

Information Concerning Appalachian Therapeutic Riding Center

Appalachian Therapeutic Riding Center provides equestrian experiences for people with disabilities. Therapeutic riding uses equine-orientated activities for the purpose of contributing positively to the cognitive, physical, emotional and social well-being of people with disabilities. Therapeutic riding provides benefits in the areas of sport, recreation, education and therapy to individuals with a wide range of disabilities.

What are the Benefits: Physically, therapeutic riding can improve coordination and help normalize muscle tone. It can help improve posture and increase the functional range of motion, muscular strength, and flexibility. Perceptual and sensory motor skills may also improve. The psychological benefits for the individuals who participate include improved motivation, self-esteem and confidence. Therapeutic riding enhances the development of cognitive skills and allows the participant to improve socialization skills and learn team work.

How do you qualify to participate in the Appalachian Therapeutic Riding Center program?

- Riders over the age of two and weighing no more than 200 pounds
- Riders have appropriate behavior to maintain safety

The following conditions ARE contraindicated for therapeutic riding:

- Structural scoliosis greater than 30 degrees
- Uncontrolled seizures
- Positive X-Ray for Atlantoaxial Instability (see additional information)
- Tethered Cord or Chiari II Malformation
- Hip subluxation, dislocation, or degeneration
- Indwelling catheter
- Spinal Cord Injury above a T-6
- Hemophilia

The following conditions MAY BE Contraindicated:

- Osteoporosis
- Osteogenesis Imperfecta, lordosis, or kyphosis
- Recent surgeries
- Recurrent pathological fractures
- Spina Bifida
- Spinal fusions / spinal instability/ Spinal stabilization devices
- Varicose veins
- Diabetes
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Appalachian Therapeutic Riding Center may be unable to accommodate a potential rider due to resources available and program capabilities (ie horses, equipment, availability of therapist, volunteers, capabilities) Appalachian Therapeutic Riding Center follows NARHA's Precautions and Contraindications Guidelines.

If you have a question as to whether you qualify for the Appalachian Therapeutic Riding Center, contact Miika Rolett at 828-675-5814.

Warning: Under North Carolina Law, an equine activity sponsor or equine professional is not liable for an injury to or the death of a participant in equine activities resulting exclusively from the inherent risks of equine activities. Chapter 99E of the North Carolina Statutes.

Appalachian Therapeutic Riding Center

Information Concerning Participants with Down Syndrome and Atlantoaxial Instability

Atlantoaxial Instability (AAI) has been described as instability, subluxation or dislocation of the juncture of the first and second cervical vertebrae (atlantoaxial joint). Instability of the joint is generally due to poor muscle tone and joint laxity common with Down Syndrome. This is a potentially life threatening or paralyzing condition. Incidence of AAI among persons with Down Syndrome is reported to be 10 to 40 percent according to the Cremer study.

Specific radiographs (X-Rays), full flexion / extension X-rays of the lateral cervical spine to determine the atlanto-dens-interval measurement (ADI), are needed to rule out this instability before riding is permitted. An accurate ADI measurement is not always easy to obtain. A group of individuals with Down Syndrome have been reported to exhibit neurological abnormalities with normal ADI X-Rays. The cause of these abnormal neurological signs are unclear.

Individuals with Down Syndrome should not ride before the age of 3. X-Rays taken prior to the age of 2 ½ or 3 years are not reliable, as the area involved has not fully formed at this early age. Older participants should have an ADI X-Ray taken within five years prior to entering a therapeutic riding program.

Additionally, it is possible that the child or adult who is hypotonic or has low muscle tone, as is common in persons with Down Syndrome, may suffer repeated microtrauma to the cervical spine area. These individuals often show excessive head and neck instability.

NARHA requires that all participants with Down Syndrome have:

- A. Prior to starting riding
 1. A medical examination with special reference to neurological function
 2. Initial lateral, or side view X-Rays, within the past 5 years, of the upper cervical region:
 - a. In full flexion
 - b. In full extension
 3. Certification by a physician that an examination did not reveal atlantoaxial instability or focal neurological disorder
- B. Annual certification from a physician that the participant's annual physical examination reveals no symptoms of AAI.
- C. Following the initial X-ray, indication for repeated X-Rays should be made at the discretion of the participant's physician. Follow-up X-rays every 5 years is appropriate

Atlantoaxial Instability / Neurologic Symptoms

Change of Head Control

Torticollis
Head tilt
Stiff neck

Change in gait

Progressive clumsiness
Toe walking or scissoring
Falling
Posturing

Change in Hand Control

Progressive weakness
Fisting
Change of dominant hand
Increasing tremor

Change in Bladder Function

Change in Bowel Function

Contraindications

- Younger than 3 years of age
- Symptoms of Atlantoaxial instability
- Positive neurological clinical signs as noted by the physician
- Significant ADI measurement as determined by the physician