

➢ Population: children and adults with mild to severe neuromusculoskeletal dysfunction
➢ Age: Recommended minimum age is 2, but for experienced therapists, it may be determined that a child may benefit from incorporating Hippotherapy into their therapy plan of care as early as 18 months.
   o Adult: should be able to sit for a short period (3-5 seconds) on a firm surface without back support, otherwise, sitting on the moving horse may be too difficult and fatiguing.
   o Child: Equine movement can be effective in promoting the development of sitting balance. If the child does not have sitting balance on a static surface, the therapist must be prepared to provide moderate to maximal assistance to the mounted patient or use alternative positions or props.
➢ Therapist: should have knowledge and at least 2 or more years experience with treating the population and age group of the patient off the horse to be able to incorporate the movement of the horse into the therapy treatment.
Precautions and Contraindications for all on-horse Equine Assisted Activities and Therapies

- If the movement activity will cause a decrease in the rider/patient’s function, an increase in pain or generally aggravate the medical condition, the medical condition, Equine Assisted Activities or Therapies may not be an appropriate choice.
- If this interaction with a horse is detrimental to the rider/patient or the horse, Equine Assisted Activities or Therapies may be contraindicated.
- The outdoor environment for Equine Assisted Activities or Therapies is much less controlled than that of an indoor sport or therapy clinic. If the facility cannot accommodate the rider/patient’s equipment needs or the environment will aggravate their condition, Equine Assisted Activities or Therapies may not be appropriate.
- The fall off a horse would average between 4 to 6 feet above the ground. Such a fall may cause a greater functional impairment. The possibility of a fall should be given careful consideration, and may lead to the informed decision that Equine Assisted Activities or Therapies are not appropriate.
- Even the well trained therapy horse is sometimes unpredictable, subject to its instinctive fight or flight responses. Horses are large, move quickly and can be dangerous to the rider/patient who is unable to respond appropriately.
- The Hippotherapy team most often involves the therapist, the horse handler, the therapy horse, additional sidewalkers/horse handlers. If any members of the team are not qualified or trained in appropriate Hippotherapy procedures, including safety; or, if an essential member of the team is absent, then Hippotherapy is contraindicated.

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<td>Delayed Speech and Language</td>
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<td>Poor Oral Motor Function</td>
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Medical Conditions:
- Impairments:
**Absolute Contraindications**

- Atlantoaxial Instability: with neurologic signs as assessed by a qualified MD
  - A displacement of the C1 vertebra in relation to the C2 vertebra; sometimes seen in individuals with Down Syndrome or Juvenile Rheumatoid Arthritis
- Active mental health disorders that would be unsafe
- Fire setting, suicidal, animal abuse, violent behavior, etc
- Acute herniated disc with or without nerve root compression
- Chiari Malformation with neurologic symptoms
- Coxa Arthrosis: degeneration of the hip joint; the femoral head is flattened; functions like a hinge joint versus a ball and socket joint.
  - Sitting on a horse puts extreme stress on the joint.
- Down Syndrome: Younger than 2 years old
- Grand Mal Seizures: uncontrolled by medications
- Hemophilia with recent history of bleeding episodes
- Indwelling urethral catheters (females)
- Medical conditions during acute exacerbations
  - RA, HNP, MS, Diabetes, etc
- Open wounds over a weight bearing surface
- Pathologic fractures without successful treatment of the underlying pathology
  - Severe Osteoporosis, Osteogenesis Imperfecta, bone tumor, etc.
- Tethered cord with symptoms
- Unstable spine and/or Internal hardware of fixation/fusion