

Adaptive Skiing More Available for People with Disabilities

by [Kelly Mixon](#)



With the increase in adaptive ski programs throughout the country and the advances in adaptive equipment, adaptive skiing is fast becoming one of the most popular sports. Who can blame people for wanting to try it? The blue skies, the views from the top, and the feel of your edges slicing through the fresh snow: that's hard to beat!

Adaptive skiing provides people with disabilities the opportunity to ski using specialty equipment (sit-skis, outriggers, etc.) Skiing is one of the few truly inclusive sports. Many of the same skiing concepts carry over to the sit ski. Also, it is an individual sport, so you don't need other

wheelchair users to participate. It's a great activity to do with family and friends. So, whether you were previously a stand-up skier or have never tried the sport before, adaptive skiing has a lot to offer.

Sign me up, right?! Well, before you get started, there are a few things you should consider before hitting the slopes. You want to first understand the types of skis and which one is best suited for you. Next, you will learn the gear to keep you warm and looking good (of course). Then, you'll learn everything you need to know in order to get started. By the end of the article, I will have you geeked up with tons of knowledge about adaptive skiing before you can say "fresh powder."

Types of Adaptations for People with Disabilities

Mono ski—The skier sits in a molded bucket-style seat that is mounted to a frame attached to a single ski. A shock absorber between the bucket and the ski cushions your ride. Since good upper-body strength and balance are needed, good candidates for the mono ski are typically lower extremity double amputee, spina bifida, spinal cord injury levels T6 and below (although exceptions occur).

Bi Ski—The skier sits in a rigid shell that is attached on top of two wide specialty skis. The two skis allow for a wider base ensuring more stability for the skier. The bi ski does not have a suspension system. Good candidates for the bi ski include beginner skiers, multiple sclerosis, cerebral palsy, and higher-level spinal cord injury.

Dual ski—The dual ski is a system designed to bridge the gap between the mono ski and bi ski. It sits like the mono ski, but it is attached to two skis. Those who have advanced past the bi ski but are not yet ready for the mono ski are most appropriate for the dual ski.

3-Track—These skiers require one regular ski and two hand-held outriggers, hence the three points of contact to the snow. Good candidates would be amputees, post polio, hemiplegic, those who ambulate with or without assistive device, do not have full use of one leg, but have one strong non-impaired leg.

4-Track—Skiers use two skis and two hand-held outriggers or an attached walker. A skin bra can be used to help ensure the ski tips do not cross. It is simply a tube that slips across the ski tips. Individuals with cerebral palsy, multiple sclerosis, spina bifida, or anyone who uses crutches or a cane would benefit from trying the 4-track system.

Outriggers—These are forearm crutches with a smaller ski tip on one end and a jagged blade on the other. Outriggers help with stability and turning. Hand-held outriggers are most common, but sometimes fixed outriggers can be attached to the bi ski.

Blind Skiing—The instructor uses various auditory cues and aides from behind or in front of the skier. The skier uses regular size skis and poles, but will not hit the slopes until he/she is comfortable with all maneuvering skills and cues.

Other adaptations—A tether strap is used as a training and safety device by instructors to tether to the skier. Grasping cuffs allow those with limited grip the ability to grip the outriggers using a Velcro strap. Chest straps/shoulder harnesses are available for individuals who need extra assistance for trunk stability.

The Dress Code

Staying warm and dry is the most important lesson to learn. With all the new outdoor gear there is out there, it will be easy to stay comfortable and look suave. When dressing for the mountain, there are three basic layers to follow.

Your first layer is your base layer. This should be moisture-wicking to keep your skin dry since it is the first layer that touches your skin. Stay away from blue jeans and anything cotton. The next layer can be of various thicknesses and you can have as many layers as your want. The fabric should be weather depending. Your outlayer should be waterproof. Think of this layer as the barrier between you and the outside elements (rain, sleet, or snow). It's not a fun day on the mountain when you're wet.

Other essentials include a hard shell helmet to protect your noggin, goggles are needed to protect your eyes and maximize visibility, and water resistant or waterproof gloves to keep those fingers warm.

Adaptive Skiing Equipment Essentials When choosing a ski, the fit is everything. Just as you would try on a pair of shoes before buying or test drive a car before making the purchase, try it before you buy it or even rent it. Not only are you going to want your bucket seat to put you in the most comfortable position for you, but you want it to put you in the most efficient position as well. Various pieces of foam sheets are tucked around your body for padding and ensuring a secure fit. This is especially important for those with impaired sensation. A list of some of the most popular ski equipment follows, but it is by no means all there is out there.

For the mono ski:

Mogul Master SP (Single Pivot) by Freedom Factory starts at \$2,600; this price includes the mono ski, the monster bindings, and superlite outriggers. www.freedomfactory.com.

Yeti Program Ski by RadVentures starts at \$2,500; this price includes the mono ski, the bindings, and the outriggers. www.yetti-radventures.com.

For the bi ski:

Bi Unique by Enabling Technologies starts at \$2,500 and includes skis, seating system, and harness www.superlite.com

For the dual ski:

Mogul Master Twin Two by Freedom Factory starts at \$2,800 www.freedomfactory.com.

For the outriggers:

Superlite by Enabling Technologies, \$349 www.superlite.com

RadVentures (sit down or stand up lengths), \$315 www.yetti-radventures.com

For grasping cuffs:

Tetragloves, www.spokesnmotion.com

Yeti Mitt Gloves, \$125 per pair www.yetti-radventures.com

Grasping cuffs, \$70 for one glove www.accesstr.com

*If purchasing used equipment, make sure there are no structural defects. Some equipment may just have cosmetic blemishes.

How to Get Started

When looking for a good adaptive snow ski program, the National Sports Center for the Disabled offers this advice:

- Ski instructors should be PSIA certified (Professional Ski Instructor of America)
- Instructor conducts a personal evaluation of your goals and specific needs
- Ask what is included in the lesson (rentals, lift ticket, etc.)
- Find out about accessible buildings and how to get to and from the slopes.

After you are paired with your qualified instructor and smiling volunteers and you have discussed your goals and needs, you are fitted for your ski. After getting familiar with the adaptive equipment, they will take you to a flat area to practice methods for balancing and using outriggers. You will most likely fall during this process, but it is a good opportunity to learn how to get back up.

In the lesson you will learn techniques for controlling speed and chairlift procedures. The instructors hold a tether attached to the ski to help control speed and turns. Getting on and off the chair lift frightens even non-disabled beginners; however, there are several factors that make this process easier.

Some skiers are strong enough to push up on the chair using their outriggers, but in time that can wear your shoulders out. Majority of people will need some assistance loading on/off the lift. Your instructor and volunteer will lift you safely onto the chairlift until you are able to safely do it yourself. Mono skis and other custom skis come equipped with a hydraulic or mechanical system that raises the bucket seat high enough to clear the lift. Once you are safely on the lift, sit all the way back in the chair and enjoy the views.

The first time I ever attempted snowboarding, my friend gave me the best advice. He said, “You’re gonna fall like crazy at first, so just have a good time and soak it all in.” So, my little grasshoppers, go, try, be like sponge: soak up all the experience you can take. You’ll be glad you did.

