

## **ADAPTED NORDIC SKIING GUIDELINES**

### **ABOUT ATHLETICS FOR ALL**

#### **History**

The Office for Civil Rights (OCR) of the U.S. Department of Education issued a Dear Colleague Letter on January 25, 2013 clarifying elementary, secondary, and postsecondary level schools' responsibilities under the Rehabilitation Act of 1973 (Rehab Act) to provide extracurricular athletic opportunities for students with disabilities. The guidance clarifies when and how schools should include students with disabilities in mainstream interscholastic athletic programs, defines what true equal treatment of student athletes with disabilities means, and urges schools to create adapted interscholastic athletic programs for students with disabilities.

The OCR Dear Colleague Letter helps clarify the existing regulations and statute under the Rehabilitation Act of 1973 (Rehab Act) to provide interscholastic, club, and intramural athletics for students with disabilities. The Rehab Act protects the rights of students with disabilities from discrimination in educational programs and activities in colleges and universities. The Rehab Act requires that students with disabilities be provided equal opportunity for participation in interscholastic, club, and intramural athletic programs offered by a school.

#### **What the Athletics for All Task Force Offers**

Introductory sport guidelines and best practices for adapted sports considered easy to adapt to mainstream interscholastic sports

Facilitation of training for your coaches and officials with adaptive sports experts

Access to hundreds of community based adaptive sports organizations, resources and tools for specific sports

Decades of experience in disability sport training, sport adaptations and adaptive equipment

#### **Sports Are Important for Students with Disabilities**

Benefits for students with disabilities who participate in sports are similar to students without disabilities:

- More likely to have better grades, school attendance and lower dropout rate
- Build discipline, self-esteem, confidence, and independence
- Learn team work, skill development and goal setting
- Promote healthy lifestyle
- Can be a predictor of later successes in college, career and community

- Students with disabilities do not receive the same amount of physical activity and athletic opportunities as students without disabilities
- According to the CDC, youth with disabilities are twice as likely to be physically inactive, resulting in obesity rates almost 40% higher than in youth without disabilities creating much higher risks for health-related diseases

Due to the resources available, it is possible to add adapted sports within school athletic programs without creating an undue administrative burden for State High School Associations or requiring the association to change existing rules for the athletes without disabilities.

## **OVERVIEW**

Adaptive Nordic skiers in all three classes can race and train alongside their teammates without disabilities. Training sessions for sit skiers should follow the same design and concepts as standing skiers' sessions and can usually be done side by side. A few modifications may be helpful when coaching sit skiers:

- Make sure athletes who use wheelchairs can access the groomed trail. This may mean asking for the trail to be groomed all the way to the trailhead or creating a path wide enough for a wheelchair to get to the trail.
- Terrain should be easy to begin with. A trail appropriate for beginner standing skiers is appropriate for most sit skiers.
- Keep the hills they climb to a maximum of an 8-10% gradient. Start them on small hills until they gain skills and confidence.
- Have sit skiers ski with a standing skier/coach when on steeper climbs in the case that sit skiers start to slide backwards.
- Avoid high speed down hills with technical features and trails with side hills.

## **EQUIPMENT**

### **Sit Ski**

Sit skis consist of frames made of metal tubing with a binding system and a bucket or seat with a strapping system that ensures the athlete has a snug fit in their bucket. Two skis attach to a binding system that consist of a normal Nordic binding on the front of the ski and another connecting point at the back end of the sit ski.

### **Skis**

All three classes use Cross Country skis. Standing and VI athletes can train and race in both the skate and classic technique, using the appropriate equipment for each technique. Sit skiers use the same skis with

one binding attached to the front of the sit ski and another system that holds the back of the sit ski onto the ski as well.

## **Fitting**

There are many of different sit skis designs out there. Finding out what works best for each individual you need to take in consideration the level of injury and maneuverability of the skier. The fit of the skier into the seat should be as snug and comfortable as possible. Padding may be necessary to ensure a good fit and prevent pressure sores. Talk with your skier when helping them with their fit to make sure they have adequate padding everywhere. Additional straps and weight belts can be used to help augment the fit and enable efficient transfer of the skier's movements to create forward momentum. It is recommended to have extra padding in different sizes and thicknesses and extra straps around to help in this fitting process. Keep in mind this is often a trial and error process the first few times out with a new skier.

### **Keep in Mind When Fitting a Sit Skier**

- A skier with one or two legs may keep their legs in front of them in a chair like position or tuck their feet underneath their seat
- Skiers with a higher level spinal cord injury who have less core stability often require a higher seat back and may want their knees pulled into their chest for additional support. A seat back too high will limit the range of motion and impair balance and rotary movement, hindering the athlete's control
- Athlete with low level spinal cord injuries or amputations have the option of angling their seat with the back of their bucket higher than the front. This puts them in a more powerful position for poling. This position is only for those with a high level of core function, as the seat provides very little stability
- A frame lower to the ground enhances control and stability. Ideally the skier can reach both hands to the ground, enabling them to use their hands and the tops of their poles to aid in breaking. A lower position will also make it easier to get up from a fall. A frame higher from the ground enhances the athlete's potential to create power. Every skier is unique and may want to try a few different positions to find the ideal balance of stability and power for their capabilities.

## **Poles**

Poles are used by all Para Nordic athletes as well and are fit in the same manner as skiers without a disability. Athletes missing all or part of their arm/s do not use a pole/s. These are no different from what is used in any other kind of cross country skiing.

*Fitting for Standing Athletes:* Classic poles should fit uncomfortably under the skier's armpit and skate poles should reach between a skier's chin and nose.

*Fitting for Sitting Skiers:* Poles will fit similar to standing skiers, poles will fit uncomfortably underneath their armpits while in their sit ski, this varies by personal preference.

## **Ski Boots**

Standing athletes and VI athletes use the same Cross Country ski boots as athletes without disabilities, one boot for skate skiing and a different boot for classic, or a combination boot that can be used for both skate and classic techniques. Skate boots have stiffer soles and higher ankle cuffs to provide more stability. Classic boots tend to be lower cut and the soles are more flexible as the classic stride necessitates constant bending movement of the foot. Combination boots have a softer sole to allow the flex in the sole for classic skiing but also have higher ankle cuff to support skate skiing. Boots should fit snugly, without heel movement while walking, like a running or walking shoe. For skiers using a prosthetic, you may need to add padding or make other adjustments to make sure the foot snugly fits in the boot.

## **Clothing**

Cross Country skiers dress in layers of light weight clothing and try to avoid materials such as cotton or really heavy layers, to allow the athlete to take a layer or two off if need be if they warm up throughout their ski. They wear lighter weight gloves and hat as well.

## **Visually Impaired Skiers**

VI skiers and racers follow a guide while skiing. An athlete with a visual impairment who has enough vision to feel comfortable skiing without a guide has the option to do so. Many guides use a headset microphone and speaker system to call out directions for the skier through the course.

## **COMPETITION & Rules**

### **BASIC RULES**

Visually impaired athletes classified as completely blind must wear blacked out goggles and stay with their guide at all times. Athletes with limited vision do not need to wear goggles and are free to leave their guide.

The Nordic sit ski shall consist of a sitting device with a fixed seat, which is not adjustable during the race, mounted on a pair of cross country skis or rolling devices (summer competition). No springs or flexible articulations are allowed in any segment of the sit ski, including the connection with the skis. The connection with the skis must be rigid.

The maximum allowable height difference between the point of contact of the buttock with the seat and the top of the ski is 40cm (including the cushion segment without load).

### **TRAINING**

Nordic ski training concepts, skills, and training sessions designed for adaptive athletes are identical to training for able bodied skiers. Just like any beginner skier, adaptive athletes may need to make some adjustments in which trails they ski on, staying away from any steep hills or technical corners. When exploring new trails, it is recommended that another skier accompany a sit skier to make sure the

terrain is appropriate. One can assist a sit skier up a hill by pushing from behind, but keep in mind you must also feel comfortable helping them get down the hill on the other side. Start your new athletes in an open space and allow them to practice their climbing, descending, and cornering in a safe area. As with any skier, falling is a part of the learning process and important one, too. Do what you can to ensure this learning process is done in a “safe area” (i.e. there are no cliffs to fall off of or big trees that are in direct line with where they might be likely to fall). These athletes, like all others on the team, will learn their limits and continually raise their level of expertise.

Many adaptive athletes have injuries that inhibit their bodies’ ability to regulate temperature. Be sure to take extra care that the athlete is wearing the appropriate clothing and does not have exposed skin. Encourage fellow skiers to keep an eye out for one another, letting a teammate know if they have an area of skin that becomes exposed during their workout.

## **RACE INTEGRATION**

- Standing athletes can be fully integrated without any changes necessary by any party.
- Athletes with visual impairments can also be fully integrated and should be allowed to have their guide race in front of them, without being charged for a race entry.
- Sit skiers may need an alternative race course. Depending on the course and the format of the race this could be done in conjunction with the standing race or as a stand alone competition on a course designed for sit skiers.
- Please refer to page 15 for more resources for race organizers working to integrate adaptive Nordic skiers into events.

## **FACTOR SYSTEM**

To determine the factored time, multiply the real time (converted to seconds) by the factor percent (convert back to minutes and seconds). This new factored time will be the athletes time posted on the results.

## **COMPETITION**

We recommend each State High School Coaches Association to come up with their own guidelines for the integration of adaptive skiers into high school programs, since every state has their own unique point system and State qualifying standards. We encourage each State to create a integrated system that includes the following three concepts:

- Open all high school Nordic programs and races to adaptive athletes.
- Create criteria for earning a high school letter in the sport.
- Create criteria for qualifying for regional and state meets.

## **EVENT ACCESSIBILITY**

Making your training venue/race more accessible to athletes who use wheelchairs or other mobility devices will also make it a more spectator friendly event. Most accessibility improvements do not require major infrastructure changes, but simply require coaches/race organizers to look at the layout and flow of the event and adjust as needed.

- **Accessible Restrooms:** make sure people who use wheelchairs have a clean restroom option at your venue. It is important that these are accessible from a wheelchair and do not require access by skiing or walking.

- **Accessing Trails:** how will sit skiers get from where they park or the lodge to groomed trails? Make sure it is possible to wheel to. If not, explore the possibility of grooming the trail a bit longer to bridge the gap. Other options may be shoveling out some snow to allow easier access to the trail or to create a snow bridge to cover some bare ground to make it sit skiable.

- **Start & Finish:** is it possible to get to and from the start/finish area either in a wheelchair or sit ski? If your race is point to point and you have wheelchair users or athletes with prosthetic legs they remove when they ski, make sure you or the athlete has a plan for getting their wheelchair/legs to the finish. Most importantly, communication and expectations should be clear on both sides so athletes, coaches, and race crew all know the plan.

- **Lodge:** if you have a lodge, is it wheelchair accessible? If not, are there modifications you might be able to complete to improve the accessibility? Sometimes a simple ramp will do the trick. Handles or rails will make it more wheelchair friendly. Consider making it permanent so wheelchair users can access your lodge and get to skiing all the time.

## **GROUPINGS**

The groupings presented here are suggested ways to create competition classes for athletes with disabilities. In order to not be confused with the national and international classification systems, we use the term groupings for school-based sport.

**Sitting:** Athletes with mobility impairments who participate sitting down (examples: athletes with spinal cord injuries, above knee amputations, spina bifida, etc)

**Standing:** Athletes with mobility impairments who participate standing up (athletes with arm amputations, single leg below knee amputation, or impairments that impact balance)

**Visually Impaired (VI):** Athletes with visual impairments or blindness

## **Role of Athletes Without Disabilities**

Programs may wish to consider a policy whereby athletes without disabilities may enter the adapted program temporarily while rehabilitating from an injury, so long as the injury present in such a way that the athlete might otherwise qualify someone with a permanent disability experiences the same physical limitations. For example, any injury or surgery where the physician has recommended the athlete stay

off the limb for a period of time and where that time spans a full season of an adapted sport, the athlete might qualify to participate in adapted sports regularly.

How will a state determine who is eligible? There are several different models to determine eligibility and minimal disability criteria. When possible and appropriate, it is best to stay within the three categories: sit down, stand up, and visually impaired.

Athletes with a disability have impairment (s) that may lead to competitive disadvantage in sport. Classification is the process by which athletes are assessed relative to the impact of impairment on their ability to compete in a specific sport.

Within the classification system, criteria are put in place to ensure that winning is determined by skill, fitness, power, endurance, tactical ability and mental focus, the same factors that account for success in sport for athletes without a disability.

Classification is sport specific. Each sport has established groups, call sport classes, to group athletes for competition based on activity limitation for that sport.

The international classification system for individual sports can be viewed online at: [Paralympic.org/classification](http://Paralympic.org/classification). Most IPC classification systems are not appropriate (too detailed) for a high school setting. It is suggested to modify to simplified / grouped classes such as sitting (wheelchair athletes), visually impaired, and ambulatory.

## **Disabilities**

**At the interscholastic level, these disabilities can be served in adaptive Nordic skiing:**

- Achondroplasia
- Amputee
- Arthrogryposis
- Avascular Necrosis
- Birth Defect
- Brachial Plexus Palsy
- Cerebellar Disgenesis
- Cerebral Palsy
- Congenital Hypotonia
- Congenital Limb Loss
- Diplegia

- Dystonia
- Erb's Palsy
- Femoral Focal Deficiency
- Femoral Hypoplasia
- FMD
- Full Joint Ankylosis or Replacement
- Hearing Impaired
- Larsen's Syndrome
- Leigh's Disease
- Lower Limb Paralysis
- McCune Albright Syndrome
- Mitochondrial Disease
- Multiple Sclerosis
- Muscular Dystrophy
- Osteogenesis Imperfecta
- PFFD (Proximal)
- Progressive Neurological Disorder
- Severe Amblyopia
- Severe Scoliosis
- Spastic Diplegia
- Spastic Paralysis
- Spina Bifida
- Spinal Cord Injury
- Spinal Muscular Atrophy
- Stroke



- Transverse Myelitis
- Traumatic Brain Injury
- Vertigo/Balance Issues
- Visual Motor Integration Impairment
- Visually Impaired
- Type 1 Diabetes
- Any other medical doctor diagnosed permanent lower body disability that prevents a player from competing in mainstream sports

## **SAFETY**

Student athletes with disabilities do not represent a higher level of liability risk or risk management concern than student athletes without disabilities. With proper planning and contingencies, student athletes with disabilities can seamlessly integrate into the dynamics of an interscholastic team. Individualized assessments can help assess or identify any potential safety concerns.

## **SAFETY RESOURCES**

Ensuring athlete safety is a priority. Through education, resources, and training, members of the sport community can recognize, reduce, and respond to misconduct in sport. Please refer to the following resources for more information.

What is SafeSport?: <http://safesport.org/what-is-safesport/>

Coaches Toolkit: <http://safesport.org/toolkit/coaches/>

SafeSport Trainings: <http://safesport.org/take-the-training/>

## **FREQUENTLY ASKED QUESTIONS**

Will there be additional costs?

The only possible additional cost would be if there is a greater cost for a school to ensure they have transportation that can accommodate wheelchair users in those circumstances where necessary. There should not be additional costs for the school system to bring athletes with disabilities onto the Nordic team for any other reason. All students will need to pay for the regular costs associated with being a member of the ski team.

Where can students find sit skis to use?

A number of adaptive sport organizations throughout the country have adaptive Nordic equipment that can be borrowed/rented for use. We recommend any new sit skier to connect with one of these

organizations to try out a few different sit skis with different positions to determine what is the best fit for them. Once the skier has determined this, we recommend they look into purchasing their own skis.

How do athletes get medically classified to race?

It is NOT necessary to get medically classified in order to participate and/or compete in high school and citizen programs and races. If an athlete is looking to compete on an international level we recommend they look into getting medically classified. If an athlete wishes to do so, please visit the Nordic Skiing Classification website to find out the latest information on classification and opportunities to do so:

<http://teamusa.org/US-Paralympics/Sports/Nordic-Skiing/Classification>

How do team accommodate for having to coach another group of athletes that may need additional attention, when the coaching staff is spread very thin already?

Working out a buddy system with other able bodied members of the team can be a great way to make sure all adaptive skiers stay out of trouble. Having teammates help sit skiers and those that need extra assistance get to and from the trail with all their equipment is a great way to promote good team dynamics. Providing a clear plan ahead of time for where the adaptive skiers will be training for the day, or making sure they are skiing with another standing skier, to help them in the case that they fall over is helpful as well. Keeping sit skiers on moderate terrain and in open areas when starting out is also recommended.

How does a visually impaired athlete find a guide to ski with them?

Finding a guide that is available can be a challenge. We would recommend any new athlete work with a number of guides to begin with to practice with different techniques; this also makes it easier on the athlete in the long run, to become comfortable working with different people. It is often difficult to find a guide that has the flexibility to be at every ski session and practice. Connecting with your local ski club is a good place to start looking for a guide.

## **RESOURCES**

U.S. Paralympic Nordic Skiing: [USPNordic@gmail.com](mailto:USPNordic@gmail.com)

U.S. Paralympics Nordic Education: <http://www.teamusa.org/US-Paralympics/Sports/Nordic-Skiing/Education>

U.S. Paralympic Nordic Club Finder: <http://www.teamusa.org/US-Paralympics/Sports/Nordic-Skiing/Find-a-Club>

U.S. Para Nordic YouTube Channel: <https://www.youtube.com/user/USPNordic>

Sit Ski Design Company; Spokes N' Motion: <http://www.spokesnmotion.com/xc%20sprint?form=150>

Race Organizer Guidelines:

[http://www.teamusa.org/~media/USA\\_Paralympics/Documents/nordic/guidelines%20for%20sit%20ski%20courses%202014.pdf](http://www.teamusa.org/~media/USA_Paralympics/Documents/nordic/guidelines%20for%20sit%20ski%20courses%202014.pdf)

Race Organizer Guidelines:

[http://www.teamusa.org/~media/USA\\_Paralympics/Documents/nordic/Integrating%20Adaptive%20Athletes%20into%20Races.pdf](http://www.teamusa.org/~media/USA_Paralympics/Documents/nordic/Integrating%20Adaptive%20Athletes%20into%20Races.pdf)

Race Organizer Guidelines:

[http://www.teamusa.org/~media/USA\\_Paralympics/Documents/nordic/Integrating%20VI%20Athletes%20into%20Races.pdf](http://www.teamusa.org/~media/USA_Paralympics/Documents/nordic/Integrating%20VI%20Athletes%20into%20Races.pdf)

## **MISSION**

The mission of the Athletics for All Task Force is to inform and provide the tools and guidelines by which coaches, athletic directors and school administrators can include students with physical disabilities in interscholastic sports.

## **VISION**

It is the vision of the Athletics for All Task Force that students with disabilities will have access to athletic opportunities throughout the United States in an equal manner as students without disabilities. The Task Force envisions an educational system that provides equal opportunities for student-athletes to derive the physical, mental, and emotional benefits of interscholastic sports, enabling each to develop into healthy, well-adjusted, contributing members of their respective communities.

ATHLETICS FOR ALL TASK FORCE

## **Active Policy Solutions**

<http://www.activepolicysolutions.com/>

## **American Association of Adapted Sports Programs (AASP)**

<http://www.adaptedsports.org/>

## **Bay Area Outreach and Recreation Program (BORP)**

<http://www.borp.org/>

## **BlazeSports America**

<http://www.blazesports.org/>

## **Bridge II Sports**

<http://www.bridge2sports.org/>

**Competitive Edge Management**

**Disabled Sports USA (DSUSA)**

*<http://www.disabledsportsusa.org>*

**Great Lakes Adapted Sports Association (GLASA)**

*<http://glasa.org/>*

**Lakeshore Foundation**

*<http://www.lakeshore.org/>*

**Louisiana Games Uniting Mind and Body (GUMBO)**

*<https://sites.google.com/site/louisianagumboinc/home>*

**National Center on Health, Physical Activity and Disability (NCHPAD)**

*<http://www.nchpad.org/>*

**Special Olympics**

*<http://www.specialolympics.org/>*

**United States Association of Blind Athletes (USABA)**

*<http://www.usaba.org/>*

**Wheelchair & Ambulatory Sports USA (WASUSA)**

*<http://wasusa.org/>*