

## ***Physical Benefits***

***Improved balance-*** As the horse moves, the rider is constantly thrown off-balance, requiring that the rider's muscles contract and relax in an attempt to rebalance. This exercise reaches deep muscles not accessible in conventional physical therapy. The three-dimensional rhythmical movement of the horse is similar to the motion of walking, teaching rhythmical patterns to the muscles of the legs and trunk. By placing the rider in different positions on the horse, we can work different sets of muscles. Stopping and starting the horse and changing speed and direction increase the dynamic input of the horse's movement and therefore the consequential benefits to the rider.

***Strengthened muscles-*** Muscles are strengthened by the increased use involved in riding. Even though riding is exercise, it is perceived as enjoyment, and therefore the rider has increased tolerance and motivation to lengthen the period of exercise.

***Improved coordination, faster reflexes, and better motor planning-*** Riding a horse requires a great deal of coordination in order to get the desired response from the horse. Since the horse provides instant feedback to every action by the rider, it is easy to know when you have given the correct cue. Repetition of patterned movements required in controlling a horse quickens the reflexes and aids in motor planning.

***Stretching and relaxing of tight or spastic muscles-*** Sitting on a horse requires stretching of the adductor muscles of the thighs. This is accomplished by pre-stretching prior to mounting the horse, and starting the rider off on a narrow horse, gradually working to wider and wider horses. Gravity helps to stretch the muscles in front of the leg as the rider sits on the horse without stirrups. Riding, with stirrups with heels level or down, helps to stretch the heel cords and calf muscles. Stomach and back muscles are stimulated, stretched and strengthened as the rider is encouraged to maintain an upright posture against the movement of the horse. Arm and hand muscles are stretched as part of routine exercises on the horse and by the act of holding and using the reins.

***Decreased spasticity-*** Spasticity is reduced by the rhythmic motion of the horse. The warmth of the horse may aid in relaxation, especially of the legs. Sitting astride a horse helps to break up extensor spasms of the lower limbs. Holding the reins helps to break flexor spasm patterns of the upper limbs. Many of the developmental vaulting positions are also designed to break up or reduce spasticity. The normalizing of muscle tone that occurs with mounted work also decreases spasticity.

***Increased range of motion of the joints-*** As spasticity is reduced, range of motion increases. As proximal stability increases (because of the strengthening of core muscle groups while riding) distal coordination increases. This stabilizes the rider through the many mounted activities that increase range in motion throughout all four limbs. Range of motion is also improved by the act of mounting and dismounting, changing riding positions, using physical aides to cue the horse, stretches on the horse and reaching games while riding.

***Reduction of abnormal movement patterns-*** If spasticity is reduced and range of motion increased, it follows that abnormal movements will be inhibited. Relaxation techniques while riding also help to inhibit abnormal movement. As the riders sit and relax into the 3 dimensional movement of the horse, their bodies begin to relax and receive the symmetrical stimulation produced by the equine. This

promotes correct body alignment within the rider. As the rider experiences longer periods of symmetrical alignment other activities are introduced.

***Improved respiration and circulation-*** Since all parts of the body are involved with balancing on the horse and following its movements through gait transitions and changes in speed, direction, and rider position, even riding the horse at a walk increases respiration and circulation. The lower body in particular is receiving a constant “massage” as it is always in contact with the barrel of the horse.

***Improved appetite and digestion-*** Like all forms of exercise, riding stimulates the appetite. The digestive tract is also stimulated, increasing the efficiency of digestion.

***Sensory integration-*** Riding stimulates the tactile senses both through touch and environmental stimuli. The vestibular system is also stimulated by the movement of the horse, changes in direction and speed. The olfactory system responds to the many smells involved in a stable and ranch environment. Vision is used in balance, controlling the direction of the horse, and motor planning through the activities. The many sounds of a farm help to involve the auditory system. All of these senses work together and are integrated in the act of riding. In addition, proprioception is improved as the rider’s receptors (that give information from our muscles, tendons, ligaments and joints) are activated. Sensory motor integration systems can be calmed through deep pressure activities such as riding in a weight bearing “2 point” on the horse’s rhythmically slow moving shoulders. Increasing the movement of the horse (within the gait or by changing gait) can stimulate and organize a nervous integration system.

## ***Psychological Benefits***

***General sense of well-being-*** Exercise, fresh air, riding in fields/woods/arena, developing new skills, enjoying a new sport/activity, meeting new people, and bonding with an accepting/non-judging living creature away from hospitals, doctors office, therapy rooms, or home all help to promote a sense of well-being and independence.

***Improved self-confidence*** -Confidence is gained by mastering a skill normally performed by able-bodied people. The ability to control an animal much larger and stronger than oneself is a great confidence builder. Participating in events such as shows and enjoying mounted games add to the sense of achievement. Focusing on what a rider’s strengths and goals are creates a fertile atmosphere for growth. As the rider learns to develop a list of what they “can do” the list of “can’t do” becomes smaller. For instance, if a rider can not use their lower leg they learn to use their thigh and upper body to move. If the rider can not feel the left side of their body, they learn to use the right side of their body and the input from their horse to tell them what their left side is doing. **The horse can help them focus on their strengths as the horse learns quickly to respond to whatever the rider can do.**

***Increased interest in the outside world-*** For those confined by a disability, the world tends to shrink in size. Riding increases interest in what is happening around the rider, as the rider explores the world from the back of a horse. Even exercising becomes interesting when done on horseback. Interacting with other riders, volunteers, center staff can create interest in new social interactions and possibilities.

***Increased interest in one's own life-***The excitement of riding and the experiences involved with it stimulate the rider, encouraging them to speak and communicate about it. They have something positive and interesting to talk about and look forward to.

***Improved risk-taking abilities-*** Because riding is a very different experience and horses a very different animal for most new riders it inherently allows for the potential of fear and opportunity to conquer them. The rider learns to work through and master fears by developing management skills. They are encouraged to discuss and identify the cause of fears with the instructor. The riders will be shown how to minimize the risk of what they fear in order to make the situation safer and therefore manage the risk to the point that they are comfortable. Then the rider will be encouraged to practice the skills in situations that gradually increase in perceived "risk". For instance, if a rider is afraid that the horse will go too fast, they will be shown how to effectively slow the horse thereby allowing the rider to control the risk and therefore manage the fear. They may start by learning how to go from a slow walk to a halt and gradually increase the pace as their confidence in their own ability to control the situation increases.

***Increase risk-mgmt skills*** – Although a rider may not cue into risks to themselves and in fact tend to put themselves and others in risky situations, they are often more willing to respond to the scenario of the horse that trusts and needs the rider to keep them safe. As the relationship to the horse is developed they often value the horse more than they do themselves and other people. They see that the horse does not manipulate/change rules/trick others/try to get reactions from others. The horse tries to listen to and follow the direction of its human partner. In return the rider keeps the trusting horse safe by paying attention to and staying away from situations that are not safe for the horse. These skills can transfer to the rider keeping him/herself and others safe.

***Development of patience-***Since the horse has a mind of its own, the rider learns patience as he or she attempts to perform skills on the horse when the horse is not cooperating. Repetition of basic riding principles also helps to develop patience. As they are encouraged to see the mounted experience through the eyes of their partner in the ride (the horse), they learn to work with the horse. As they learn about a horse's "processing" time they learn that preparation and "steps are required to communicate with their horse. And all that takes time and losing patience puts them back in the beginning of the process.

***Emotional control and self-discipline-*** As riders learn about the equine, its natural instincts and herd behavior, they learn what is needed to effectively communicate with them. The horse is a straight forward creature that responds to body language and simple verbal cues. The horse will immediately respond to human physical cues (body language) in a manner that is consistent and "true/honest". This trait allows the people interacting with the horse to get immediate feedback to their behavior (positive and negative). Riders are rewarded with a willing and responsive horse when they act in a calm predictable manner. As riders develop a relationship with a horse that is strengthened by positive interaction from both sides, they learn to control their actions for the good of the horse. In society people tend to make allowances for behavior in an effort to control the outcome. Horses can't do this. They respond immediately, even if it is only a small ear movement or tensing in the neck muscles. This gives the rider an opportunity to reflect (with the instructor) on the response they are getting from the horse, analyse what they are doing that is eliciting this response from the horse and then decide to manage their behavior so that they can get the horse back on track as part of their "team".

***Sense of normality-*** The farm with its horses is a very different “place” from what riders are used to. They come in with no history (poor grades, negative behavior, under achieving), that dictates how they will move forward. All the “rules” that they have come to used to negotiate their world are out the door. The horse really doesn’t care what kind of jeans and shoes they wear. They start clean on the same level as every other individual who comes to the farm for the first time. The horse doesn’t know about them or judge them. The relationship is fresh and new, a clean slate. Everything has to be learned from the beginning. There are no pre-conceptions or expectations of what a rider can or will do. They are as “normal” as everyone else.

***Expansion of the sense of control of self, situations, and life -*** As the rider begins to develop the tools to effectively communicate with, handle, and ride the horse in ever increasing increments of difficulty, they develop a self awareness, and self confidence that transfers to other situations in their lives. The care of horses and the farm in which they live, allows for ample opportunities for individuals to learn other skills that can be used in other work settings. The social setting of Equine Assisted Activities promotes positive interactions with other riders, staff, and volunteers.

## ***Social Benefits***

***Friendship-*** Riders share a common interest in horses and the common experience of learning to ride -- a good foundation on which to build a friendship. Friendships start with conversations that revolve around their riding. Their common ground grows from there. Riders come to value the support they can give each other in their riding and this often transfers into other areas of their lives.

***Development of respect and love for animals-*** As riders learn about horses, their needs, behaviors and as they develop effective communication skills with the horse the bond they share becomes a partnership. They learn to put the needs of the horse first. Respect and love for the horse is a natural results of this positive interaction and can translate to a healthier relationship with self and others.

***Increased experiences-*** Learning to ride is only one part of the Equine Assisted Activities experience. From tacking and grooming to trail riding, from going to horse shows to learning the parts of a horse, the rider is constantly experiencing and growing. The horse also provides the rider with the ability to go places otherwise inaccessible due to the disability. Besides riding participants can learn about horse care, handling, and training. They can learn groundwork, lunging, driving, and vaulting (gymnastics on the horse). The horse farm is a large multi-faceted operation. The management and upkeep opens the doors to many other experiences.

***Enjoyment -*** There is no doubt about it, riding a horse is fun. Riders experience excitement and pleasure every time they come for a lesson.

## ***Educational Benefits***

***Remedial Reading-***Before one can read, it is necessary to recognize the difference in shapes, sizes, and even colors. These can be taught more easily on horseback, as part of games and activities. There is less resistance to learning when it is part of a riding lesson. Through the use of signs placed around the arena, letters can be taught, and reading of individual words by word recognition can also be learned. Games involving signs for "exit", "danger", "stop" etc., help to teach important life skills involving reading.

**Remedial Math**-Counting is learned by counting the horse's footsteps, objects around the arena, or even the horse's ears and legs. Number concepts are gained as the rider compares the number of legs on a horse to the number of his own legs. Addition and subtraction are taught through games involving throwing numbered foam dice and adding or subtracting the numbers. Because the concepts are taught through games, resistance to learning is decreased.

**Sequencing, patterning and motor planning**-Something as simple as holding and using a pencil requires a great deal of motor planning. Knowing which comes first in a sequence of events is an important part of most activities. These and other similar skills are taught on horseback through the use of obstacle courses, pole bending, drill team, and many other games and activities.

**Improved eye-hand coordination**-Eye hand coordination is necessary for such skills as writing. These skills are taught in tacking the horse, as well as various activities and exercises.

**Visual/spatial perception**-This includes our awareness of form and space, and our understanding relationships between forms in our environment. Included in this area are directionality (knowing right from left); space perception, which allows us to differentiate between items close in shape but spatially different (i.e. "h" versus "b"); form perception (i.e. differentiating "h" and "m"); figure ground (picking out an object from the background); and visual sequential memory (such as remembering symbols in a particular sequence or pattern). Both reading and math concepts involve visual spatial perception. Visual spatial perception improves as a natural result of control of the horse. Additional exercises are done on the horse to increase ability in this area.

**Differentiation**-The rider learns to differentiate significant from less significant stimuli in the environment. An improvement in this area occurs as the rider learns to attend to his horse and those things that may influence the horse as opposed to attending the environment in general.

## **What is Therapeutic Riding?**

Therapeutic Riding, which is under the umbrella of the Equine Assisted Activities and Learning, is the use of the horse and equine-oriented activities to achieve a variety of therapeutic goals. These include cognitive, physical, emotional, social, educational and behavioral goals.

Therapeutic riding is practiced in some form in most countries in the world. Great Britain formed the Riding for the Disabled (RDA) program initially to promote competition and equine sports for the disabled. Germany and Switzerland have been in the forefront of developing and establishing Hippotherapy as a medical model of equine-assisted therapy. NARHA in the United States puts forward a model that incorporates therapy, education, sport, and recreation/leisure activities.

- At some centers, the emphasis is on learning riding skills and eventually using these skills for recreational or sport purposes. These would include trail riding, driving, vaulting and competition (western, flatwork, and even jumping).
- An emphasis on education and/or psycho/social development usually includes educational, behavioral, social, and emotional growth. Specific goals in these areas are incorporated in the standard therapeutic riding lesson and may include grooming and tacking the horse.
- The therapy/medical model integrates principles of medical and/or psychological development into various uses of the horse. In this case, the use of medical practitioners such as physical therapists, occupational therapists, psychologists, speech therapists and others become an important part of the program. A specialized form of therapy called Hippotherapy is sometimes employed by physical, occupational and speech therapists who are trained in this area.
- Many centers use an integrated approach, involving all three of the above approaches. Most centers, as well, use a team approach to therapeutic riding. The team consists of some or all of the following: riding instructors, volunteers, educational specialists, behavioral specialists, and medical professionals.