

PHYSICAL AND COGNITIVE DISABILITIES

Disability Descriptions

The following are brief, non-medical descriptions of some disabilities and conditions of participants in therapeutic riding. This is not intended as a comprehensive explanation of a specific disability. Rather it is a general overview with an explanation of how therapeutic riding can be beneficial.

Amputation

Loss of one or more limbs; cause may be congenital, accidental or related to disease:

Characteristics: Impaired balance; asymmetry; loss of sensation; contiguous muscle weakness.

Benefits: Stimulates balance; strengthens muscles; provides an alternative sport or recreation activity.

Arthritis

Inflammatory disease of joints:

Types: Osteo, rheumatoid and juvenile rheumatoid.

Characteristics: Pain; lack of mobility; deformity; loss of strength.

Benefits: Gentle rhythmic movement to promote joint mobility and relieves pain.

Autism

A self-centered mental state from which reality tends to be excluded:

Characteristics: Unresponsiveness to the presence of others; withdrawal from physical contact; severely delayed and disordered language; self-stimulating behaviors; unusual or special fears; insensitivity to pain; unawareness of real dangers; hyperactive, passive, unusual behaviors such as smelling/tasting/licking/mouthing all objects; ritualistic behaviors; developmentally delayed, unusual response to sounds; clumsiness; social withdrawal; resistance to change.

Benefits: Interaction in a group setting stimulates interest away from self and toward others and the horses. Postural and verbal stimulation.

Cerebral Palsy

Brain damage occurring before, at, or shortly after birth; it is a non-progressive motor disorder:

Characteristics: *Spastic:* Hyper-tonicity with hyperactive stretch reflexes, muscle imbalances and equilibrium. Increased startle reflex and other pathological reflexes.

Athetoid: Random, indecisive movements, abnormal posturing and slow and deliberate speech.

Ataxic: Uncoordinated, poor balance, difficulty with quick, free movements.

Problems: Seizures, hearing defects, visual defects, general sensory impairment, perceptual problems, communication problems, mental retardation, emotional disturbance, learning disabilities.

Benefits: Normalization of tone, stimulation of postural and balance mechanisms, muscle strengthening and perceptual motor coordination.

Cerebral Vascular Accident-Stroke (CVA)

Hemorrhage in brain, which causes varying degrees of functional impairment:

Characteristics: Flaccid or spastic paralysis of arm and leg on one side of body; may impair cognition, speech, sight, balance, coordination and strength.

Benefits: Promotes symmetry, stimulates balance, posture, motor planning, speech, and socialization.

Developmental Disabilities (DD)

A general term applied to children functioning two or more years below grade level:

Characteristics: Varied but can include slow physical, motor and social development.

Benefits: Provides arena for success, opportunity for sport and recreation, stimulates body awareness.

Down Syndrome

Condition in which a person is born with an extra chromosome resulting in mental retardation and developmental delay:

Characteristics: Broad flat face, slanted eyes, neck and hands are often broad and short. Usually hypotonic, have hyper-mobile joints and tend to be short and slightly overweight. Prone to respiratory infections.

Benefits: Riding improves expressive and receptive language skills, gross and fine motor skills, balance, posture, muscle tone and coordination.

Emotional Disabilities

A congenital or acquired syndrome often compounded by learning and/or physical disabilities incorporating numerous other pathologies:

- Characteristics: Trouble coping with everyday life situations and interpersonal relations. Behaviors such as short attention span, avoidance, aggression, autism, paranoia or schizophrenia may be exhibited.
- Benefits: Increases feelings of self-confidence and self-awareness, and provides appropriate social outlet.

Epilepsy

Abnormal electrical activity of the brain marked by seizures with altered consciousness:

- Characteristics: *Petit Mal*: Brief loss of consciousness with loss of postural tone. May have jerky movements, blank expression.
- Grand Mal*: Major motor seizure. Loss of consciousness and postural tone; usually preceded by an aura.

Hearing Impairment

Congenital or acquired hearing loss varying from mild to profound:

- Characteristics: Communication difficulties – may use lip reading, finger spelling (manual alphabet) or sign language. Often phase out and have attention deficits.
- Benefits: Stimulates self-confidence, balance, posture and coordination. It also provides appropriate social outlets and interactions.

Learning Disabilities (LD)

Catch-all phrase for individuals who have problems processing, sequencing and problem solving but who appear to have otherwise normal intelligence skills:

- Characteristics: Short attention span, easily frustrated, immature.
- Benefits: Effects depend upon the particular disorder. Stimulates attention span, group skills, cooperation, language skills, posture and coordination.

Mental Retardation (MR)

Lack of ability to learn and perform at normal and acceptable levels. Degree of retardation is referred to as educable, trainable, severe, or profoundly retarded:

- Characteristics: Developmentally delayed in all areas. Short attention span.
- Benefits: Stimulates group activity skills, coordination, balance, posture, gross and fine motor skills and eye-hand coordination. Provides a structured learning environment.

Multiple Sclerosis (MS)

Progressive neurological disease with degeneration of brain and spinal cord nerves resulting in scar formation:

- Characteristics: Most commonly occurs in the 20-40 year-old range. It is progressive with periods of exacerbations and remissions. Fatigues easily. Symptoms include weakness, visual impairment, fatigue, loss of coordination and emotional sensitivity.
- Benefits: Maintains and strengthens weak muscles and provides opportunities for emotional therapy.

Muscular Dystrophy (MD)

Deficiency in muscle nutrition with degeneration of skeletal muscle. Hereditary disease that mainly affects males:

- Characteristics: Progressive muscular weakness, fatigues easily, sensitive to temperature extremes.
- Benefits: Provides opportunity for group activity, stimulates posture and trunk alignment, allows movement free of assistive devices.
- Problems: Lordosis, progressive loss of strength, respiratory infection.

Polio

Infectious viral disease:

- Characteristics: Flaccid paralysis, atrophy of skeletal muscle often with deformity.
- Benefits: Strengthens non-paralyzed muscles, stimulates posture.

Scoliosis

Lateral curvature of the spine with a C or S curve with rotary component:

Characteristics: Postural asymmetry. May wear scoliosis jacket or have had stabilization surgery.

Benefits: Stimulates postural symmetry, strengthens trunk muscles.

Spina Bifida

Congenital failure of vertebral arch closure with resultant damage to spinal cord:

Characteristics: Varying degrees of paralysis of the lower limbs coupled with sensory loss.
Problems: Hydrocephalus, incontinence, urinary tract infection, lordosis, scoliosis and hip dislocations.

Benefits: Stimulates posture and balance, improves muscle strength and self-image.

Spinal Cord Injury (SCI)

Trauma to the spinal cord resulting in a loss of neurological function:

Characteristics: Paralysis of muscles below the level of injury; can be flaccid or spastic. Fatigue, sensory loss, temperature regulation, pressure sores.

Benefits: Stimulates posture and balance, strengthens trunk muscles, is an option for sports participation and recreation.

Traumatic Brain Damage (TBI)

Accidental injury to the head resulting in intra-cranial bleeding with death of brain cells:

Characteristics: Gross and fine motor skills deficits. Often have impaired memory, speech, balance and/or vision. May have behavioral, psychological effects.

Benefits: Stimulates balance, posture, gross and fine motor skills, speech and perceptual skills.

Visual Impairment

Partial to total loss of sight:

Characteristics: Insecure posture, lack of visual memory, anterior center of gravity, fearfulness, developmental delay.

Benefits: Stimulates spatial awareness, proprioception, posture, and coordination. Provides social outlet, structured risk taking, and freedom of movement.