

EQUESTRIAN AT



Equestrianism, commonly known as horseback riding, is an activity that is open to a diverse population of children and adults, including those with physical, cognitive, sensory, or emotional disabilities. Equestrianism is also quite popular on a global scale. In the U.S., half of its estimated [9.2 million horses](#) are used for riding and racing. In China, the number of horse clubs (i.e., groups that are formed by people with shared equestrian interests) [has grown by 1,500%](#) between 2010 and 2017. In Great Britain, arguably the country where equestrianism is most popular, [3.5 million people](#)-1.2 million of those with disabilities-ride a horse at least once a year.

If you have a disability, equestrianism may not only be a good form of exercise, but it may also be therapeutic for you. A vast array of assistive technology (AT) products are available

to help you ride if you need them. This guide provides an overview of some of the equestrian AT products on the market.

[Overview of Basic Equestrian Equipment](#)

Before we delve into equestrian AT, it's helpful to know essential [equestrian equipment](#) and how it works. Here is a breakdown of some of the major pieces of equipment:

- Saddle - the seat-type device you strap to the horse and sit on top of to facilitate riding;
- Cinch - sometimes referred to as a "girth," this leather or fabric band holds the saddle on the horse's back by being tightened around its body just behind the front legs;
- Cantle - the arched, rear portion of the saddle;
- Pommel - the forward, arched portion of the saddle;

- Saddletree - the framework that consists of two sideboards connected by two forks for the pommel and cantle. It is usually made of rawhide-covered wood and gives the saddle its characteristic shape and name;
- Breast collar - this strap passes around the horse's chest and is attached to the saddle to prevent the saddle from sliding back;
- Stirrup - this device, which hangs down on the left and right side of the saddle via stirrup leathers, holds each foot as you ride;
- Bridle - a head harness for the horse (usually consists of a headstall, bit, chin strap, and reins);
- Headstall - straps that go over the horse's head;
- Bit - a metal mouthpiece that is used to steer the horse when connected to reins; and
- Reins - a pair of straps or cords used to control a horse. One end of the reins is connected to the bridle bit around the horse's neck, and the other end is for you to hold to manipulate the bit. Applying pressure on the horse's mouth and neck will enable you to steer the animal.

Benefits of Equestrianism by Disability

Equestrianism has been shown to be beneficial for many people, including those who have physical, cognitive, sensory, or emotional disabilities. Some of the benefits by disability that can result from equestrianism include:

- Stroke, spastic cerebral palsy, multiple sclerosis (MS), spinal cord injury, and traumatic brain injury (TBI) - Helps relax muscles and increases balance and flexibility.
- Ataxic and hypotonic cerebral palsy, Down syndrome, MS, and TBI – Stimulates weakened muscles.
- Down syndrome, autism, and fragile X syndrome – Improves balance and communication and enhances sense of body awareness and spatial relationships.
- Attention-deficient disorder, attention-deficit/hyperactivity disorder, and dyslexia – Builds correct muscle tones; improves cognitive skills, concentration, and memory; and boosts confidence to excel in other areas of learning.
- Blindness, deafness, and autism – [Improves posture](#), balance, and large and fine motor skills; increases body awareness; and sharpens ability to operate by touch and feel.

Mounting Aids: Getting On and Off a Horse

Equestrianism begins and ends with mounting and dismounting a horse, respectively. To [mount a horse](#), you place your left foot on the left stirrup and grasp the horse's reins with your left hand and the saddle's pommel with your right hand. Then you have to push off from the ground with your right foot, using the momentum from the thrust to swing your right leg up and over the horse's body onto the other side. Lastly, you must

slip your right foot into the right stirrup and then gently lower your body into the saddle.

If you have a lower-extremity disability or a balance disability, you may find mounting aids helpful. Whether you need a ramp or a full-body lift, adapted mounting aids are available to help you mount and dismount a horse with greater control and stability.

The [Handi-Ramp Portable Horse Mounting Ramp](#) is one such example. Constructed of non-slip aluminum, this 4-foot-wide and 12-foot-long ramp brings you closer to the stirrups at a gradual incline. The ramp then levels off to a 4-foot-wide, 6-foot-long, and 2.8-foot-high platform, which is where you would mount and dismount a horse. The ramp, which consists of two 6-foot-long sections, can be disassembled for easy transport/storage and then reassembled wherever it is needed (no tools required). The Handi-Ramp Portable Horse Mounting Ramp also has a 750-pound weight capacity with 3.2-foot-high railings on either side of the ramp to give you additional support and stability.

If you have difficulty standing up on your own or are unable to do so, another mounting option that you may want to consider is a full-body lifting system, such as the [Equestrian Lift](#). This powered lift is designed to pick you up from a chair or wheelchair and transfer you onto a horse. The Equestrian Lift features:

- Two slings - one goes under each leg to support your weight during transfer;
- Two L-shaped bars - one goes under each arm to steady your body during transfer;
- A hand controller - directs the lift (it is connected by a cord to the lift's power unit); and
- Two wheels - allows you to transport the lift to different locations.



Equestrian Lift

The Equestrian Lift uses a vertical lifting motion to raise you from the wheelchair or chair. Once you are secured to the lift's slings and bars, a family member or friend can operate the hand controller to raise you up from the chair or wheelchair, position you above the horse, and lower you onto the horse's back. Because the Equestrian Lift is foldable and equipped with two wheels, it is also portable—just connect it to the back of a car or truck using a 2-inch ball point hitch and tow it behind you. The Equestrian Lift uses a 12-volt rechargeable battery and a built-in charger that plugs into a standard outlet.

Riding Pads: Familiarize Yourself with a Horse's Movements

If it is your first time riding a horse and you are unsure as to how it would feel sitting on top of one, consider first riding the horse bareback with a pad instead of a saddle. Because a pad is thinner than a traditional saddle, it will allow you to feel:

- The muscular movements of the horse as it moves underneath you; and
- The [warmth of the horse](#) through the pad. This may be beneficial if you have tight muscle groups as a result of your disability (e.g., cerebral palsy) because the horse's warmth can help "relax and lengthen" your own muscles.

There are many types of bareback riding pads to choose from. One such example is [Supracor's Bareback and Training Pad](#). It is constructed of Stimulite® honeycomb—a flexible, plush ultra-suede material configured in a honeycomb cell-design. The flexing action of the honeycomb cells contour and stretch as the horse moves, allowing you to better feel the horse's movements underneath you. The cushioning material of the Stimulite® honeycomb also distributes your weight uniformly over the horse's back, which is an effective way to prevent the development of [pressure sores](#).



Supracor's Bareback and Training Pad



Therapeutic Riding Fleece Bareback Pad

Another option is the [Therapeutic Riding Fleece Bareback Pad](#). It is designed specifically for individuals limited to no lower-body movement. Made of natural lambskin fleece, the pad has a large padded fleece pommel and cantle block for extra stability and support for your lower body. [Fleece](#) can also hold heat for longer periods of time than most other fabrics, helping you stay warmer, longer. Since a [warmer body temperature](#) means that your heart does not have to pump as hard to circulate blood through your blood vessels as it would if your body temperature was lower, this temperature-balancing bareback pad is designed to help promote circulation by keeping you warmer as you ride.

You can still learn how to use the stirrups as you ride bareback. Once you feel ready, you can graduate to using a saddle if you wish, or you may continue to stick with the bareback pad.

Secure Yourself to the Saddle: Adaptive Saddles

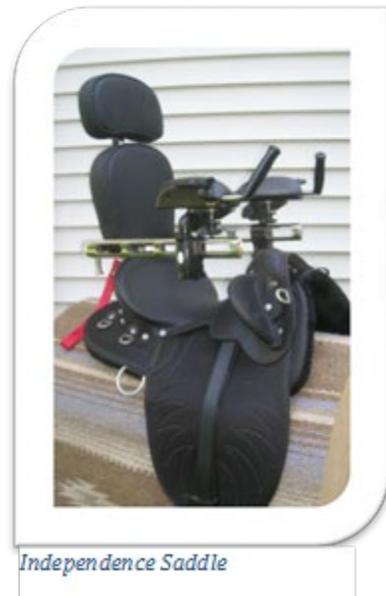
If you have a disability that prohibits you from sitting upright on your own, do not presume that this situation will exclude you from sitting astride a horse. In the past (before AT revolutionized the equestrian world), individuals with sitting assistance needs had to ride with a [back rider](#)—someone who could sit behind them on the horse and hold them upright with his/her arms. But now with adaptive, posture-promoting saddles, back riders have become almost a thing of the past.

One example of an adapted saddle is [Zaldi's Hipo-Comple Saddle](#). This leather-made saddle features:

- A semi-deep seat with a padded security backrest, both of which have double latex filling;
- A shock-absorbing frame to help make your ride smoother;
- A safety handle on the front of the saddle;
- Two leg safety straps on either side of the saddle to help keep your legs securely in place;
- An exterior knee roll/pad to prevent your legs from slipping forward; and
- Stainless steel safety stirrup bars.

An alternative option is the [Independence Saddle](#), a seating system designed to help you sit safely and independently astride a horse. It features the following parts, each of which can be adjusted or removed to accommodate your body's needs:

- A headrest and backrest for head and trunk support;
- Forearm supports to help stabilize your arms and shoulders, allowing you to lean slightly forward into a functional sitting position;
- Hand grips to help you remain steady;
- Hip supports for stabilizing your pelvis; and
- Iron stirrups that have weighted bottoms for added stability.



All in all, the Independence Saddle is designed to help you maintain better balance and head and trunk control so that you can interact more easily with the horse and ride with greater independence.

[Rest Your Feet: Modified Stirrups](#)

You may need stirrups that can help keep your feet securely in place if you have a lower-extremity disability, or stirrups that will quickly release your feet in the event of a fall if

you have a balance disability. Whatever your need may be, adapted stirrups have been designed to maximize your comfort and ensure your safety.



One option is the [Fillis Peacock English Safety Stirrups](#). This particular foot support has weighted bottoms for added stability. It also has heavy-duty rubber bands on one side that can be hooked to a leather tab on the bottom. In the event of a fall, the rubber bands will break away and release your foot from the stirrup. The purpose of this quick-release system is to ensure that your foot does not get caught in the stirrup if you happen to fall while out on a ride.

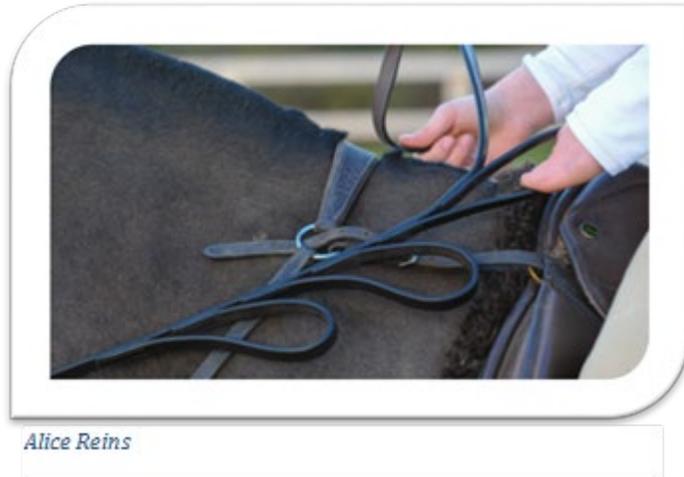
Another option is the [E-Z Ride Stirrups](#). These stirrups feature a textured foam pad along the floor of the stirrup. This foam pad allows the weight of your foot to be evenly distributed across its surface, providing relief on your knees and back. A top bar extends across the stirrup to minimize excessive foot bouncing and soften the shock that can result from riding.

Holding onto a Horse: Adapted Reins

Now that you have mounted a horse, secured your seat on the saddle, and positioned your feet in the stirrups, it's time to grab your reins and start moving. If you have limited hand dexterity or strength as a result of your disability, adapted reins are available to help you maintain a firmer grip on them. This enables you to steer a horse with greater ease and independence.

If you have a weakened hand grip as a result of your disability (e.g., arthritis, stroke, carpal tunnel syndrome), one example of an adapted rein is [Loop Ladder Reins](#). Made of pliable material called beta biothane, these adapted reins resemble a ladder configuration. Each side of the reins is lined with a set of loops, which are easier to grasp than standard reins. Plus, the loops lining these adapted reins are dotted with pimpled grips, another feature designed to help you maintain a firmer hold on the reins and better control the horse.

Another possible option to consider is [Alice Reins](#). Both the left and right rein have three stitched-in loops, each of which is specifically positioned to correspond with a horse's gait. If you want the horse to move faster, for example, you would hold the loops farthest away from you to shorten the reins and thereby gain more control of the horse. If, on the other hand, you want to move at a slower pace, you would hold the loops closest to you and let the reins relax a bit.



The three gaits that the loops on Alice Reins correspond with are walk, trot, and canter (canter being the fastest of the three gaits). The loop design makes the reins easier to hold, and the specific positioning of the loops allows you to learn where to place your hands in accordance with the horse's gait. With such adaptive reins in hand, you will be able to better steer the horse and control its pace.

[For More Information](#)

[Contact us](#) at AbleData for more information on the products mentioned in this guide and others that may help you with riding, or [view equestrian AT products](#) in our database.

[References](#)

Bhattacharya, S., & Mishra, R. K. (2015). Pressure ulcers: Current understanding and newer modalities of treatment. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4413488/>

Blocksdorf, K. (2017, February 22). *Horse care 101*. Retrieved from The Spruce Web site: <https://www.thespruce.com/horse-care-101-1886033>

British Horse Society. (n.d.). *Equestrian statistics*. Retrieved from <http://www.bhs.org.uk/our-charity/press-centre/equestrian-statistics>

Children's TherAplay Foundation, Inc. (n.d.). *Hippotherapy and therapeutic/adaptive riding*. Retrieved from <http://www.childrenstheraplay.org/hippotherapy-vs-therapeutic-riding>

Cowboy Showcase. (n.d.). *Terms for cowboy gear - Saddles and tack*. Retrieved from <http://www.cowboyshowcase.com/saddles-and-gear.html#.Wm9k-WnwaUk>

Detrick, S. (2015, September 26). *Importance of capillary action in the body*. Retrieved from Prezi Web site: <https://prezi.com/bkhizgmzvcno/importance-of-capillary-action-in-the-body/>

Disabled Sports USA. (n.d.). *Equestrian*. Retrieved from

<http://www.disabledsportsusa.org/sport/equestrian/>

Disabled Sports USA. (n.d.). *Horse riding (AKA equestrian)*. Retrieved from <http://archive.disabledsportsusa.org/adaptive-horse-riding-equestrian/>

Elveru, E. (2016, November 30). Are Fleece or Thermal Leggings Warmer? Retrieved from <https://classpass.com/blog/2016/11/30/fleece-or-thermal-leggings/>

Equestrian Therapy. (n.d.). *Benefits of therapeutic riding*. Retrieved from <http://www.equestriantherapy.com/therapeutic-riding/>

Fédération Équestre Internationale. (n.d.). *Disciplines*. Retrieved from <http://www.fei.org/disciplines>

National Institutes of Health, National Institute of Neurological Disorders and Stroke. (2017, May 19). *Hypertonia information page*. Retrieved from <https://www.ninds.nih.gov/Disorders/All-Disorders/Hypertonia-Information-Page>

Ritter, W. L. (n.d.). *Therapeutic horseback riding for the blind*. Retrieved from <https://nfb.org/images/nfb/publications/fr/fr19/issue1/f190110.htm>

Szymas, K. (2006, September 28). *Independence saddle*. Retrieved from Rifton Equipment Web site: <https://www.rifton.com/adaptive-mobility-blog/blog-posts/2006/september/independence-saddle>

Vascular Institute. (2018, August 29). How Cold Weather Affects Your Heart & Circulatory System. Retrieved from <https://share.upmc.com/2014/10/cold-weather-effects-heart-circulatory-system/>

Western Saddle Guide. (n.d.). *How to mount a horse*. Retrieved from <http://www.western-saddle-guide.com/mount-a-horse.html>



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Address: AbleData, 103 W Broad Street, Suite 400, Falls Church, Virginia 22046
Telephone: 800-227-0216 (Se habla español.)
TTY: 703-992-8313
Fax: 703-356-8314

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