## ADAPTED ALPINESKIING

## 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 Section 504 of 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 statue 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

With 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.

Adaptive skiing started in pre-World War II Europe and is now highly developed throughout the world. It involves individuals with mobility impairments, including amputees and paraplegics, and also those with visual impairments. It began as a rehabilitation/recreation program that evolved into well-organized national and international competitions. Often referred to as: adaptive skiing, adapted skiing, disabled skiing, para-skiing, and Paralympic skiing.

Page 4

#### **OVERVIEW**

• An overview of the sport.

#### Pages 5-6

#### TRAINING & EQUIPMENT

 Strength and conditioning advice, disability specific concerns, and adaptive equipment basics.

#### Pages 7-8

#### **COMPETITION & RULES**

 Rules of adapted alpine skiing along with the handicap factor system.

#### Pages 9-10

#### **GROUPINGS**

 Focuses on different grouping assignments and eligibility requirements

#### Page 11

#### SAFETY

 Coaches tips and a safety toolkit are highlighted in this section.

#### Page 12

#### **GLOSSARY**

 Comprehensive definitions for adapted alpine skiing.

#### Pages 13-14

#### **FAQ's & RESOURCES**

 Frequently asked questions about adapted alpine skiing and helpful coaching resources.



#### **Contributing Resources:**

Canadian Ski Coaches Federation Move United

Professional Ski Instructors of America United States Ski and Snowboard Association

US Paralympics

Contributing Reviewers:

The content in this document is intended to provide guidelines for the sport and should not be used for legal purposes.



Advances in equipment technology and training have allowed varying ability levels to be highly competitive in ski racing. As well the US Department of Education office for Civil Rights now mandates that extra-curricular activities be available for athletes of all ability levels. This document will help you as the alpine ski coach to integrate all athletes onto your team.

As is the case for any other participant, sport represents a vehicle for personal achievement, development, health, enjoyment, etc. for persons with disabilities. You are a coach and they are athletes; do not change your coaching philosophy or the way you deal with the athletes or their parents because you are now coaching athletes with disabilities.







Keep in Mind: The purpose of this guide is to provide coaches the tools to successfully integrate athletes with physical disabilities into high school alpine ski race teams, trainings, and races. There are many resources available to the high school alpine ski racing coaches and athletes; many of which are listed in the resources section of this guide on page 15.

# TRAINING & EQUIPMENT

#### **Outriggers for Stand Up Skiers**

For 3 and 4 track skiers, outriggers should be set up so that they provide only the support and assistance needed by the skier. The length of the outriggers should allow the skier to easily achieve a balanced athletic stance. If the outriggers are too short, the skier will bend over at the waist and if they are too long the skier's posture will appear to be overly upright. As a standing skier's use of the outrigger progresses, it is important to give them the option to remove the bolt or other mechanism that prevents the outrigger's ski tip from flattening against the snow. Outrigger brakes must be removed for competition. If the cuff of the outrigger hinges, it will protect the skier's wrist and forearm in the event of a fall.

#### Visually Impaired

Many visually impaired racers and guides utilize radio or speaker systems to improve communication between the guide and the skier. If the skier chooses to use a radio system it is recommended not to become completely reliant on the radio, as radio systems can be unreliable. Voice commands are the only legal communication between athlete and guide. It is legal for voice commands to be either called out or communicated through a radio or speaker system. Clicking the ski poles together or hitting the gates by the guide is not permitted in disabled skiing competitions.

#### **Basic Equipment**

**Skis:** Ski lengths and binding plate heights vary depending on the event

**Sit-Skis:** Mono-skis have a specially fitted chair over a single or double ski. The chair includes seat belts and other strapping, as well as a suspension device to minimize wear and tear on the skier's body

Poles or Outriggers: Athletes in certain Paralympic classifications use special poles called outriggers. Outriggers have short ski blades on the end and help the skier with balance

Clothing: Alpine ski races wear lightweight, form fitting clothing (all in one suit) to minimize air resistance. Sometimes suits are padded to protect from injury

\*Boots, bindings, helmets, and goggles are all standard for adapted alpine skiing

5

#### Sitting Skiers

**Mechanics:** A mono-ski is designed to transfer the movements of the athlete to the ski (like a ski boot). The mono-ski's suspension and geometry must allow the skier to control their pressure to the ski and absorb variations in the snow surface. The overall height and width of the mono ski should allow the skier to tip the ski on edge without contacting the snow commonly known as bucketing out. It must not be so high as to make balance difficult. The shock absorber is crucial to the performance of the monoski. Any skier who seeks to pursue racing or high level skiing should use a mono-ski that was designed to use a high performance shock. These types of shocks significantly enhance the performance of the monoski. High performance shocks can be set to the weight and preferences of the skier and require annual maintenance. Athletes and their coaches should become familiar with making adjustments to shocks.

#### **General Safety**

- Mono-skis should be checked regularly for loose bolts and cracks in the metal frame or plastic shell.
- All mono-skis should be fitted with hand straps to make it easier for teachers, coaches, and others to assist the skier.
- For competitions, stopping devices attached to the bucket to prevent long, sliding falls are mandatory.
- Shocks should be checked regularly and serviced yearly.
- Athletes should always be prepared to adjust and repair their mono-skis.
- Extra skis, straps, nuts and bolts, shocks, outriggers, and the appropriate tools are essential to get the most out of every training opportunity/session.

Athlete Interface: The interface between the athlete and the mono-ski incorporates the seat shell, seat cushion, straps, and leg covers. The biggest points to look for are the body position and range of motion, tightness of the interface, safety of the straps, and safety of the cushion. The skier's body position should allow them to access full range of motion fore/aft, laterally, and rotationally while offering support and stability so the skier can have full control through their range of motion. It is important that the straps and any covers not inhibit the skier's range of motion in any plane. For skiers who are bilateral leg amputees, a shoulder strap system may be required to safely secure them in the seat. It is also important to ensure that the skier's lower body is protected from impact in a fall by the shell and frame of the mono-ski. For mono-skiers with spinal injuries, it is crucial to be aware of the potential risk of pressure sores due to point pressure, rubbing, and shear forces against their skin. For sitting skiers making a strong commitment to the sport,

custom seating systems have been created to eliminate possible risks to skin health and provide a better interface with the mono-ski. We recommend that athletes perform regular skin checks to monitor these risks.

Bindings, plates, & mounting: Heel wedges are used to ensure that the mono ski is firmly connected to the ski to allow the skier to stav have better arch use of their ski. For the safety of athletes, attached bucket anchors help slow the athlete down if the individual were to fall. We have found that when a mono-skier releases from their binding their fall quickly becomes a tumbling fall rather than a sliding fall and the potential for injury is increased. When the ski remains fixed to the mono-ski it tends to act as an anchor and stops the skier from tumbling. High DIN (release settings) race bindings are needed for mono-skiers. These bindings are built with stronger materials and need to be set with the highest DIN setting as possible. Some bindings can be altered so they do not release by

removing springs in the toe and blocking the heel piece.

**Outriggers:** Determining the length of outriggers for sitting skiers is very similar to standing skiers. Outriggers should allow the skier to easily achieve a balanced athletic posture. Generally when they are too long the skier will need to push the riggers away from their body for their arms and shoulders to maintain an athletic posture. When they are too short the skier will hunch forward to maintain rigger contact with the snow. As a mono-skier progresses, it is important to remove the bolt or other mechanism that prevents the outrigger's ski tip from flattening against the snow. Outrigger brakes must be removed for competition. If the cuff of the outrigger hinges, it will protect the skier's wrist and forearm in the event of a fall.

# COMPETITION & RULES

#### **BASIC RULES**

- For sitting and visually impaired skiers, multiple jumps and multiple compressions should be eliminated
- Athletes in skiing with one ski are not allowed to use the free limb in contact with
   the snow to gain speed or to keep balance.
   Any violation of this rule will cause a disqualification
- Skiers are disqualified if they receive any assistance while on the course (example: they fall and a course worker helps them up)
- For all Visually Impaired classes the use of a guide is obligatory. Guides start the race from outside the start gate beside the racer
- No physical contact between the guide and competitor is allowed during the race
- All competitors in class B1 must wear blacked-out goggles during the competition

- All guides must guide VI athletes from in front. An exception can occur only between the last gate and the finish line, where the athlete can overtake the guide
- The distance between guide and athlete in technical events (slalom and giant slalom) must not exceed two direction changes and in speed events (downhill and super-g) must not exceed one direction change. Failure to satisfy this definition of the team will lead to disqualification
- The guide must pass through all gates
- All guides must wear the supplied competition bib and meet the following specifications:
  - Have a clearly visible "G" in front
  - The back of the bib may be a different color to accommodate the needs of the visually impaired competitor

#### **SCORING**

Downhill

Time of a single run determines result

Slalom

Combined times of two runs determines results (course is reset between runs)

Giant Slalom

Combined times of two runs determines result (course is reset between runs)

Super Giant Slalom (Super-G)

Times of single run determines result

Super Combined (SC)

Combined times of one downhill and one slalom OR one super-g and one slalom determine result

\*In all events, the penalty for a missed gate is disqualification

# **BUICK LOOK**

#### **GOLDEN RULE**

#### Golden Rule:

In order to encourage adaptive athlete participation in able-bodied USSA-sanctioned competition, USSA has adopted a special seeding rule for adaptive competitors. The "Golden Rule" was proposed by Adaptive World Champion, the late Diana Golden, and authorizes a special start order in USSA-sanctioned able-bodied competitions for adaptive athletes with USSA points equal to or better than the level noted in the current competition guide. Except for the specific application of the "Golden Rule," adaptive competitors participating in able-bodied races do so according to the rules, procedures, and scoring of those events.

**1st Run:** Seeding in special groups with start order: 16-20...36-40...56-60..., etc. or by USSA points, whichever is more favorable. Placement within groups by US Adaptive Ski Team Ranking among the impaired athletes is entered.

**2nd Run:** Seeding in the same special groups or by normal bib order, whichever is more favorable. Placement within groups according to first run finish order among impaired athletes.

**2nd Run Bib other than 15:** In the case of a "flip-30" 2nd run, the special group starts in the 31st position or in the position immediately following the first run leader when the flips other than 30.

Handicap Factor System: Disability class at a ski race with more than three athletes should institute a factor system. This system for comparing the various handicapped classes 'on par' applies to adaptive competitions only. It is not applied to adaptive competitors participating in 'able-bodied' races. The factor system is like a golf handicap.



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.



#### 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 other wise 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. 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.



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 asses 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/



Ambulatory Skier: The racing category for athletes who stand to ski or for those who walk but have mobility impairments. Examples include amputations or cerebral palsy.

**Dowel Testing:** Balance test performed with a skier in a sit-ski to determine the best position for the seat on the ski.

**Dual-Ski:** Sit-skiing in which the skier uses a molded seating apparatus mounted to two skis.

Factor System: System for comparing the various handicapped classes 'on par' in ski racing.

Four-Track Skiing: Skiing on two skis while using outriggers for stability.

Golden Rule: Specifies preferential seeding of skiers with disabilities in sanctioned races. Under the Golden Rule, places are reserved at the end of the top seed, after the first 15 racers, for the top disabled skiers so that they can race on the course before it becomes too rough from overuse.

Lift-Loading Mechanism: System of levers and swing arms that mechanically raise a sit-ski into a position suitable for loading onto the chairlift.

Mono ski: A form of sit-skiing in which the skier uses a molded seating apparatus mounted to one ski.

Outrigger: Similar to a ski pole with an adapter that allows a ski tip to be attached

to the end. The ski tip is retractable and can flip up to expose metal claws for gripping the snow (IE: crutch position).

Sit Skier: The racing category for athletes who use mono or dual skis are for those who have impairments to the lower extremities. Examples can include individuals with a bi-lateral amputation or spinal cord injury.

Three Track Skiing: Skiing on one ski while using outriggers or poles to maintain balance.

Two Track Skiing: Skiing on two skis.

Visually Impaired Guide: An individual who leads a visually impaired individual down the race course using visual cues and verbal cues. This individual is required to wear a bib inscribed with "GUIDE" or "G". They start next to the athlete in the starting gate, but they do cross the finish line.

Visually Impaired Radio Guiding System: Visually impaired athletes and guides often utilize a two way helmet radio system for communication while on the race course. Another option is to have the guide wear a backpack with speakers which projects the guides voice commands.

Visually Impaired Skier: The racing category for visually impaired athletes are for those who experience significant vision loss which requires the use of a guide during racing.



#### FREQUENTLY ASKED QUESTIONS

#### Will there be additional costs?

There should be no additional costs for the school system related to bringing athletes with disabilities onto the alpine ski team. All students will need to pay for the regular costs associated with being a member of the ski team. This includes but is not limited to: lift passes, transportation, coaching, equipment, etc.

#### Where do I get additional coaches training and certification for adaptive alpine ski racing?

The Athletics for All Taskforce has created free training tools and information packets for alpine skiing coaches, volunteers, and administrators. There are adaptive ski programs around the country that offer trainings in adaptive skiing to high school coaches.

#### How will students get the specialized adaptive alpine skiing equipment needed for racing?

If the school requires all students to provide their own equipment this will apply to athletes who need adaptive alpine ski racing equipment. There are adaptive alpine skiing programs nationwide that might rent equipment to the students. Another option would be for a student to purchase the equipment from an adaptive skiing supplier.

#### How do athletes get medically classified to race?

If an athlete is going to alpine ski race competitively we recommend that they seek out medical classification. We recommend that a student get classified at one of the events listed through the link below. Until an athlete can get classified we recommend that the student continue to race under the basic grouping of standup, sit down, and visually impaired.

#### How do I get access to alpine skiing factors?

All requests for factors for alpine ski racing need to be done through US Paralympics Alpine Ski Team. Contact information can be found in the resources section of this document.

#### How do I get access to timing software that incorporates adaptive athletes?

The NASTAR timing software is available to high school race teams. This software uses a basic factoring system to allow athletes with disabilities to be incorporated fairly into high school alpine ski races. Contact information can be found in the resources section of this document.

### RESOURCES

Para-Alpine Skiing	http://en.wikipedia.org/wiki/para- alpine_skiing
Professional Ski Instructors of America Ski Terms	http://www.psia-e.org/download/ed/ adaptive-ed/adaptiveexamguide.pdf
Disabled Alpine Skiing Fundamentals	http://www.amazon.com/dsiabeld-alpine-ski-fundamentals/dp/b00f94m4fq
US Paralympics Coaching Training	http://www.teamusa.org/us-paralympics/ sports/coaching-guide
US Paralympics Classification Information	http://www.teamusa.org/us-paralympics/ sports/alpine-skiing/classification
USSA Coaching Education	http://ussa.org/alpine-programs/coaches/ education
Alpine Equipment Guide	http://alpine.usskiteam.com/sites/default/files/documents/athletics/compservices/2014-15/documents/2015_alp_equipment_final.pdf
NASTAR Timing Software	http://www.nastar.com





#### 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

**Move United** 

http://www.moveunitedsport.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/



