

Adaptive Teaching Guide: Vision-Related Diagnoses

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Students with vision-related diagnoses are usually stand-up, two-track skiers. A kinesthetic and concise verbal approach to skill development is usually most effective with these students.

Students with a vision-related diagnosis may utilize their other senses to a greater degree (auditory, kinesthetic, etc.) to process information. For example, when teaching the "gliding wedge" instructors can draw a wedge with their finger on students' hand; teaching students how to "match the skis" can be accomplished by physically placing students' skis side by side.

Please note this document uses terminology such as blind, visually impaired, and visual impairment to align with the language used by the International Paralympic Committee and its skier classification system. Some people, programs, organizations, etc. may choose to use language such as low vision.

Diagnoses Common to Students with Vison-Related Diagnoses

This category includes a vast number of diagnoses and several of them are listed below:

- Cataracts
- Diabetic retinopathy
- Glaucoma
- Macular degeneration
- Myopia
- Retinal detachment
- Retinitis pigmentosa
- Strabismus

In addition to the above eye diagnoses, some additional causes of vison loss are listed below:

- Brain injury
- Cerebrovascular accident (CVA or stroke)
- Diseases, such as diabetes, Friedreich's ataxia, multiple sclerosis, or myasthenia gravis
- Light damage from excessive UV exposure, such as "welder's flash" or "snow blindness"



- Toxins, such as mercury
- Tumors
- Vascular disease

Medications Common to Students with Vison-Related Diagnoses

This category includes a variety of medications which may be used by students with visual diagnoses, and several are listed below:

- Analgesics
- Antidiabetics
- Antihypertensives
- Anti-inflammatories

Also, be aware that some medications have vision-related side effects. For instance, antispasmodics like Flexeril and Valium can cause blurred vision. Plaquenil, which is used to treat rheumatoid arthritis, among other conditions, can cause color blindness.

Student Assessment

Assessments should explore students' diagnosis. However, complete, and detailed assessments go beyond this and are imperative to determine the physical, cognitive, and emotional strengths and challenges of each person. A thorough check of current medications provides important information relative to stamina and sensitivity to the environment, as well as attentiveness and interpersonal skills. Treat every student as an individual; effects of the same diagnosis can vary dramatically from student to student.

The physical assessment (i.e., mobility, balance, coordination, strength, endurance, range of motion, ability to rotate leg(s), and strength of limbs) provides helpful insight. The assessment provides indications to the equipment needed to create a successful learning environment. Even after an assessment is completed, adjustments may need to be made, due to students' abilities demonstrated throughout the lesson.

However, most important, within this group of diagnoses is a visual assessment. Visual acuity, field of vision, depth perception, and the color perception can vary greatly among people with vision related diagnoses.

Indoors, first assess students:

- Visual abilities.
- Cause of vision loss;
- Medications;
- Medical precautions;
- Hearing and other sensory abilities; and
- Secondary diagnoses, if any.

The second part of the indoor assessment relates to students' guiding preference, both indoors and on snow. As you are working with students to determine the most effective guiding method,



you may want to consider students':

- Visual acuity and field of vision;
- Ability to hear;
- Ability to understand left and right directionality;
- Skiing skill level; and
- Previous guiding systems used by student in other sports.

It is important to understand that you may need to reassess and adapt your guiding method based on what works for your student, as well as changes in light conditions, terrain, and snow conditions. It is your responsibility to adapt to each individual's preferred guiding methods.

Assessing Students' Vision

As students walk in the door, you can begin to assess their vision. Does the student wear glasses? Walk independent of aids? Walk self-guided with a cane? Walk with the assistance of a guide or service dog? Move closer to or further from an object to see it? Tilt his/her head to see or to control eye movement?

After making this initial appraisal, it is essential that you perform a thorough vision assessment. This should be done both inside and outside due to differences in lighting and environment. You may need to assess again if light conditions change.

Find out if students can distinguish colors. Which colors are easiest to see? Some people who are color blind can only see colors on a grayscale, while others can see some colors but not others. You can easily assess this by asking students to identify the colors of nearby objects. Remember people with color blindness cannot rely on color-coded trail markers and may not easily see your blind guide vest, should the two of you become separated.

Assess students' visual acuity by asking them to identify objects at varying distances. Assess their field of vision by slowly moving your fingers in an arc, starting from either side, and slowly moving toward their center of vision. Be sure to assess both sides and maintain a seeable distance while doing this (putting your fingers too close to or too far from students can cause an inaccurate appraisal).

Can your student see better out of one eye or the other? Remember this can impact depth perception and field of vision.

While depth perception is harder to evaluate, it is valuable to make note of clues. For instance, students who lack depth perception may not be able to distinguish a white table next to a white wall or a shadow from a ditch. For them, from the chairlift, a fence may look like it is flat on the snow instead of standing up.

Guiding Students

The goal of guiding is to provide clear, concise instructions which lead students through the environment and skiing. Visual, auditory, and kinesthetic cues are utilized to establish a solid communication base between you and students. Remember, if students have some level of



vision, you may be able to use a visual guiding system.

It is critical you and your student set up a word that warns the student of imminent danger. This word needs to be established before the first lesson and confirmed frequently. When spoken, this word results in the student immediately falling to the ground and protecting himself/herself the best way possible. Students should respond to this word without second thought.

It is also important that you and your student create a plan in case you become separated or lose your guiding connection (for example, if your student no longer hears your verbal cues).

Guiding Methods

Following are some of the most popular guiding methods. Adapt these methods as needed to provide your student with the most effective and fun skiing lesson possible.

Guiding inside and on flat terrain can be done in several different ways, so check with students to see if they have a preference. When walking on land or shuffling on skis, students may place one hand on your shoulder as you lead the way. Alternately, students can hold onto your elbow and follow the movement via this physical connection. You can move your elbow in the direction you want students to move. Guiding with a vertical or horizontal pole offers a third option. To avoid injury, offer students the grip end while you hold the tip end when using pole horizontally. As with the elbow hold, gently moving the pole will indicate the direction you want students to move. Think of a vertical pole as a joystick when moving the pole to indicate directionality.

<u>Verbal cues</u> are simple, basic words that can serve as the basis for communicating with students on and off the slope, regardless of their skill level. This method includes such cues as: "stop," "go," "right," "left," "slower," "faster," "hold," etc. Verbal cues can be used with any skiers who have a visual impairment if they can hear you. The cues are clear and concise and, in general, are universally understood. However, you still need to verify that you and your student attach the same meaning to each of the cues you use. Also, be sure students do not have any issues with directional dyslexia.

When using verbal cues, establish the words students would like you to use prior to going on the slope. Experienced students may have their own preferences while people skiing for the first time may collaborate with you to select words that work for them.

Remember the cadence of your words is critical. A consistent cadence allows students to establish rhythm and flow. Cadence can also be used to subtly teach turn size and shape, simply by extending or shortening the timing of verbal cues.

The <u>clock system</u> is commonly used with people with visual impairments. Students are always facing 12 o'clock and the clock "resets" to 12 o'clock after they move. For instance, if you want a student to complete a 90° turn to the right, your instructions would be to turn to 3 o'clock. Do not forget that once they make the 90° turn to the right that 12 o'clock is in the new direction being faced. This guiding technique may be used inside, in lift mazes, and on the slope. It is especially useful in intermediate/advanced ski guiding and in racing.



<u>Auditory cues</u> are specific sounds made by you as you are skiing in front of students. The sounds can be made in a variety of ways. Examples include, tapping your ski poles together, clapping your hands, or blowing a whistle. Based on the direction of the sound, students can tell which way to turn. This system can save your voice, and it provides constant auditory connection between you and your student, which can be reassuring to the student.

You may choose to use <u>visual guiding</u> if your student has some level of sight. When doing this, you ski in the student's field of vision. Be sure to let students know they should immediately stop if you can't be seen. This technique is especially useful on crowded runs, noisy runs, or when verbal guiding is straining your voice. It is also helpful when you or your student is experiencing sensory overload. Just as importantly, it can be used when students want to experience the joy of skiing uninterrupted by your voice.

If you want to use kinesthetic guiding, see the section on Equipment and Physical Assists.

The <u>grid system</u> allows you to describe ski runs and terrain by breaking an area up into imaginary units. For example, one side of the trail can be "0," the other side "10" and the center of the slope "5." Utilizing the Grid System, plus directional commands, students can be kept well informed of their position relative to the slope width.

The grid system should never be utilized simultaneously with the Clock System. It is best used with intermediate to advanced skiers. Since it is more complex and less intuitive than simple directional cues, you should practice it extensively before using it with students.

Because timing is critical in upper-level skiing, the need for an agreed-upon, concise guiding system greatly increases as students' progress.

It is imperative to review guiding cues before every sliding session and after any misinterpreted cue from a guide or guest that occurs during on-snow sessions to ensure safety, clear communication, and maintain trust and rapport in the guide/guest partnership.

Guiding position

The position you take on the slope relative to students can vary based on the guiding technique you choose, students' visual range and skiing ability, wind, hard snow or other auditory challenges, crowds on the slope, and your students' personal preference.

<u>Guiding from the front while skiing backwards</u> is useful for beginning students skiing on easy terrain. This technique allows students to easily hear your directions and lets you see their progress. For obvious safety reasons, you should not attempt this technique on busy slopes. If available, an instructor assistant can ski behind students and warn you of upcoming obstacles or skiers. Also, be aware some ski areas do not allow instructors to ski backwards.

Guiding from the front while skiing forward is often used with advanced skiers and required on Paralympic racecourses. If you are using verbal cues, this technique requires you to turn your head back over your shoulder when speaking, so students can hear your voice. This can impact your stance, so it can be difficult at high speeds or on challenging terrain unless you are using a



speaker or radio communication system

<u>Guiding from the side</u> is helpful if students have strong peripheral vision yet lack central vision. This can occur with some visual impairments such as macular degeneration. For safety, you need to look uphill when students turn away from you, so this may not work as well on crowded slopes.

<u>Guiding from behind</u> allows you to easily evaluate students skiing while offering a view of upcoming terrain and obstacles. Students can readily hear your voice with this technique, but they may be disoriented by the fact that your voice is coming from behind, instead of coming from the direction in which they are traveling. Beware that head winds may carry the guide's voice away from the student.

Tips for Guiding

Regardless of which method of guiding you use; these tips may help you effectively guide your student:

- Speak up! It may be harder for students to hear when wearing a helmet or if the wind may carry the guides voice away from the skier.
- Remember there is a delay between your cue and students' response.
- Be aware of the distance between students and obstacles or other skiers. Allow extra distance.
- Understand that stress or fatigue may aggravate some people's vision. Pace your lesson to avoid this and adapt your guiding technique, if necessary.
- Avoid superfluous chatter and too much information. It can cause sensory overload for students and can tire you out.
- When it is safe to do so, consider skiing in the middle "lane" of a run to avoid the edges.
- Prepare students for changes in upcoming terrain. If there is a dramatic change of terrain (for instance, moguls after skiing an easy blue cruiser), you may want to make a complete stop to further emphasize the difference.
- When possible, use kinesthetic words to describe terrain. Use words like "dip," "flats," "washboard," or "bumps." Avoid non-kinesthetic words like "moguls" or "groomed terrain" unless students are already familiar with these terms.
- Listen intently to what students hear and be prepared to describe it if students want more
 details. For instance, the whirring sound of a snow maker may be disconcerting until
 students realize that noise is putting more snow on the slope.

Equipment and Set Up

Students with visual impairments often have difficulty with balance since the visual system is one of the major components of balance. Additionally, students with visual impairments may need kinesthetic experiences as opposed to visual demonstrations when learning a new skill. Adaptive equipment such as fixed or flexible tip connectors, Edgie Wedgies, bamboo poles, and tethers may be utilized to help student increase balance and provide a kinesthetic experience of



effective ski movements. Set a developmental plan for its removal if using assistive equipment.

Blind Skier or Blind Rider and Guide Vests

These brightly colored bibs (usually bright orange or neon green) are worn by you and the student over jackets and any other gear so that they are visible from both the front and back. They alert the public to the special needs of the skier/rider and are sometimes used for guide identification by the participant with low vision. If used for guide identification by the student, be sure the person can recognize the color of the vest against the guide's coat.

Bamboo Pole

Bamboo poles (or lengths of PVC pipe) offer many options for physically assisting an adaptive ski student. Some frequently used bamboo pole assists are:

- A single pole held horizontally at the waist or chest level by both instructor and student, with the instructor skiing backwards. Be aware some ski areas do not allow instructors to ski backward.
- A long single pole held horizontally at waist to chest level by both the student and instructor or instructors, skiing side by side.
- Two poles, one in each hand of student and instructor, held at hip height with one person skiing in front, the other immediately in back (also called a horse and buggy).

Hula Hoop[®], Ski-Pal[®], and Sno-Wing™

Hula Hoop®, Ski-Pal®, and Sno-Wing™ offer great flexibility for teaching adaptive students. Students can be positioned inside of these devices with you skiing directly behind. You can then guide turns in a manner similar to tethering. Another option is to ski with an instructor assistant and position students inside the device and between the two of you. In this case, the technique is similar to a side-by-side bamboo pole assist. Yet another choice is for you to ski backward in front of students with the Hula Hoop® or Ski-Pal® between the two of you. This allows you to lightly guide students' turns and give them the sense of security that comes from being able to hold onto something.

Electronic communication systems

Personal two-way radios or other electronic communication systems can be a useful aid when you are giving verbal cues. While they may save your voice from yelling, some students feel uncomfortable with a "disembodied voice" guiding them. If you use personal two-way radios, be sure to check the batteries and if you are planning to ski for a long time, you may want to bring a back-up set of batteries. You should realize, however, that the radios may still not work in all areas and establish an alternate signaling system in case of signal failure.

Sunglasses and goggles

As with all skiers, a student with any type visual impairment should wear sunglasses or goggles to prevent further damage from ultraviolet light. If you are skiing on rugged terrain, use goggles to avoid eye trauma from rocks or chunks of ice.

Tip Stabilizer

Tip stabilizers come in various forms. Most allow the skier to maintain skis in a wedge or parallel



position. Edgie Wedgies, Easy Wedges, and c-clamps held together with cord offer very light tip control. They keep the ski tips in close proximity but do not prevent them from crossing. A slider/trombone offers more tip stability while still allowing the student some fore/ aft movement of the skis. A metal fixed tip stabilizer prevents the tips from crossing or separating and it limits fore/aft movement. The sliders/trombones and fixed tip stabilizers have rings to which you can easily attach tethers.

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*Remember that for safety, students with any type of tip retention device (with or without tethers) should not ski backwards. Skiing backwards could risk injury.

Heel Stabilizer

A spacer bar or heel bungee attaches under the ski boots at the heels and helps the skier keep his/her skis from crossing or getting too far apart.

*Remember that for safety, when using a spacer bar, you should ALWAYS use a tip stabilizer, such as a tip stabilizer, fixed tip stabilizer, or slider/trombone.

Other Adaptive Equipment

Some students may require the use of more involved adaptive equipment, such as sit-skis, outriggers, or the slider. See the other PSIA-RM-AASI Adaptive Alpine Teaching Guides for information on other pieces of adaptive equipment.

Physical Assists

Physical assists are useful methods for students to experience how a turn should feel. You can also use them in situations where unexpectedly advanced terrain or fear can prohibit students from skiing down on their own. Remember to always ask your student's permission before making any physical contact.

Palm on Palm

A simple assist is to hold the student's hands palm on palm vertically or horizontally on yours as you ski backwards in front of the student. Remember that by skiing together, you increase your mass, which naturally increases your speed. It is critical that you always keep your speed slow enough to maintain control. Be aware some ski areas do not allow instructors to ski backward.

Tip Hold

This is an easy way to direct your student's turns. Simply ski backwards in front of your student while holding and guiding the student's ski tips. This method works best if you have an instructor assistant who can warn you of upcoming people and obstacles. However, even if you have an instructor assistant do this, you should still check often for such potential hazards. Be aware some ski areas do not allow instructors to ski backward.



Two-Point Hold

This is often used to assist students in turning and stopping. It is also an effective way to kinesthetically teach a new movement to students with a cognitive diagnosis. To perform the two-point hold, ski behind the student with one ski between the student's skis and the other ski outside of the student's ski with your hands on one hip and opposite knee of the student, both hips of the student or the coat tail of the student to exert light pressure to instruct rotary, edging, or pressuring movements, or instill confidence in the student.. Remember that by skiing together, you increase your mass, which naturally increases your speed. It is critical that you always keep your speed slow enough to maintain control! Use turn shape reinforce this method of speed management. Two-point holds are often most effective when coupled with a tip stabilizer.

The following instructions are written for your left ski between your student's skis. Reverse the instructions if you are skiing with your right ski between the student's skis.

- 1. Ask your student's permission to make physical contact.
- 2. Position yourself behind your student with your left ski between your student's skis and your right ski to the right of your student's right ski.
- 3. Using your hands, rotate the student's hip and tip the knee as necessary to generate turns.

Stand-Up Tethering

Stand-up tethering is a physical assist that utilizes a ski tip connector, and tethers attached to the device. It also puts you, as the instructor, in a potentially safer position as you will not be skiing backward and there is physical distance between your skis and your student's skis. Practice this before trying it with students as it takes skill and finesse to ensure safety and enjoyment for students.

As the tetherer, you can:

- **Control speed** by utilizing the slope and through turn shape (take care not to jerk the tethers, as this could cause the student to fall) and
- Assist with turns and turn shape through active tethering in different phases of the turn.

Instructor tether assistance may help students create muscle memory and, with enough practice, this newly developed muscle memory may allow students to eventually ski independently. Assess the student for possible independence of tethers and, if appropriate, implement a plan for tether removal for greater self-sufficiency by the student.

For students who can achieve some balance on the skis, this assist can be useful for those who:

- Lack the cognitive ability to understand directions (e.g., vision diagnosis coupled with an intellectual disability).
- Have no fear of dangers such as speed or obstacles (e.g., a vision diagnosis coupled with sensory processing disorder).



- Are easily distracted and over-stimulated in a "magic carpet" type environment where other students would normally learn to turn and stop (e.g., vision diagnosis coupled with ADD/ADHD).
- May have the cognitive ability to understand concepts but not the strength or capability to make appropriate movements (e.g., traumatic brain injury which affects vision).
- Learn best with a kinesthetic approach that can develop muscle memory.

Generally, stand-up tethering is only appropriate on easy terrain (typically green trails).

Remember that for safety, students with any type of tip retention device (with or without tethers) should NOT ski backwards. Skiing backwards could risk injury.

Attaching the tethers to the skiers' tip device

The tethers should be attached to the D-rings or other attachment site on the sides of the skiers' tip device. This provides the maximum input for tether support in helping the skier to turn and stop and for student reassurance. Be sure to follow program, school, and/or resort practices and procedures for attachment of the tethers to the slider.

Attaching the tethers to the instructor

There are several key points to remember when attaching the tether to yourself: You should always maintain tether contact *if you feel the student cannot or will not recognize safety concerns and react appropriately to them.* Be sure to follow program, school, and/or resort practices and procedures for attachment of the tethers to the instructor.

- Attach the tethers to your wrists using a girth hitch, maintaining skin contact. Tethers should be beneath your gloves and jacket.
- Do not attach the tethers to your upper arms. Attaching to your upper arms is less effective and efficient. Sometimes instructors attach tethers to their upper arms because the tethers are too long. Adjust tether length, if necessary.
- Use a second back-up safety attachment when required by your local program/resort.
 One end is fastened to the tether and the other end is fastened to your wrist, arm, or waist. A carabiner is often used for this attachment.

Body position

You should be positioned behind and slightly uphill of skiers when tethering. When tethering a skier, it is good practice to maintain tension on the tether inside of the turn until skiers have passed the apex of the turn or the skier exhibits turn control point through this point.

Stay in sync with the students when tethering. Look for subtle cues, such as an ankle or knee extension or leg rotation, to time your assistance with students turn initiation.

Feet and skis

Ideally, you can make stem/step turns in sync with the slider skier. Practice this and all footwork maneuvers to gain confidence and proficiency.



The wedge may also be used to effectively tether stand-up skiers, especially when coming into crowded areas or on flat terrain. Beginning tetherers often learn to tether using the wedge in order to master body and hand position. Progressing to stem/step turns is generally kinder to your hips and knees, is usually a stronger position from which to tether, and can impart smoother turn transition for students.

Hand and arm position

For maximum control and stability, hands and arms should be closer to your center of mass. This is known as the tetherers' "power box." In this position, hands are between hips and chest; arms are flexed, with elbows ahead of your spine (similar to carrying ski poles). When hands and arms are outside of the "power box," you may reduce your ability to guide, control and stop the student. Arms should be used as extension and retraction tools while remaining neither at full extension nor retraction

Tether handling

There are several different techniques that can be employed to initiate turns, including smoothly pulling the inside tether to initiate a turn and wrapping and unwrapping the tethers around your hands to control length and tension. Regardless of what technique used, practice is critical to develop a feel for what is most effective.

Smooth tether handling is critical for student safety and skill development, skiing ability and student enjoyment. You should be able to wrap and release the tether with ease; there should never be so much slack that you risk tripping/skiing over the tethers or getting tethers caught under the students' ski brakes or skis.

The tightness of the tether lines can vary based on the needs of students. Generally, more advanced students benefit from light guiding of the tether lines, used as 'teaching tethers,' not a control device. Beginning students, on the other hand, may need the greater instructor control that is available with tighter tether lines. Be aware of too much tension on tethers that may negatively affect student balance or movements during turning or stopping.

Tethering exercises

The following exercises may be used to improve tethering techniques:

- Develop strong skiing skills. In particular, mastery of the following maneuvers can improve tethering skills:
 - o Stem/step turns
 - o Falling leaf
 - o Side slip to hockey stop
 - Synchronized skiing (with visual and verbal cues)
- Practice tether management. At home attach tethers to a chair and practice wrapping around individual hands (gathering) and unwrapping from individual hands (releasing) the tethers. Next, practice smoothly releasing the tether and then gathering it back up. Make sure you do not have slack to trip over.
- Practice tethering with a stand-up skiing partner who is skiing in front of you, just as a



- student in a slider would be in front of you. This partner should not be attached to the tethers but, instead, should hold them loosely (to protect his/her shoulders).
- Use guided discovery to find the "power box" hand and arm position. Hold your hands high, low, and in-between until the height of the "power box" is established. Then determine the width of the "power box" by holding your hands close together, far apart, and in-between. Finally, play with the flex of your arms, moving from straight arms to a tight-angled bend and in-between. As above, this exercise should be done with a stand-up skiing partner, not with students in a slider.
- Practice tethering and emergency stops with other instructors stand skiing. If possible, practice these maneuvers on people of varying weight and height. Have them role play different levels of ability. Practice until you consistently use effective body position and foot movements. Feel how different techniques affect the students. Notice the difference between full control and gentle guiding.
- Be tethered by another instructor while you are stand-up skiing. Notice which tethering techniques help or hinder your progress.

Service Dog Etiquette

Some people with visual impairments use service dogs to guide them. Together, the person with the visual impairment and the dog makes up the service dog team. If there are secondary disabilities, the service dog may also be trained to assist in other functions, such as providing stable support for a person with a balance impairment or alerting the person prior to the onset of a seizure or migraine.

A service dog is not a pet! Never interact with a service dog in training. For service dogs, whether in training or on the job, always ask the person in the service dog team if you may interact with the dog. This includes petting, feeding, whistling, calling, or talking.



Skill Development for Common Two-Track Outcomes for Skiers with Vision-Related Diagnoses

Local regulations and safety guidelines take precedence over this information. It is in your best interest to exercise due diligence in determining the appropriateness of the information for your circumstances. In addition, please consider all factors that may affect your lesson. This includes, but is not limited to, the health, well-being and fitness of the student, weather conditions, terrain, other people on the slope, your own abilities, as well as those of students and anyone who may accompany you.

Beginner / Novice Zone Outcomes

Level 1: Welcome to Skiing / Build the Foundation

- Perform student assessment.
- Discuss medical history.
- Determine and share goals.
- Select, introduce, and set up equipment.
- Agree on student / instructor communication and safety.
- Develop a guiding plan.
- Perform static balance exercises and develop athletic stance indoors.
- Perform pushing, turning, pivoting, and balancing drills on flats.
- Begin to understand the fall line and terrain changes.
- Learn how to safely fall and get up.
- Learn to slide at slow speed.
- Glide and slide across the slope.
- Perform a straight run to a terrain-assisted stop.

Level 2: Introduction to Turning

Note: Turning at this level achieved through balance and a primary skill of rotary along with a blend of edging and pressure control skills.

- Develop stopping and slowing skills.
- Turn left and right to a stop.
- Perform linked turns.
- Begin to vary shape and size of turns.
- Perform braking wedge.
- Learn how to ride chairlift.
- Introduce sideslip skills in the beginner area.

Level 3: Introduction to Green Terrain

- Explore terrain go for lots of quality mileage!
- Actively skid the skis for turn shape and speed control.
- Begin to use terrain-assisted edging and edge release movements to initiate a turn.

Intermediate Zone Outcomes



Level 4: Mastering Green Terrain

- Refine the ability to control the skis by turning and tipping the appropriate body parts.
- Perform edge and rotary control exercises.
- Explore all green terrain in a variety of snow conditions.
- Experiment with turn shape and size.
- Develop an understanding of how changes in stance affect the skis.
- Solidify a release move to initiate a turn.
- Use hockey stops.

Level 5: Developing Skills to Enhance Parallel Skiing

- Carry and use poles more efficiently.
- Learn how to use a pole swing, touch, and/or plant to help with torso stabilization, rhythm, and timing.
- Improve dynamic balance, increase range of motion, and feel the edges.
- Gain an understanding of upper and lower body separation.
- Develop simultaneous edge release for parallel turns on blue terrain.
- Control speed on green and groomed blue terrain by blending skills and using tactics and turn shape.
- Develop long- to medium- and medium- to long-radius turns.
- Ski a "green line" in the bumps.
- Freestyle: Learn how to jump, using natural terrain features, and beginner terrain parks.

Level 6: Anchor Parallel Skiing & Learning Tactics for Bumps and Variable Conditions on Blue Terrain

- Link open parallel turns with emphasis on simultaneous rotation and edging.
- Perform medium- to short-radius turns.
- Ski varying snow conditions.
- Carve uphill arcs.
- Refine tipping movements to become more dynamic.
- Perform short-radius turns while developing upper and lower body separation.
- Create body angulation.
- Explore using skidded and carved short turns as tactics for speed control on steeper terrain.
- Explore powder, crud, and cut-up snow conditions.
- Explore various hands-off guiding and/or teaching methods.
- Ski a "blue line" in the bumps.
- Freestyle: Straight slide a funbox.

Advanced Zone Outcomes

Level 7: Linking Parallel Turns on All Blue and Some Black Terrain and Increasing Confidence in Variable Terrain and Conditions



- Perform carved railroad track turns.
- Enhance pole movements to promote rhythm and flow.
- Continue to refine skill blending for parallel turns on all blue and some black terrain.
- Explore a variety of turn shapes on groomed and variable terrain.
- Explore tactics for skiing all terrains.
- Freestyle: Perform a rail slide on a bamboo pole or PVC practice rail.

Level 8: Mastering the Mountain and Exploring the Latest Ski Designs

- Continue to enhance upper and lower body separation.
- Carve medium- and long-radius turns.
- Refine edge engagement and release movements, changing line, turn shape, and speed to adapt to challenging terrain and snow conditions.
- Refine flexion and extension movements to maintain balance, manage uneven terrain, and allow the efficient blending of all other movements.
- Perform short-radius turns using upper and lower body separation in variable conditions to develop more speed control and manage terrain more efficiently.
- Ski the "black line" in the bumps.
- Become comfortable skiing all of the mountain's most difficult terrain.
- Freestyle: Introduce the halfpipe.
- Freestyle: Perform a rail slide on a funbox.

Level 9: Skiing Any Turn, Anytime, Anywhere, and in Any Snow Condition

- Increase confidence in ski design and speed in a safe environment (especially useful for the skier interested in racing).
- Refine flexion and extension movements to enhance turn mechanics.
- Use timing and tempo to enhance the release of the old edges, tipping both skis simultaneously from turn to turn while reducing anxiety and fatigue to allow for more enjoyable skiing on challenging terrain.
- Refine movements and options in short radius turns, adjusting tactics at will.
- Explore alternative movement blends and tactics for variable conditions, skiing the entire mountain efficiently.
- Freestyle: Perform a 360 off a jump.
- Freestyle: Perform a rail slide on a metal rail.