



*Special Olympics*

# Cross-Country Skiing

Coaching  
Guide  
2021



# Acknowledgements

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Special Olympics welcomes your ideas and comments for future revisions of this guide. We apologize, if for any reason, an acknowledgement has been inadvertently omitted.

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# Welcome

## ***Welcome to the Special Olympics Cross-Country Skiing Coaching Guide 2021***

This guide will aim to provide coaches with valuable information to improve their knowledge and skills, or to get them started as coaches within Special Olympics (SO) Cross-Country Skiing. Throughout this guide you will find a variety of other information relating to coaching the sport, such as safety, preparation and sportsmanship.

This guide should be read in conjunction with the [Special Olympics Cross-country-Skiing Sport Rules](#) document and the [Special Olympics Sports Rules Article 1](#).

Keep in mind, that this guide is just one resource which may be useful to you as you progress through your career as a coach. As you develop your own style of coaching, you will find other books, websites, magazines and coaches, which will help to shape your approach to coaching. Always be curious! Always be open to new ideas! Always keep your athletes at the heart of your coaching.



# Benefits of Sport & SO

## Benefits of Cross-country Skiing

Cross-country skiing is a great way to be active and to enjoy the outdoors in the winter. As a lifelong sport, skiing is also a challenging way to build fitness, strength and confidence. If learned at the right pace and done consistently, then the benefits of aerobic endurance and strength can be long lasting. Learning different cross-country ski techniques requires physical and psychological balance, coordination and focus.

## Events Offered in Cross-Country Skiing

### Official events

The range of events is intended to offer competition opportunities for athletes of all abilities. Programs may determine the events offered and, if required, guidelines for the management of those events.

Coaches are responsible for providing training and event selection appropriate to each athlete's skill and interest.

The following is a list of official events available in Special Olympics.

- 10 Meter Ski Race - Classical Technique
- 25 Meter Ski Race – Classical Technique
- 50 Meter Cross-country Skiing Race - Classical Technique
- 100 Meter Cross-country Skiing Race - Classical Technique
- 500 Meter Cross-country Skiing Race
- 1 Kilometer Cross-country Skiing Race
- 2.5 Kilometer Cross-country Skiing Race
- 5 Kilometer Cross-country Skiing Race
- 7.5 Kilometer Cross-country Skiing Race
- 10 Kilometer Cross-country Skiing Race
- 4x1 Kilometer Cross-country Skiing Relay
- 4x1 Kilometer Unified Cross-country Skiing Relay

If there are not enough athletes to properly division separate Classical and Free Technique events of similar distances, the events shall be combined and follow Free Technique Rules.

Events can be either classic or skate classic. Classic events will require one or more classic tracks to be set throughout the course.

# Basics of Cross-country Skiing

## Equipment

### Classic Skis

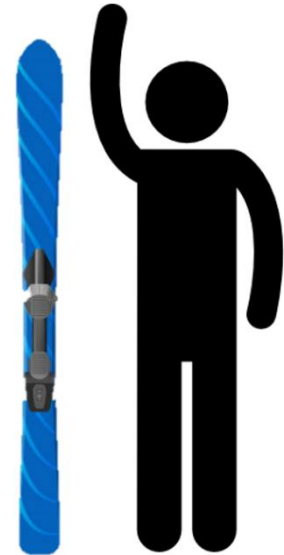
Classic skis can be waxable, requiring wax for the kick zone, or waxless, with fish scales along the kick zone.

The kick zone, waxless or with kick wax, grips the snow and enables the skier to “kick” off the snow and glide.

Waxless skis provide a low-maintenance introduction to skiing. As a skier’s skills develop, waxable skis will be a fun option, and will provide better kick and glide while classic skiing. A classic ski can be waxed to enhance glide and to create kick.

The length of the ski should reach the wrist of the athlete’s upward extended arm. However, shorter skis are easier for beginners, so it is okay if the skis seem too short on a novice athlete.

Refer to a qualified ski technician or coach for accurate ski length based on height, weight and ability.



### Classic Boots

Classic boots have a short ankle cuff and allow for significant flex in the ball of the foot. Fitting boots is important and requires assistance from a ski technician or coach. They should be comfortable and fit similar to a pair of sneakers.

The boot is too big if the foot can slip and the heel can lift.

The boot is too small if the toes are scrunched.

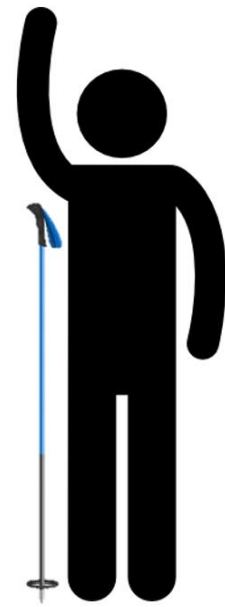
Combi boots can also be used for beginner classic skiers because the higher ankle cuff will provide more support and stability.



### Classic Poles

Classic poles should reach from the floor to between the armpit and shoulder. When beginning, it is also okay to start with slightly shorter poles, so that the athlete can develop upper body strength in order to pole effectively.

Pole grips and straps are universal. When fitting, the athlete should make sure they know how to insert their hand and adjust accordingly for a snug fit and firm grip.



### Skate Skis

Skate skis do not have a kick zone like classic skis and are waxed only for glide. The length of the ski should be relative to the height of the athlete, however ski length can differ depending on height, weight and ability.

Skate skis are shorter than classic skis and should be fitted by a ski technician or coach. An athlete can skate ski on waxless or combi skis.

### Skate Boots

Skate boots have a higher ankle cuff than classic boots. These boots are more supportive of the ankle and enable the skate technique. Fitting boots is important and requires assistance from a ski technician or coach.

They should be comfortable and fit similar to a pair of sneakers.

The boot is too big if the foot can slip inside the boot and the heel can lift.



The boot is too small if the toes are scrunched.

Combi boots can also be used for beginner skate skiers and the athlete can transition as skill and interest progress.

### Skate Poles

Skate poles are longer than classic poles because skating is a more upright technique and benefits from longer poles. Skate poles should reach from the floor to between the chin and the mouth. Pole grips and straps are universal. When fitting, the athlete

should make sure they know how to insert their hand and adjust accordingly for a snug fit and firm grip.

### **Combi skis, bindings and boots**

Combi boots and skis are good for a new skier or one who is in transition from classic to skate technique. Combi boots are both flexible and stiff, so to be comfortable in both skate and classic techniques. Combi skis are typically sized in between skate and classic lengths.

There only two types of bindings, NNN and SNS, so this makes finding the right equipment rather easy. To ensure proper fit, safety and importantly optimal enjoyment, all equipment should be fit by a knowledgeable ski technician or coach.



### **Attire**

Athletic ski clothing and accessories need to be combined to provide warmth and protection from moisture, wind and sun. Several layers of clothing are recommended because layers can be easily taken off or added on, depending on temperature. This concept of venting is particularly important in Cross-country skiing. By removing an article of clothing or opening, unzipping a jacket, you can vent or regulate the body's temperature and perspiration rate. Remember, proper fit means clothing that does not restrict motion or circulation. The main goal with ski clothing is to stay warm and to stay dry.





## Three-Layer System

Inside Layer	Wicking layer	Upper Body + Lower Body	Long underwear
Middle Layer	Insulating layer	Upper Body	Cotton shirt Turtleneck Fleece
Outer Layer	Weatherproof layer	Upper Body	Windbreaker Warm-up jacket
		Lower Body	Heavyweight lycra tights Wind pants

## Other recommended pieces of attire:

- Socks
- Vests
- Gloves/Mittens
- Hat
- Sunglasses
- Sunscreen

## Falling Down & Getting Up

Falling in skiing is natural and happens to everyone; it's all a part of the learning process. Therefore, it is important to prepare your athletes to be able to fall and get up effectively. If an athlete is weary of falling, have them practice falling down and getting back. Be aware that ski poles can break if caught under body weight.

## Falling Down

- Lower the body and fall to the side, not backwards or forwards onto the poles.
- Keep skis parallel.
- Keep arms close to the body.
- Stay relaxed.

## Getting Back Up

Often getting back up after a fall can be frustrating: skis, poles and limbs can be entangled. Teach the same routine when a fall happens to help your athletes learn the order of movements to get back up.

- Roll on to the back with legs and skis up in the air—like an overturned turtle.
- Drop onto one side with skis in a parallel position. If on a hill, drop on the downhill side across the fall line.
- Bring legs and skis close to the body.
- Crawl towards the tips of the skis.
- Kneel over the front of the skis with hands on the ground.
- Rise to one knee first, and then stand.
- Use arms and poles to assist in pushing up to standing position.

The following are a few scenarios that can complicate this situation:

If the athlete falls backward, then:

- Direct them to roll onto their back to free their lower body and skis—like an upside down turtle.
- Roll to one side and keeping skis parallel.
- Now the athlete can lean onto their hands and knees to stand back up.

If the limbs and equipment are entangled, then:

- Try to release their boots from the bindings and take off their poles.

If the athlete falls on an incline, then:

- Keep the skis parallel, perpendicular to the fall line and on the downhill side in order to get back up.

Be patient and help your athlete to remain relaxed and focused on return to their hands and knees to get back up. Encourage them to be independent and try their best before receiving help. It is tempting to help hoist them up, but give your athletes time to figure out their bodies and how to properly move them.



# Fitness

## **Fit 5 + Other Special Olympics**

Special Olympics provides a range of fantastic fitness resources that coaches and athletes can use to educate themselves on best practice around physical activity, nutrition and hydration.

There are many health-related and performance-related benefits of fitness for Special Olympics athletes.

### **Benefits of Fitness for Athletes**

- Enhanced sport performance through improved
  - Endurance/stamina.
  - Speed and agility.
  - Strength and power.
  - Flexibility.
  - Healthy weight.
- Increased energy level, improved focus, and better recovery after practices & games.
- Reduced risk for sport-related injuries.
- Decreased risk for illnesses and chronic diseases.

## **Physical Activity Outside of Special Olympics**

It is vital that Special Olympics programs are not the only source of physical activity and exercise for athletes. As a coach, you should be encouraging your athletes to exercise every day and educate them on ways to stay active outside of organized sport practice.

There are numerous ways that athletes can exercise to stay healthy when they are at home. Walking, running, and biking are simple ways an athlete can exercise on their own and work on their cardiovascular fitness. Fitness classes like yoga, core strength,

HIIT and many others are great ways for athlete to work on their fitness and physical health outside of organized sports practice.

Special Olympics offers the Fit 5 Guide for athletes and coaches to use. As a coach it is a great resource to use when educating your athletes on the benefits of physical activity to their overall health and to their sports performance.

## Fit 5

The [Fit 5 Guide](#) is a plan for physical activity, nutrition and hydration that can help to improve athletes' health and fitness and make them the best athlete they can be. The Fit 5 Guide and accompanying [Fitness Cards](#) provide a fantastic collection of exercises that athletes should do to assist them to improve the skills needed for their sport. The exercises included focus on Endurance, Strength, Flexibility and Balance.



Figure 1: Fit 5 Fitness Cards

In addition to these resources, there are a number of videos available [here](#) for athletes and coaches to view and use when performing these exercises as part of their training plans.

## Nutrition

Eating right is important to your health and your sports performance. Nutrition and hydration are key points of athlete preparation and recovery for all forms of exercise. However, most athletes don't understand the connection between nutrition/hydration and sports performance. As a coach, it is important that you emphasize this connection and educate your athletes on correct habits. This is

especially important for Special Olympics athletes, as they are at a higher risk for obesity.

It is vital to educate cross-country skiers about the importance of timing their meals or snacks prior to training or competition. Inform your athletes of the risk of eating too close to the time they are to train or compete, and educate them on the best times and foods to eat to ensure they are efficiently fuelled to perform.

It is recommended to have your last meal or snack at least 90 minutes before completing any exercise. This ensures the athlete can digest the food and it will be available as a fuel source for them when training or competing.

You can utilize the nutrition and hydration section in the [Fit 5 Guide](#) to educate your athletes on basic principles. The nutrition, hydration and activity tracker can help your athletes to pay more attention to these elements at home.

**Task:** Consider taking 5 minutes at the end of practice to cover nutrition and hydration tips. Educate parents and carers on the information that's shared with athletes so they can help athletes eat healthy at home.



Figure 3: Nutrition Section - Fit 5 Guide



Figure 2: Hydration Section - Fit 5 Guide

## Hydration

Water is another important fuel for sports and for life. Drinking the right amount of water is important for your health and can also help your athletic performance.

Coaches should be educating their athletes about the benefits of drinking enough water every day.

The [Fit 5 Guide](#) has a hydration section which provides information for coaches about quantities of water that athletes should be consuming, signs of dehydration in athletes, and the best choice athletes can make when looking for a drink.

As a cross-country skiing coach it is important to help you athletes keep on track with their hydration. Coaches should encourage athletes to take responsibility for their own hydration before, during and after training. The body's thirst signals may be a bit delayed in cold weather, but athletes will still be losing water through sweating and open mouth breathing.

Encourage athletes to drink one bottle of water (16-20oz/500-600ml) an hour or two before practice so they show up fully hydrated. Remember to pause for drinks breaks during a training session. We would recommend **pausing every 15-20 minutes** to give your athletes the chance to rehydrate as they are losing water while exercising. Encourage your **athletes to drink one bottle of water** (16-20oz/500-600ml) during a training session to make sure they do not get dehydrated. When drinking, athletes should take many small sips of water instead of gulping it down as this can sit in their stomachs and cause discomfort when exercising! Encourage athletes to drink water after practice to help them recover from their workout.







## **Cross-Country Skiing Warm-Up and Cool-Downs**

### **Warm-Up**

Before beginning any form of physical activity you should always carry out a warm-up. A warm-up should be designed to prepare the body and mind for physical activity and reduces the risk of injuries occurring.

#### **Purpose of a warm-up**

- Gradual increase in body temperature.
- Gradual increase in heart rate.
- Gradual increase in breathing rate.
- Increase in blood flow to working muscles.
- Increase in range of motion of primary muscle groups for their sport.
- Mental preparation.

As you can see, warm-ups are extremely important for athletes' preparation for physical activity. Increasing body temperature and blood flow to working muscles is key for athletes to prevent them from sustaining injuries while exercising. A gradual increase in body temperature reduces the chance of an athlete sustaining muscle and tendon injuries while an increase in blood flow to working muscles ensures a delivery of import fuels that are required for energy production. In addition to this, warming up helps athletes increase the range of motion they have in their muscles. This adequately prepares athletes' working muscles for the movements they will be performing (stretching, generating power, stabilizing the body, etc.). Finally, an adequate warm-up will mentally prepare the athlete for exercise, this includes increased focus at practice or in competition, positive self-talk, or improved motivation knowing they are physically prepared to exercise.

It is recommended to carry out a **comprehensive, sport specific** warm-up for **at-least 15 minutes** prior to starting training activities or competition.

**Comprehensive:** Warming up all parts of the body. Focus especially on the main muscle groups involved in snowshoe, including the legs, hip flexors and abdominals.

**Sport Specific:** Performing movements your athlete will carry out during practice. For cross-country skiing, you might include calf raises, exaggerated arm swings, squats and balance exercises.

Warm-ups should include three specific components:

1. **Aerobic activity to raise heart rate**
  - This can be walking, jogging, jumping or skipping.
2. **Dynamic Stretching**
  - Dynamic stretching involves active, controlled movements that take body parts through a full range of motion.
3. **Sport Specific Movements**
  - Skills or movements which are core to your sport.
  - Movements that the athlete will complete in training or competition.

See our [Warm-Up and Cool-Down Supplement](#) to learn more information on the components of a warm-up. The [Dynamic Stretches Guide](#) also provides a collection of exercises can be included in your warm-up.

**Training Warm-Ups:**

### Sample Warm-Up 1: 20mx25m area

<b>Aerobic Activity:</b>  5-7 minutes	<ul style="list-style-type: none"> <li>○ Light Jog – 2 minutes</li> <li>○ Jumping Jacks</li> <li>○ High Knees/March in Place</li> </ul>
<b>Dynamic Stretching:</b>  15-20 repetitions of each	<ul style="list-style-type: none"> <li>○ Forward Leg Swings</li> <li>○ Lateral Leg Swings</li> <li>○ Hip Circles</li> <li>○ Arm Circles</li> <li>○ Windmill Toe Touches</li> </ul>
<b>Sport Specific Movements:</b>  5-10 minutes	<ul style="list-style-type: none"> <li>○ Short 5-10m sprints – race starts</li> <li>○ Quick relays</li> <li>○ Side to Side Bouncing</li> </ul>

#### Tip for Dynamic Stretches:

Athletes can hold onto their ski poles for balance when doing stretches like forward/lateral leg swings and lunges

## Sample Warm-Up 2: 25mx30m area

<b>Aerobic Activity:</b>  5-7 minutes	<ul style="list-style-type: none"> <li>○ High Knees</li> <li>○ Butt Kicks</li> <li>○ Side to Side Bouncing</li> <li>○ Forward Jacks</li> </ul>
<b>Dynamic Stretching:</b>  15-20 repetitions of each	<ul style="list-style-type: none"> <li>○ Forward Leg Swings</li> <li>○ Lateral Leg Swings</li> <li>○ Torso Twists</li> <li>○ Arm Swings</li> <li>○ Calf Raises</li> </ul>
<b>Sport Specific Movements:</b>  5-10 minutes	<ul style="list-style-type: none"> <li>○ Longer 15-20m sprints – race starts</li> <li>○ Quick relays</li> <li>○ Uphill and downhill transitions</li> </ul>

### Competition Warm-Ups:

Before any athletic competition, an effective warm-up needs to be completed. Warm-ups are essential to preparing the athletes' bodies and minds for physical activity, which will improve their performance and reduce the risk of injury. Here are some tips for competition warm-ups:

- Have athletes do the same warm-up routine that they do during training sessions.
  - Athletes with intellectual disabilities do best when they follow consistent routines. Routines help athletes to build their confidence, skills and time on-task.
- If space is limited, encourage athletes to do aerobic activities in place, or go back and forth between the allotted space.
- Keep athletes active and moving during staging. If they are sedentary during this time, they will lose the benefits of their warm-ups, such as an increased body temperature and blood flow to working muscles



- It's possible that the aerobic activity and dynamic stretching can be conducted inside a building or facility, if space permits. Make sure the athletes stay warm if they conduct their initial warm-up outside, especially during the dynamic stretching phase.

### **Cool-Down**

When your training, practice or sport session is complete, you should always cool-down. It is just as important to have a good cool-down as it is to have a good warm-up. A good cool-down allows the body to gradually return to a state of rest.

#### **Purpose of a cool-down:**

- Decrease heart rate.
- Decrease breathing rate.
- Decrease body and muscle temperature.
- Returns rate of blood flow from the active muscles to resting level.
- Decrease muscle soreness.
- Improve flexibility.
- Increases the rate of recovery from exercise.
- Promote relaxation.

A typical cool-down includes light aerobic activity followed by stretching. The aerobic activity should gradually decrease in intensity/difficulty. It could be a short jog/walk at 50% intensity with some stretches, led by the athletes, at the end.

Cool-downs are perfect opportunities for coaches to carry-out a debrief session with their athletes and review the session they have just had. Ask your athletes some **open, informative** questions that will make them think about the session and what they would have learned. In addition to the athletes reinforcing the coaching points you have given them, it also gives you, as a coach, the opportunity to see what works for each athlete as an individual.

Coaches should also use this time at the end of practice to encourage healthy habits. Educate athletes on the importance of staying active and eating healthy outside of practice.

**Open Questions** – Questions that cannot be answered with ‘Yes’ or ‘No’, for example:

*“What part of the training session did you find challenging today?”*

**Informative Questions** – Questions that provide useful information for you, as a coach, and for the athlete.

*“What part (if any) of the training session did you enjoy most today?”*

Sample Cool-Down 1:	
Low Intensity:	<ul style="list-style-type: none"> <li>○ Starting from the end line, walk 100-200m</li> </ul>
Stretching:  30 seconds each	<ul style="list-style-type: none"> <li>○ Standing Quadriceps Stretch</li> <li>○ Kneeling Hip Stretch (Flexibility Level 3 – Fitness Cards)</li> <li>○ Seated Rotation Stretch (Flexibility Level 5 – Fitness Cards)</li> <li>○ Knee to Chest (Flexibility Level 1 – Fitness Cards)</li> <li>○ Triceps Stretch (Flexibility Level 3 – Fitness Cards)</li> </ul>

## Sample Cool-Down 2:

<b>Low Intensity:</b>	<ul style="list-style-type: none"> <li>○ Walk 3-5 minutes on a flat area</li> </ul>
<b>Stretching:</b>  30 seconds each	<ul style="list-style-type: none"> <li>○ Hamstring Stretch</li> <li>○ Quadriceps Stretch (Flexibility Level 2 – Fitness Cards)</li> <li>○ Crossed Leg Hip Stretch (Flexibility Level 5 – Fitness Cards)</li> <li>○ Butterfly Stretch (Flexibility Level 3 – Fitness Cards)</li> <li>○ Triceps Stretch (Flexibility Level 3 – Fitness Cards)</li> </ul>

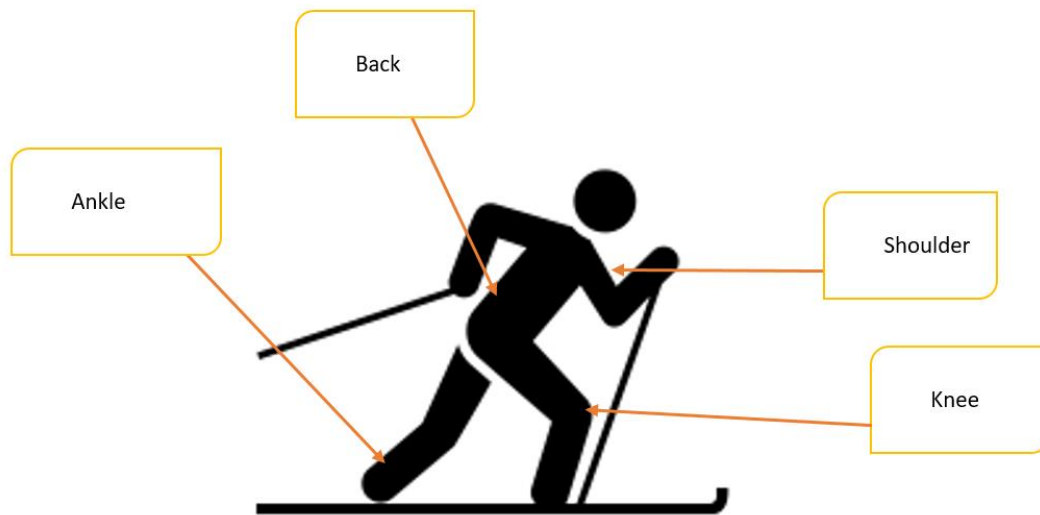
### Coaches' Notes:

- Think about the stretches that might be easier to do in your particular setting. There are modifications to most stretches in order to do them standing, seated or laying down.
- Develop a standard routine for your cool-down. Not only will it provide an opportunity for you to review the session or provide suggestions leading into the next practice, it will also create a routine you can suggest your athletes to do at home.
- Observe how your athletes are stretching. Ballistic or 'bouncing' movements while stretching can cause injury. Stretching may feel a bit uncomfortable but should not be painful.
- Use the time at the end of practice to encourage healthy habits at home.



## Possible Injuries in Cross-Country Skiing

Injuries are problems for athletes in all sports, at all levels. It is beneficial for coaches to be aware of common injuries that athletes could experience in their sport.



*Figure 4: Common Cross-Country Skiing Injuries*

The graphic above highlights four of the most common injury sites for cross-country skiers. Of these injury sites, the ankle and knee are likely to be the most common site, often the result of overuse due to the repetitive nature of skiing. **Any injuries that athletes happen to obtain during SO training should be immediately tended to by a healthcare professional** (doctor, nurse, and physiotherapist). If an athlete reports to you with signs or symptoms of any form of injury it is recommended to send them to a healthcare professional.

Appropriate warm-ups and cool-downs can help to reduce the risk of both acute and overuse injuries specific to alpine skiing. Additionally, strength and flexibility training either in practice or at home can further prevent injuries and improve performance. Specifically, quadriceps, glutes and hamstring strength and flexibility should be a main focus when trying to prevent injuries.



Core strength and stability should also be a priority in any cross-country skier's training plan. A strong core helps athletes maintain their athletic posture, stability and balance, leading to less likelihood of injury. Cross-country skiers need to have good posture in all-terrain, especially during movement.

### **Cross-Country Ski Specific Physical Conditioning**

Physical conditioning is the improvement of physical health through programmed exercises. Cross-country ski specific conditioning is the use of exercises specifically related to the movements used by players to develop cross-country ski specific fitness. The main components of physical conditioning are cardiovascular endurance, muscular strength and endurance, flexibility, and skill development. A successful conditioning program can be accomplished with very little equipment through bodyweight exercises, jumping drills, etc. Some teams may also like to incorporate equipment like resistance bands, weights, stretching straps.

In cross-country skiing, these components can be developed **on-snow** or on **dry land** through various exercises, activities and drills. . A combination of *on-snow* and *dry land* conditioning is optimal for a cross-country skier's performance.

#### **On-Snow Conditioning:**

*On-snow* conditioning is one conditioning option for coaches for their athletes as replicates what athletes will do while cross-country skiing. Examples of *On-Snow* conditioning are:

- Uphill and downhill routes
- Accelerations and decelerations
- Diagonal strides
- Shuffles

#### **Dry Land Conditioning:**

*Dry Land* conditioning involves building up strength, endurance and flexibility in the muscles that will be used the most while cross-country skiing. This can be done through a variety of methods using bodyweight exercises, those with added resistance, or sport-specific movement patterns. Basic skills such as stance, balance and rotation should also be a focus of dry land conditioning.

Examples of *Dry Land* conditioning are:

- Core strength exercises
  - Plank hold/side plank
  - Leg raises
  - Curl ups
  - Hip bridges
- Bodyweight strength exercises
  - Push ups
  - Triceps Dips
  - Squats
  - Wall Sits
  - Lunges – Forward and Lateral
  - Calf Raises
- Cross-Country Skiing Basic Skills
  - Stance and Weight Distribution
  - Shuffle and glides
  - Poling



## **Fitness Resources**

Fitness for coaches [link](#).

In addition to the [Fit 5 Guide](#) and other resources available [online](#), Special Olympics also offers online Fitness specific courses where coaches can learn more about Fitness, SO athletes, and how the two work together!

The courses include:

- Fitness for the Sport Coach
  - This module is designed to provide Sport Coaches with information that will help them to introduce fitness into their ongoing sport program.
- Fitness Coach Online Training
  - This module is designed to provide volunteer Fitness Coaches with information that will help them to be effective at engaging our athletes in fitness.

Head coaches could consider bringing in a coach to work specifically on fitness relevant to their sport (fitness coach), or they could utilize their assistant coach and have them trained up on the online courses to gain a greater knowledge of fitness and take the lead on fitness training for their athletes. Either way, we would encourage head coaches to use the online learning modules as a way of improving their knowledge and understanding of fitness.

Check out [learn.specialolympics.org](https://learn.specialolympics.org) to find these courses, along with many other available courses, and get learning today!



# The Role of the Coach

For more information on your role as a coach, read our Special Olympics supplement available here:





# Sports Psychology

## What is Sports Psychology?

Sports Psychology is a name given to a topic that includes many different areas related to sports performance. These include (Association, American Psychological, 2021):

- Goal setting;
- Imagery and performance planning;
- Athlete motivation
- Handling disappointment and poor performance.

Ultimately, Sports Psychology relates to how an athlete's mindset assists or hinders their athletic performance, be that training, competition, or recreationally.

As a coach, your role is to assist an athlete to perform at their best – this includes psychologically as well as physically. This section will briefly discuss a number of Sports Psychology concepts that will assist you in your coaching of Special Olympics Athletes.

For further information on the topic, it is recommended that you explore expert research on the topic such as academic articles, online learning courses, podcasts, and books.

## Key Areas of Sports Psychology:

### Motivation:

What is motivation?

Often we consider motivation to be making that last lift in the gym, doing that last run up the hill, and going out to win in the final of a competition. However, these are only a select few examples. Most of the time motivation can be; going to training, sticking to your exercise routine, or drinking all of your water for the day.

Motivation is goal-dependent. This means that each person will have different motivation because each person will have different goals.

According to Burton and Raedeke in *Sport Psychology for Coaches* (2008), great coaches know that they don't give athletes motivation. Rather, they create the conditions or team climate in which athletes motivate themselves. Coaches do this by recognizing the importance of **intrinsic and extrinsic motivation**.



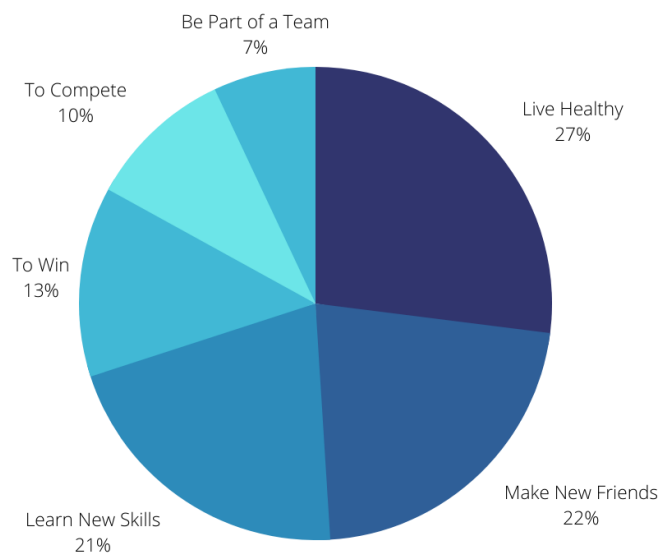
**Intrinsically Motivated Athletes** participate for the love of the sport. They enjoy the process of learning and mastering difficult sport skills and play for the pride they feel when working hard toward accomplishing a challenging goal.

**Extrinsically Motivated Athletes** participate in sport in order to receive praise, to win, or to avoid punishment. The process is often not as enjoyable, they don't enjoy completing difficult tasks and often results in sport drop-out down the line.

Extrinsic motivation can also be useful in assisting athletes to learn a skill or try a new task. Using praise as a motivator can help to encourage athletes to explore or complete a task they normally would not attempt. However, extrinsic motivation should not be used long-term, and should be phased out over time if it is being used to help motivate athletes to complete tasks.

For example, a golfer does not like hitting the ball out of long grass and is willing to take a shot penalty to move the ball. Encourage the athlete attempt the shot out of the long grass and praise them for their effort. Over time, as the athlete becomes more comfortable performing the shot and continues to hit the ball out of the long grass, praise should be reduced.

Special Olympics carried out an Athlete Satisfaction Survey. This survey aimed to find out why athletes participated in Special Olympics sports and their motivation to do so. The results can be seen in the pie chart below.



*Figure vi: Athlete Satisfaction Survey Results - Why athletes participate in Special Olympics Sport. These can be considered to be sources of motivation for athletes and should be considered in your decision making as a coach*



## **Motivation Myths:**

### **Motivation Myth 1: Athletes are either motivated or not motivated**

Some coaches believe that motivation is simply a personality trait, a static internal characteristic. They believe that an athlete either has motivation or doesn't. They don't believe motivation is something coaches can develop. For these coaches, the key to having a motivated team is to find and recruit athletes who have the right personality. However, while some athletes are, in fact, more motivated than others, this view does not provide any direction or guidance on how coaches can help develop and sustain athletes' motivation. The fact is, coaches can help athletes develop motivation.

### **Motivation Myth 2: Coaches give athletes motivation**

Other coaches view motivation as something they can inject into their athletes on demand, like a flu shot, by means of inspirational pep talks or gimmicks. They may use slogans, posters, and bulletin board quotes from upcoming opponents. These strategies may be helpful, but they are only a small piece of the motivation puzzle. There is much more to the story—motivation is not something coaches can simply give their athletes.

### **Motivation Myth 3: Motivation means sticks and carrots**

Some experts suggest that effective motivation means using carrots (rewards) and sticks (punishments) to drive athletes to do things they would not do on their own. This may seem innocuous, but think about it on a deeper level. It assumes that athletes don't want to do something, so the coach will provide motivation to make them do it through punishments or rewards. Coaches who emphasize the stick, in the form of chastising, criticizing, yelling, coercing, and creating guilt, often find themselves swimming upstream. No matter what they try, they meet resistance and negative attitudes. Not only is this approach ineffective, it saps the enjoyment out of sport. Coaches must understand athletes' needs in order to create a team culture that naturally motivates them.

### **Confidence (through Goal Setting)**

Sports confidence is the belief in yourself to execute or complete a task or skill relevant to the sport or activity you are participating in. Sport confidence should be gained through consistent execution of the skill or task in a controlled environment (training session). This can then be applied in a more chaotic environment (competition). For example; Maureen is confident she can complete the 100m breast stroke in her local competition because she has completed this particular stroke many times in her training.

*An athlete with lack of self-confidence doubts whether they are good enough, whether they have the qualities necessary for success (Plakona, Parčina, Ludvig, & Tuzović, 2014).*

1. Developing sport confidence in athletes helps to make participation fun and is critical to the athlete's motivation.
2. A considerable amount of anxiety is eliminated when athletes know what is expected of them and when they have to be prepared.
3. Mental preparation is just as important as skills training.
4. Progressing to more difficult skills increases the challenge.
5. Dropping back into easier skills increases one's confidence.

### **Developing Self-Confidence through Goal Setting**

Realistic yet challenging goals for each athlete are important for the motivation of the athlete, during both training and competition. Accomplishing goals at practice through repetition in settings that replicate the competition environment instill confidence. Sport confidence in athletes helps make participation fun and is critical to the athlete's motivation. Setting goals is a joint effort between athletes and coaches.

Goal setting must be a collaborative effort. At the end of the day, the goals are set for the athlete for what they want to accomplish, not what their coach, parents, friends, or family want them to accomplish. A coaches' role is to assist the athlete in creating the goals that align to their desires, and to keep the athlete on track to achieve those goals.

### Goals should be:

1. Structured as short-term, intermediate and long-term.
2. Viewed as stepping stones to success.
3. Created and accepted by the athlete.
4. Used to establish the athlete's training and competition plan.
5. Flexible
6. Written down
7. Identified as either performance goals or practice goals
8. Achievable - Sometimes athletes will need to seek support to accomplish their goals

Following the SMART Goals model is a simple way to set goals for your athlete in a collaborative and logical way.





## **Handling Disappointment (performance/success oriented/injuries)**

Disappointment can present itself in many different ways for an athlete. This can be:

- Poor/Below expected performance (in training or competition)
- Good performance without the desired outcome (winning/scoring/placing)
- Disappointment for others (teammates/friends)
- Acquiring an injury (meaning inability to compete/perform)
- Not receiving praise (from coach/friend/family)

And many more reasons!

As a coach, it is essential that you assist your athletes in handling disappointment. Not only is this beneficial to them in sport, it is a life skill that can be applied in almost any other context (such as job applications, studying for school/college, acquiring an illness, etc.).

How disappointment can be seen in athlete behaviour:

- Anger
- Frustration
- Going within themselves
- Feeling overwhelmed (tears)
- Loss of focus
- Loss of motivation to train/compete
- Loss of interest in the sport

Disappointment often presents itself as stress in athletes. Special Olympics offers the Strong Minds program to assist athletes in learning how to cope with stress. This can be stress from competition or the stress that comes from daily tasks.

Check out the [Strong Minds](#) page for all resources required.

A useful tool for coaches working with athletes showing signs of stress would be the [Strong Minds Coach's Playbook](#). These strategies can help athletes with the stresses of life and sport, and promote healthy thoughts and coping mechanisms.

## Strong Minds Tips for Stress

### Coach's Playbook

Special Olympics  
**Strong Minds**



Strong Minds is an interactive learning activity focused on developing adaptive coping skills. Competition provides a natural opportunity to develop active strategies for maintaining emotional wellness under stress, such as: thinking positive thoughts, releasing stress and connecting with others. During Strong Minds, your athletes will learn the following strategies and will benefit greatly if you can incorporate these strategies into practice and games.

### Station 1

**1** Squeeze the ball for 3 seconds.



**2** Release the ball and any tension.



#### Coach Recommendations

- On the way to a game or competition
- During a pre-game team talk
- After the game during a team talk
- For an athlete sitting on the bench or in between turns/games

### Station 2

**1** Think a good thought.



**2**



- During practice and games, state positive statements to athletes
- Start practices with a song with a positive message
- Ask an athlete to start each practice with a positive statement to the team
- After the game, ask the athletes what went well

### Station 3

**1** Smell the flower [pinwheel].



**2** Blow the flower [pinwheel].



- Encourage deep breathing during stretching
- Teach the athletes to use deep breathing during a stressful situation in a game (ie. Before shooting a foul shot).
- Before a game, do a few rounds of deep breathing as a team

## Strong Minds Tips for Stress

### Coach's Playbook

Special Olympics  
**Strong Minds**



#### Station 4

**1** Try a few stretches



**2** How do you feel?



- Make sure athletes hold static stretches for at least 30 seconds
- Incorporate deep breathing into stretching routines
- Lead stretches that also focus on relaxation
- Encourage athletes to do a few stretches before they go to bed each night

#### Station 5

**1** Support others



**2** Seek support from others



- Set up drills for partner work to allow athletes to build connections
- Encourage athletes to use positive messages to teammates during practices and games
- Remind athletes that their coach and teammates are there to support them
- Encourage family members to also incorporate these strategies with their athletes

#### Station 6

**1** Pick the strategies you like



**2** Use the strategies in everyday life



This Strong Minds Tips for Stress concept was created by Special Olympics Texas

- Encourage athletes to visit Strong Minds at Healthy Athletes or Game Ready Minds at Performance Stations
- Remind athletes who visited Strong Minds to utilize the skills they learned in practice and games
- Ask the athletes to practice these strategies at home

Communication strategies by the coach, fellow athletes, families and friends will help an athlete handle disappointment. Listen to what the athlete says and why they may be disappointed. Offer positive switches – positive comment – correction – positive comment to take the athlete's attention away from their disappointment. The athlete's effort, attitude and preparation should be emphasized, not the result of the competition.





## Athletes in Training

### Self-Talk & Imagery

Self-talk represents the things you say in your head about yourself.

Self-talk can sometimes be negative e.g., “that team is much better than ours”.

Positive self-talk involves repeating a helpful and positive word or phrase such as “I am fit and ready to play”.



Imagery or visualization is a mental process. It allows you to simulate (imagine) experiences in your mind. Often these experiences have the desired outcome e.g. scoring a penalty kick in football.



Imagery also involves using your senses (smell, sound, taste, touch, and feeling) to create an accurate experience in your mind.

Positive self-talk and imagery promotes confidence and success. Coaches should help educate their athletes on the value of positive self-talk and imagery.

One thing coaches can do is help athletes establish a pre-performance routine. At the start of a competition athletes can very briefly

(10-15 seconds) do 4 helpful steps:

1. Close your eyes
2. Take a few deep calming breathes
3. Repeat a positive phrase “I am ready”
4. Picture yourself successfully making a perfect start, or finishing strongly.

This routine can be created and modified at training. Find what works best for the athletes. Take this pre-performance routine into a competition to help athletes best prepare mentally.

## Athletes at Competition

### Psychological Preparation

Just as you train your athletes physically and tactically for competition, you equally need to prepare them psychologically.

Physical Readiness + Psychological Readiness = Competition Readiness



Readiness of the athlete means being focused and prepared for competition.

- **Psychological Readiness:** Being a participant in the sport, showing confidence and an understanding strategy.
- **Physical Readiness:** Being physically conditioned and trained in the skills required for competition.

How to Psychologically Prepare for Competition:

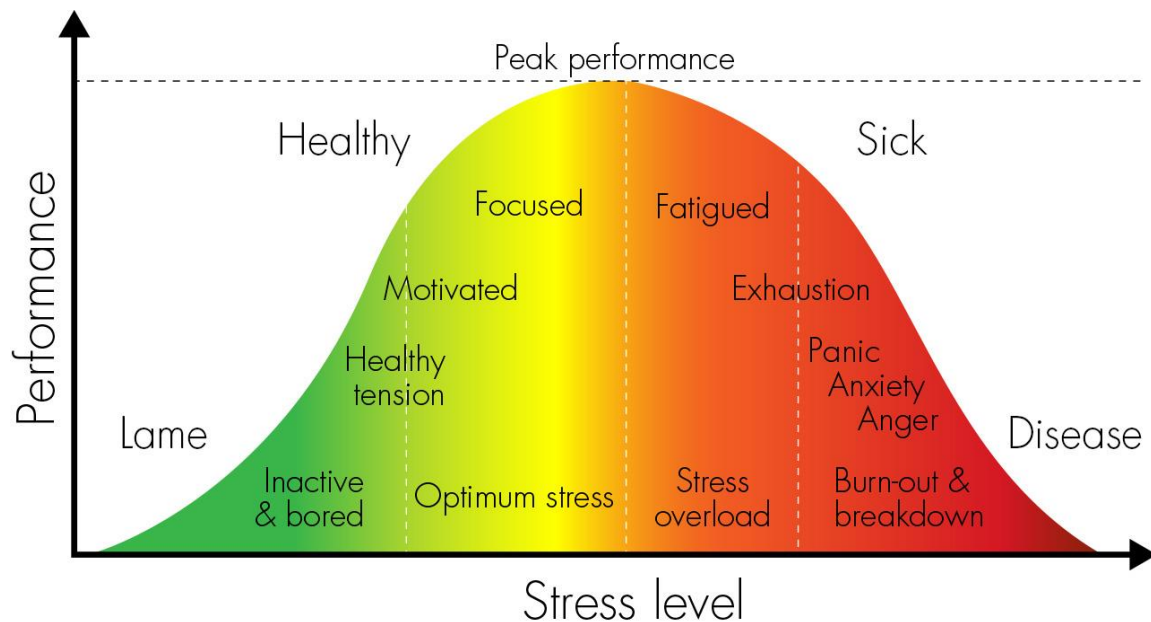
1. Create and Set Competition Goals
2. Prepare for competition setting
  - a. Tell your athletes what to expect
  - b. Use videos of previous competitions
  - c. Have experienced athletes speak with inexperienced athletes
  - d. Have all equipment ready and available before time
3. Train as you plan to compete
  - a. Make sure training is properly preparing your athletes for competition
  - b. This will give athletes confidence going into competition performance
4. Practice Strong Minds Stations

Anxiety or stress is normal before a competition. Athletes who do not suffer from some sort of anxiety or stress before performance would be in the minority.

Competition anxiety occurs when an athlete perceives a competitive situation as potentially threatening, resulting in an aversive emotional response (Schaefer, Vella,



Allen, & Magee, 2016). Although some level of competition anxiety is considered to be normal, when competition anxiety exceeds a threshold level it can become detrimental to performance, motivation, and enjoyment (Schaefer, Vella, Allen, & Magee, 2016).



*Figure vi: The relationship between stress level and performance. This graph shows where peak performance can be achieved with a moderate stress level. It also shows the dangers of high stress and anxiety. Credit cescasdestinationhealthy.wordpress.com for image.*

As a coach, it is your role to assist your athlete in not exceeding this anxiety threshold.

Simple measures such as:

1. Pre-Performance Routine
2. Strong Minds Stations
3. Alternative tasks to take their mind off of the competition/performance

These measures can be beneficial in the psychological preparation for athletes before competition.

There can be times when anxiety becomes too much for an athlete. They may not want to train or compete. The idea of competition or performing will cause them serious stress. If this is noticeable for an athlete within sport and outside of sport (social life, education, family life, etc.), it is recommended that the athlete talk to a professional. This can be a family doctor, a counsellor, or a psychologist.

## **Post-Performance Psychology**

### **What is success – individual to the athlete**

Many athletes will equate winning and losing with success and failure. This is often a self-defeating perspective as athletes only partly control the outcome of competition and often winning is unrealistic.

Coaches should focus on individual effort, self-improvement and learning as barometers of success.

Each athlete will have their own take on what success is to them.

If an athlete feels they are unsuccessful at a competition:

- ✓ Reassure them that winning isn't everything
- ✓ Refer back to the athlete's goals
- ✓ Identify where they have achieved or progressed towards their goals
- ✓ Praise their effort, not performance
- ✓ Remember the Special Olympics athlete oath;  
*"Let me win. But if I cannot win, let me be brave in the attempt."*

### **How to win & lose – code of conduct**

All athletes should follow the Sportsmanship section of the [Special Olympics Athlete's Code of Conduct](#).

- I will practice good sportsmanship.
- I will act in ways that bring respect to me, my coaches, my team and Special Olympics.
- I will not use bad language.
- I will not swear or insult other persons.
- I will not fight with other athletes, coaches, volunteers or staff.

As a coach, your role is to remind the athletes of their conduct and how to manage themselves win, lose, or draw. The important thing to do when educating athletes on their code of conduct is to explain 'why'.

Explain that athletes should act in the same manner they would want others to act if they were in the same position. If an athlete is successful, congratulate them. If an athlete is unsuccessful, encourage them for next time.

Your role as a coach is to be a role model to your athletes. You should always demonstrate good sportsmanship throughout competition, training, or events. Athletes often ‘feed’ off of their coach’s energy and enthusiasm – make sure yours is always positive and following good etiquette.



*Figure vii: Some roles a coach may take on in addition to being a role model.*

### **Athletes in a heightened state of anxiety post-performance**

Can be after achieving success (over-excitement) or not achieving desired outcome (disappointment).

If an athlete is excited and celebrating, do not discourage this! This is the feeling we all long for as athletes, coaches, and fans! Help the athlete to celebrate in a positive and safe manner.

It is important to not discount feelings of disappointment. It is appropriate to be disappointed when we lose a game or match. The challenge for the coach is to redirect that disappointment into a renewed commitment to training for the next competition or season. Becoming obsessed with losing is not a healthy or natural reaction for anyone.

Here are some strategies for athletes experiencing heightened states of anxiety:

1. Use Strong Minds stations
  - a. Positive Messaging
  - b. Deep Breathing
  - c. Stretching
2. Offer support – through hi-fives, knuckle touches, other forms of comfort that the athlete is accepting of and comfortable with
3. Have a consistent post-performance routine (win, lose, or draw)
  - a. Stretching
  - b. Debrief
  - c. Praise for effort

All athletes are different and will have different ways of coping. Work with your athlete what their best post-performance routine should be and when to carry it out.

For some, shortly or immediately afterward is appropriate. If you leave it too long, it becomes forgotten.

For others, they may need more time to decompress – **there is no one size fits all.**

The athlete's effort, attitude and personal skills attainment should be rewarded and positively reinforced.

### **Educating Athletes**

Each athlete is different. Simple guidelines and strategies on how to educate athletes will not be universally applicable to athletes. However, having a knowledge of the foundations as listed above will help you to best prepare your athletes for training and competitions.

Some simple tips for educating athletes about sports psychology are:

1. Introduce elements bit by bit
  - a. Start with goal setting
  - b. Strong Minds stations
  - c. Introduce pre-performance routines
2. Use sporting examples to explain elements of psychology
  - a. Confidence
  - b. Disappointment
3. Work in groups
  - a. Have open discussions about elements before, during, and after training and competition

### **References**

- Association, American Psychological. (2021, March 11). *American Psychological Association*. Retrieved from American Psychological Association: <https://www.apa.org/ed/graduate/specialize/sports>
- Plakona, E., Parčina, I., Ludvig, A., & Tuzović, A. (2014). Self-Confidence in Sport. *Sport Science*, 47-54.
- Schaefer, J., Vella, S. A., Allen, M. S., & Magee, C. A. (2016). Competition Anxiety, Motivation, and Mental Toughness in Golf. *Faculty of Social Sciences*, 309-320.



# Teaching Cross-country Skiing Skills

The following 12 techniques and additional skills include description of the technique, coaching tips and specific drills.

## **Classic Skiing**

1. Diagonal Striding
2. Double Pole
3. Kick Double Pole

## **Uphill Technique**

4. Herringbone
5. Side-Step

## **Downhill Technique**

6. Wedge
7. Step Turns

## **Additional Skills**

8. Star Turns

## **Skating Technique**

9. V1
10. V2 and V2 Alternate

These fundamental ski skills are the components of basic ski lessons. They can be taught at an introductory, recreational and advanced level depending on the skill set of your athletes. By learning these basic skills, athletes will both acquire and develop on snow abilities and a sense of balance, stamina, and coordination. Learning these skills will also enable an athlete to ski the varying types of terrain found at a nordic center, from flat sections to uphill and downhill.





## Classic Skiing

Classic skiing includes diagonal striding, double poling and kick double pole. The techniques are taught by developing abilities on snow through a progression of movements. For example, in order to diagonal stride an athlete needs to learn the basics of balance, gliding on snow and weight transfer. Consider the following technique progressions and combine with ski games to create a fun, motivating and challenging lesson.

### 1. Diagonal Striding

Striding can be broken down into its different components to create a progression of abilities: Athletic Stance, Arm Swing and Weight Shift

The primary starting position for cross-country skiing is the athletic stance, also referred to as a comfortable stance or the ready position. The athletic stance carries over to a variety of sports and ensures a stable and engaged start to a movement, as compared to starting standing straight up.

#### Skier's Athletic Stance

- Feet are shoulder width apart, with equal weight on both feet.
- Hands are held in front.
- There is a slight bend in the knees and ankles.
- Round the shoulders and lean forward to put pressure on the ball of the feet.

This position is also called the “Gorilla Stance”. By rounding the shoulders and upper back you allow the arms to swing freely. Another visual description could be the letter “C”. The upper curve of the “C” is created by the rounded shoulders and the lower curve of the “C” by the flexion in the lower body.

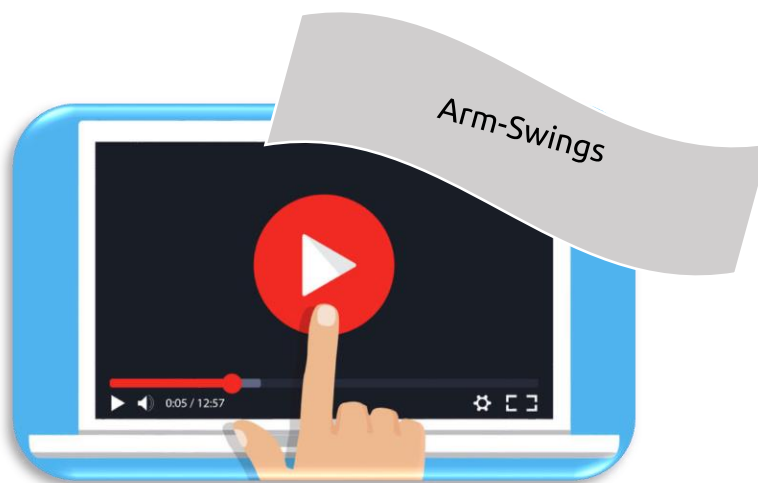
#### Drills

- Review indoors before adding equipment or have it be part of the warm-up.
- Use a life-size picture on the wall, like a Flat Stanley, to help the athlete see what the position looks like.
- Squat while standing still, moving in and out of the athletic stance.
- Put red tape across the ball of the foot on the ski boot to create a visual reference for where they need to put pressure on their feet. Do the same with the coach's boots.

## Arm Swing

Next comes the diagonal striding arm swing. Even if an athlete does not use poles, this upper body movement is still important. The arm swing will help to keep the upper body engaged and will help the athlete remain balanced while in the tracks, gliding downhill or doing herringbone.

- Start with the athletic stance with arms hanging relaxed in front of the body.
- Swing one arm forward to shoulder height, while swinging the other backward, not quite to shoulder height.
- Repeat, alternating arms to create a rhythm.



## Coaching Tips

- The arms swing like a pendulum, elbows slightly bent and shoulders remain relaxed.
- Start slowly to ensure proper technique and coordination.
- An athlete might have a tendency to not swing the arms in a parallel motion. If this is the case, slow down the motion and assist in correct movement.

## Drills

- Mimic an athlete or have them practice in front of a mirror, for additional visual feedback.
- Have the athlete think of holding a cup of water in their hand. As they swing the arm forward they are “pouring” out the water.

- Face the athlete and have them hold the grip ends of their poles. The coach holds the opposite ends of the poles and initiates the diagonal arm swing movement. This helps the athlete “feel” the nature of the arm swing and timing. This can also be done standing behind the athlete, but if in front, it gives them a mirror image to emulate.



### Weight shift

The third skill to add to the athletic stance and the arm swing is weight shift. This movement is key to both classic and skate techniques. Shifting body weight from one foot to the other while staying balanced in an athletic stance is important because it creates movement and momentum on skis. The following progression is like a deliberate walking motion with emphasis on the transfer of weight from one foot to the next.

- Start with the athletic stance.
- Step forward with the right foot as if to walk.
- Lift the left heel off of the ground and shift more weight to the front right leg.
- Reach forward with the left arm and back with the right arm.
- Balance in this position.
- Shift weight by stepping forward with the left foot.
- Lift right heel off of the ground.
- Reach forward with the right arm and back with the left arm.
- Balance in this position.
- Alternate sides and create a rhythm.

### Coaching Tips

- This combination skill will take coordination and focus. Challenge your athletes to see who can move the slowest.
- Use an assistant if an athlete is having trouble balancing.
- Start with small, slow movements.



- In the profile of the athlete in this position the nose, knees and toes will line up.
  - Toe-Knees-Nose can be a good body position reminder.

### Drills

- Develop balance—stand on one leg at a time.
- Develop balance—stand on one ski at a time.
- Connect this movement with a dance move.
- Step Drill (advanced)—see video 2



### Weight Shift and Arm Swing on Skis

When the athlete is ready and can demonstrate the athletic stance, arm-swing and weight shift, give it a try in combination and on skis.

- Start with skis on, in the classic track, and in the athletic stance.
- Walk on skis with a corresponding arm swing.
- Make necessary adjustments so that the opposite arm and leg move forward at the same time.

### Coaching Tips

- To make the transition from walking to gliding, have the athletes “shuffle” to get the feel of the movement of their skis in the track.
- Nose-Knees-Toes—reinforce proper body position. If the athlete is too upright or too far back, they will not be able to depend on their full balance capability.
- Keeping the knees bent will give them the most control and create the most stable position.
- Synchronized movements—reinforce coordinated arm swing and leg movement.

### Diagonal Stride with Poles

Once an athlete feels comfortable moving in the tracks, re-introduce their poles. Emphasize that at first it is easy to use the poles for additional side support. However,

with a forward athletic stance and proper poling motion they will be able to use the poles to make them go forward. Encourage a beginner to strive to move forward the best they can.

- Start in an athletic stance in the track.
- Hold the poles halfway down the pole and repeat diagonal arm swing.
- When an athlete is able to do this, put on the poles and double check that the straps are snug and properly strapped.
- Start with the basic walking motion and then slowly add in the arm swing, and finally the pole plant.
- Now they will be ski walking in the track.



For those athletes who were ready to try to kick and glide, have them attempt the same movement with poles. The same fundamental body position and movements apply when using and not using poles.

- Keep the arms relaxed and slightly bent, swinging opposite to the leg movement alongside the body.
- Pole next to the ski and just beyond the tip of the boot, not behind.

The diagonal stride is a fundamental starting point for all Nordic techniques. It can be used on flat and gradual and steep uphill. Striding requires coordination, but if an athlete can sufficiently demonstrate this technique they will be able to apply the same sense of balance and coordination to other techniques.

Working on this basic technique will challenge their physical motor skills and teach them the body control and awareness needed to manoeuvre safely on skis. Also, to be able to glide freely on the snow will be a lot more fun!





### Kick and Glide

“Kicking” off one ski and on to the other is what propels the athlete forward in diagonal striding. When the athlete “kicks” they are compressing the ski to the ground for the wax or fish scales to make contact and stick to the snow. This gives them a platform to kick forward from. Try the method of kicking and gliding if your athletes are willing and ready to learn diagonal striding.

### Coaching Tips

- With skis off, have the athletes skip with the same opposite arm, opposite leg coordination. The power that they need to “skip” is the same power they’ll need to “kick” phase of striding.
- Back on the skis and in the track, have your athletes start in the athletic position. By leaning the body forward, they should be balancing on the ball of their foot to prepare for the kick. Shift their weight onto the right ski and “kick” down and jump forward onto the left ski.
- Repeat. Striding Drills

### Beginner

- Inside—standing on paper plates, shuffle along the floor in a striding motion to experience the feel of sliding or gliding.
- Walk, run, glide. Repeat this progression to reinforce how to get glide.

### Intermediate

- Alternate between short strides and long strides on flat terrain. This drill helps the athlete to lengthen their stride and increase glide.
- Without poles, stride with arms high in the air. This drill helps to reinforce high hips and the pressure put on the ski to create kick.

### Advanced

- Continue to develop balance. Walk, run, then hold a glide balancing on one ski.
- Stride without poles on flat, gradual uphill and then steep uphill terrain. Challenge the athlete to set their kick, keep their weight shift and strive for glide.



## 2. Double Pole

Skiing can be thought of as one movement done over and over again. When an athlete is learning encourage them to make four coordinated strides and pole plants, then five, six and so on. When skiing long distances they will be able to do that motion hundreds of times once they learn it. However, most ski trails will have undulating terrain and turns. Classic technique can change accordingly to continue to move through those obstacles. The change in technique will also use different muscles. The switch from striding to double pole is one such example.

The double pole technique is used primarily on flat terrain and slight downhill where the gliding is easy, and the skier can take advantage of gravity. When learning the technique the athlete will develop specific strength in the upper body and core. Start in the athletic stance in the track with equal balance on both skis.

- Raise both arms to shoulder height and plant both poles alongside the skis. Pole plant should be just beyond the skier's binding.
- Lean forward onto the poles, using your core muscles and upper body push down and through with the poles.
- Arms extend just beyond the body to complete the push.
- Raise the body back to the athletic stance.
- Raise the arms back to shoulder height and repeat the poling motion.

Have the athletes think about a train moving along the train tracks. Their double pole motion is like the rising and falling of the pistons. Once they get this movement, they are creating human powered locomotion. Knowing how to double pole is also helpful when learning to do the basic skate technique, V1.

## Drills

### Beginner

- Plant poles just in front on the ski boots and lean forward. Explain how their body weight creates power and moves them forward.
- Frog hops (two-footed forward hop) without skis on. Start small, then go as far as possible. Make it a game or a skill that they can improve upon with each ski lesson. This helps teach forward body movement in double pole.

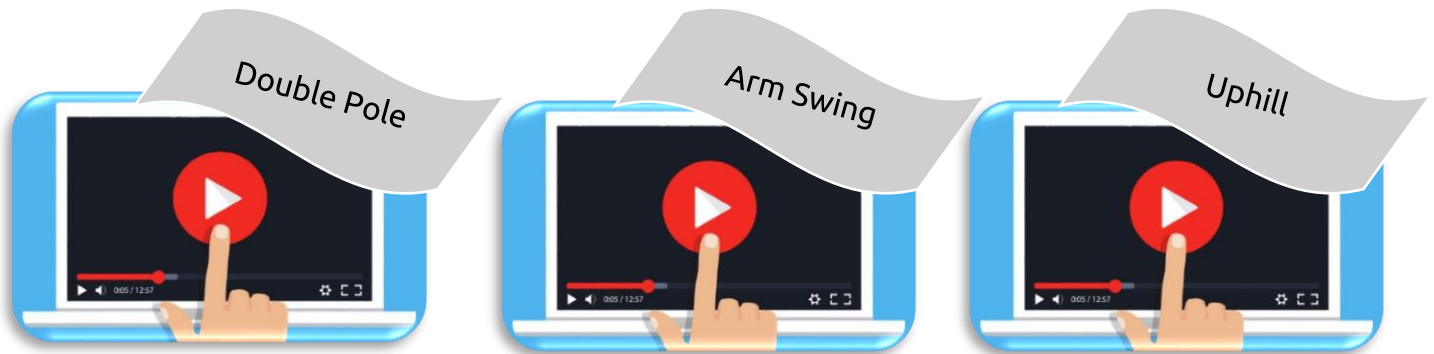


## Intermediate

- Double pole distance—set cones along a track to determine the distance that the athlete has to try to double pole without stopping. How far can they go?
- Double pole with speed—set similar distance markers and have the athlete double pole with a higher tempo. Time the difference between fast and slow.

## Advanced

- Double pole over the crest of a hill before going down. This helps work on transitions in a long ski or competition, and helps the athlete maintain speed.
- Pole with one arm—try to do the double pole motion with only one arm/pole at a time. This is a strength drill and helps emphasize the use of the back and shoulders in the poling motion.
- Double pole starts. Practice double poling with speed and power to use at the start of a competition.



### 3. Kick Double Pole

Used when the skier's speed is too great for an effective diagonal stride and too slow for ordinary double poling.

- Extend both arms forward in preparation for double pole plant while pushing off the snow with one foot. Extend the other leg naturally behind, lifting the ski slightly off the snow.
- Plant poles and begin double pole power phase and bring both feet together.
- Hips are over toes and weight is transferred to poles as upper body flexes toward the snow.
- When hands are even with the knees, push back with the arms.
- Once the arms are fully extended back, the skier returns to an upright position and prepares for the next double pole plant phase.
- Repeat the manoeuvre alternating leg kick.



## **Uphill Technique**

The ultimate goal for an athlete will be able to diagonal stride up most gradual hills. In the learning process there are two other techniques a skier can use to scale an uphill of any grade: herringbone and sidestepping.

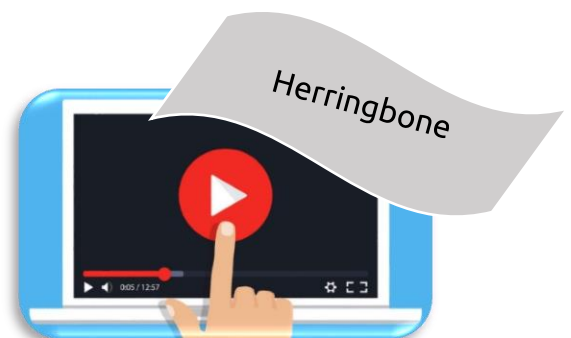
### **4. Herringbone**

This technique is used when the hill becomes too steep to keep the skis parallel in a track. When this is the case, plan ahead and change techniques before the steep pitch begins. Have the skier step out of the track and into a “V” position, with the tips of the skis far apart and the ends of the skis nearly touching. Instruct the athlete to put pressure on the insides of the skis by pushing down into the hill with their knees. This will give them the necessary traction they need to scale the incline.

- Start in an athletic stance, but with the feet and skis in a “V” position. Take note that more pressure needs to be put on the inside of the feet and inside edge of the skis to hold the skier in place.
- Plant the poles to the sides of the body just outside of the ski “V”, down slope.
- Step forward and up the hill with the right ski, while pushing off the left hand pole for support.
- Once stable, shift weight and step up the hill with the left ski and push off the right hand pole for support.

### **Coaching Tips**

- As the hill gets steeper, the athlete needs to widen the “V”.
- When the skier has scaled the hill, have them look back and notice the “herringbone” pattern they have created in the snow.
- If necessary, help to set the athlete’s skis, bend their knees and plant their poles to the side. When first learning to go uphill, stand behind for support and to prevent any downhill movement.





## Drills

### Beginner

- Pretend they are walking like a duck, waddling up the hill. This will emphasize weight shift and uphill movement,
- Try without poles and hold their hands behind their back. This will require proper body position and balance.

### Intermediate

- Challenge them to scale the hill in fewer steps than before.
- Challenge them to “run” up the hill in the same formation to see if they can quicken their tempo.

## 5. Side-Step

An alternative way, although not necessarily an easier way, to scale an uphill is to side-step up.

Herringbone requires inner leg strength and coordination to move alternating arms and legs. Sidestepping is more straightforward. It also functions as a way to move laterally across flat terrain.

- Determine the athlete’s dominate side (which hand do they write with?).
- Before the hill begins, have your athlete step out of the classic tracks to stand horizontal against the hill with their dominant side on the uphill.
- Keep a shoulder width stance and poles firmly planted at the athlete’s feet.
- Slightly shift weight onto the downhill leg and pole and step up the hill with the leading uphill leg and pole.
- Slightly shift weight onto the uphill leg and pole and step up the hill with the downhill leg and pole.
- Look up the hill to make sure they are headed in the right direction along the trail AND to make sure other skiers are not coming down the hill.

## Coaching Tips

- Move in small increments to maintain balance. Compare to an inchworm—moving one inch at a time.



- Have athletes keep their knees bent to maintain balance both in the static position and when step up the hill.
- Have athlete's imagine they are stepping sideways up a staircase—only one step at a time.



## Drills

### Beginner

- Use a visual floor map that directs the placement and movement of their skis. Think about a floor map for dance steps.
- Practice on a staircase at home or in the ski lodge. Mimic the same body movements to ascend the stairs. Keep the hands up and forward and remain in the athletic stance.

### Intermediate

- Pick two points, first on the flats then on an uphill, for your athletes to side step between.
- Alternate between sidestepping with and without poles to work on lateral balance and stability.

### Advanced

- On a hill, transition from a side-stepping position to herringbone.
- On a hill, transition from a side-stepping position to a downhill position.





## Downhill Technique

Going downhill on cross-country skis is thrilling, but also intimidating. By teaching your athletes a proficient wedge or snowplow they will always know that they have a way to control their speed.

For a beginning skier, the wedge is the primary way of controlling speed on a downhill. The athlete's skis form a "V" shaped wedge with the tips together and the tails apart. The angled position of the athlete's skis function as a brake, slowing their descent. Start without poles until the athlete is comfortable and proficient. As the lower body position changes depending on the purpose for the wedge, the upper body remains the same. Instruct your athletes to keep their hands up and forward, like they are steering the wheel on a bus. This reminder is important because most often where the hands go the body will follow.

### 6. Wedge

#### Wedge Glide to Control Speed

- Have the skier step out of the classic tracks and face downhill.
- Push the heels away from each other and bring the tip of the skis together to form a wedge.
- Look ahead, bend the knees, and keep hands up and forward. (If using poles, keep them pointed behind).
- Roll the knees and ankles slightly in to apply pressure on the inside edges of the skis.
- Slowly slide in a snowplow downhill.

#### Coaching Tips

- Practice changing from a large "V" to a small "V" to change their speed.
- Depending on the athlete's ability, encourage them to change from parallel skis to a wedge. Descriptive words like "pizza slice" and "noodles" may help the athlete visualize the difference between gliding on two flat skis verses snowplowing in a wedge.



## Wedge Stop

- Using a wedge or snowplow to come to a complete stop is a safe way of braking on a downhill. Demonstrate and practice on flat ground first.
- Do the same as instructed in the Wedge Glide.
- Apply more pressure to the insides of the skis to slow their glide to a stop.



## Coaching Tips

- Encourage athletes to keep their hands up, body slightly forward, and knees bent inward to control this technique.

## Wedge Turn

The wedge is also a way for an athlete to change direction on a downhill slope or with a change in terrain of the trail. A turn is made when the downhill ski is weighted, which steers the athlete across the fall line (the direction a ball would roll down the hill). For example, by bending the right knee and applying pressure to the right ski, the athlete's body will respond by turning to the left.

Remind the athlete to keep an upright and forward upper body with their hands out in front.

Descriptive language, like "steering wheel", helps describe their hand position and "steering a bus", helps describe the movement around a turn, like "turning a bus". Leading with the hands will greatly help the athlete control their direction. If an athlete's inside ski is falling behind it is because of a rotation in the hips. Return focus to maintaining a square upper body position, facing downhill.

As with all cross-country techniques, it is about learning one movement and repeating it over and over. When an athlete feels comfortable with turning in both directions, encourage them to link their turns together. Start by turning against the fall line and just before the athlete slows down, weight the other ski to make a turn to the other side against the fall line.



## Drills

### Beginner

- Make a piece of “pie” with their skis on flat terrain.
- Have your athletes practice with their hands on their knees to help with forward pressure, verses falling back.
- When working on a hill teach this skill at the same time as herringbone and side-stepping.
- Ski down the enter length of the hill keeping their skis in a “V” position.
- See how many times they open and close the “V” on the way down the hill.
- Start with skis straight—“noodles”—and change to the wedge—“pizza”.

### Intermediate

- Ski in a wedge with poles held horizontally in front imagining that they need to keep a tray of milk and cookies steady the whole way down the hill. This emphasizes maintaining a forward and stable upper body position.
- Create a turn guide with cones or poles for the athlete to follow when learning to turn with a wedge.

### Advanced

- “Brake Check”—stand half way down the hill and have athletes come to a complete stop using the wedge.
- Set a wide-open slalom course down a hill with cones to challenge your athletes to link turns down a hill.



## 7. Step Turns

When an athlete becomes comfortable with going downhill on cross-country skis and is ready to advance from snowplowing, encourage them to step in order to turn instead of sliding through the turn.

- Practice stepping through a right hand turn and a left hand turn on flat ground first.
- Next, try on a gradual downhill turn. Approach the turn slowly in a snowplow or with more speed with skis straight.
- Keep knees bent and move in small steps around the turn until the trail straightens out.
- Keep the hands up and forward to “steer the bus” around the turn.

Step turns will take more confidence and ski control to perform. Be patient and continue to encourage the athlete to step lightly and quickly to keep their body moving around the turn. Remind them to keep their hands forward. This simple body position reminder is key to keeping their upper body turned in the direction of travel. It also helps them to look forward. Where their hands and eyes go, so will their body. Practice on gradual terrain and one turn at a time. Consider setting up cones on a wide-open trail for your athletes to ski around.



## Additional Skills

### 8. Star Turns

Star turns enable an athlete to change direction on skis. This circular way of turning helps an athlete become accustomed to shifting body weight from ski to ski. This movement is also a good practice tool for manoeuvring the tips and tails of the skis. The objective of a star turn is to rotate by stepping in one direction while keeping the ski tails or ski tips together. The following progression is to change direction to the right, pivoting from the ski tails.

- Stand in a relaxed, balanced position, without poles.
- Lift the tip of the right ski and leave the tail of the ski on the snow.

- Place the ski down farther to the right, creating a “V” shape with the skis.
- Keeping tails in place, lift the tip of the left ski and place it parallel to the right.
- Continue taking small steps until desired direction, or for a full circle.

Afterwards, point out the “star” pattern the athlete’s ski made in the snow. Encourage the athlete to try this movement in the opposite directions and while pivoting from the ski tips. When adding poles make sure that the poling motion follows the leg motion so that the athlete can also work on coordinating equipment with movement.



### Drills

- Start by asking your athletes to rotate around in a circle. Then challenge them to keep either their tips or their tails together.
- Goal is to do a 360-degree star turn. Ask athletes to see how many degrees they can rotate?
- Draw a circle in the snow and challenge your athletes to turn within the circle.





## Skating Technique

### 9. V1

V1 is the basic skate technique and a good place to start when learning how to skate. To learn this new technique, break it down into the upper body and lower body motions. Begin without poles and skis to demonstrate optimal body position in a walking motion, then transition to skis to learn how to push and glide. Your athletes will be familiar with starting a technique without poles and skis after they've learned the basic classic ski progression. Taking away the equipment helps the athlete to focus solely on the movement they need to learn.

Once back on the skis, the "V" formation is used as a verbal cue in skate technique ski position. Be sure to differentiate between a wedge "V", which is upside-down, and a skate "V" which is right side up.

### Lower Body Movements

This back and forth movement will be what your athletes want to try to replicate on skis.

- Start without skis or poles in the athletic stance with knees bent and arms out in front.
- Plant feet shoulder width apart with the toes slightly in and the heels slightly out, to simulate a "V" position of the skis.
- Rock back and forth from right leg to left leg to feel the weight shift.
- Next, rock to the right and take a small diagonal step forward with the left foot.
- Rock to the left and take a small diagonal step forward with the right foot.

### Coaching Tips

- Unlike classic skiing in the tracks, skate skiing uses edging to push off from one ski to the other.
- Practice rolling the ski onto an edge and pushing against the ski.
- Emphasize the importance of bent knees in applying pressure and control to roll and push the ski.
- Similar to classic skiing, proper alignment on the dominant poling side is Nose-Knee-Toes.

## Upper Body Movements

V1 is a combination of the lower body skating movement and an offset double pole poling motion on one side. The movement is asymmetrical because the technique is lead by a dominant poling side. On the right side, for example, the poling and the transfer to the right ski happen at the same time. When pushing to the left side, the athlete only glides on the left ski.

Coordinating upper body with lower body movements is key to coordinating in skating. When combining the two, start learning without poles, then one pole in the poling side hand, and finish using two poles.

- Start in the athletic stance with knees bent, skis in a “V” and poles out in front.
- At the same time, step diagonally forward to the right with the right foot and plant the right pole to the right of the right foot.
- Step over to the left side and glide.
- Step back to the right and plant the poles to push on the right side.
- Repeat the same right to left poling motion.

When the athlete is proficient with this V1 movement, return to skis and repeat.

## Coaching Tips

- Remind your athletes to keep their knees bent to maintain their balance while transferring weight from side to side.



## Drills

### Beginner

- Practice lateral weight shift without skis first.
- Practice lateral weight shift with skis with the goal of gliding on each ski.
- See Marathon Skate below.
- While practicing weight shift, hold hands behind the back to develop balance.
- Ski with bellies far forward to emphasize high and forward hips.

## Intermediate

- Add one ski and let the athlete feel the glide on the snow when they step onto the ski.
- See Marathon Skate below.
- Set up a hopscotch game on the snow. Set the squares in a pattern to mimic a skating movement. Athletes can walk or hop through the hopscotch.
- Play a game on skate skis without poles, like soccer.

## Advanced

- Add one pole, then two.
- Transition your coaching cues from stepping to pushing and gliding.

Marathon skate is an alternative way to teach your athletes the feel of pushing off one ski and gliding on the other.

- Set the left ski on the right-hand track, with left knee bent and ready to glide.
- Place the right ski at an angle away from the track.
- Plant the poles just beyond the boots and outside of the skis.
- At the same time, double pole and roll the right ski to its edge and push.
- Repeat to gain enough speed to practice pushing and gliding.



## 10. V2 and V2 Alternate

If an athlete is proficient at classic skiing and is able to learn the V1 skate technique, consider encourage them to learn V2 and V2 alternate. These new skate techniques will improve their overall ski technique and will keep the sport fun and challenging. For detailed coaching instructions seek out local cross-country ski clubs and coaches.

### V1, Transition to Open Field, Transition to V2



## Ski Games

Ski games serve multiple purposes when learning how to ski and improve technique.

### Ski games:

- Teach fundamental ski skills.
- Teach cooperation within a group.
- Help improve fitness.
- Are creative and imaginative.
- Can be modified to incorporate all ski abilities.
- Involve all members of the group.
- Teach sportsmanship.
- And most importantly, they are fun!

Games complement ski technique lessons and provide a different environment for an athlete to learn fundamental skills. Games are often played without poles, which encourage athletes to work on balance and comfort on snow. Games also require varying speeds on snow, stimulating the athlete to move at a different pace than in a technique lesson. Game objectives like tossing a ball or following leader can help develop body coordination and motivate an athlete to learn how to manoeuvre on skis. Start on flat, unobstructed terrain. When your athletes are ready to advance their skills incorporate an uphill or down hill, or more speed on the flats.



Ski technique is often taught on an individual basis and the focus is on self-improvement. Ski games balance out a ski lesson, and they bring everyone back together. Of course, make modifications based on the ability level of your group. You can split the larger group into smaller groups in order to match like skills, and to maximize fun and play. Ski games are also a chance to actively incorporate assistants, parents and even skiers who are weary of playing. They can be given scoring or cheering positions that help support the games being played.

### Coaching Tips

- Play games for short periods of time to keep interest, energy and enthusiasm high. Know when to move on to a new game or back to the ski lesson. Know when to take a water or rest break.
- Depending on ability level, use non-contact games like Red Light, Green Light instead of Tag, until your athletes are more proficient on skis.
- Incorporate ski games into a ski lesson with purpose and match it with the skill of the day.
- Play without poles. However, if you do use poles remind the athletes to keep the pole tips down.
- “Everyone Wins”—encourage sportsmanship amongst the group so that all involved can share the success.
- Prepare for games before the lesson so that the games can be seamlessly integrated into the lesson without extra waiting and fiddling. Have all extra props or the game area prepared beforehand.
- Communicate with your group when you will be playing games and use as a reward. As your group becomes more familiar with skiing later in the winter, give them the option of which games they would like to play so that they can be involved in the creating a positive ski lesson.
- Use a bell, whistle, music or fun sound to begin and end a game.
- When separating into groups or teams pick fun names, movie characters, favorite foods, favorite colors, for example.
- Games can be done in one area or can be used to help the group progress along the trail or to reach a certain destination.



## Games and Drills

### 1. Sharks and Minnows

Line the skiers “minnows” up on the “beach” and choose one skier to be the “shark”. The objective is for the “minnows” to ski across to safety on the other side. The “shark” tags as many as possible to create more “sharks.” Invite the “shark” to give a starting call or phrase to entice the “minnows” to try to cross. Proceed until only one “minnow” remains.

#### Skills

Thinking while moving on skis, overall balance, upper and lower body coordination, ski speed, and step turning.

#### Coaching Tips

- Use a designated area and denote the safety zones with brightly colored cones, markers or rope.
- Play along with your athletes encouraging them to enjoy the chase and challenging or moving from one end to the other.
- Monitor your athletes and make sure they are enjoying the challenging of speed and tagging. Switch to another game if some are getting frustrated with the speed and contact.

### 2. Red Light, Green Light

Arrange skiers in a line. Pick one skier to be the “stop light” and have them stand 10 paces in front of the group (or choose an easy distance for skiers to ski). When the “stop light” skier says “go”, he/she raise their arms above their head and the group of skiers skis towards the “stop light”. When the “stop light” skier says “stop”, he/she stands with their arms stretched out to the side and the group of skiers must freeze in position. The “stop light” skier randomly alternates between stop and go, varying the time for each. The first skier to pass the “stop light” skier wins. Or, the skier who skis the farthest at the end of the game wins.

#### Skills

Skiers work on listening skills, learn to listen to each other and the coach, and ability to ski for a certain length of time.

#### Coaching Tips

- An athlete who is unwilling to play can be the “Stop Light” and stand stationary during this game.
- Make sure his or her voice is loud enough for everyone to hear.
- Have them wave colored flags to enhance the visual signal.

### 3. Treasure Hunt

Scatter bright objects, toys or “treasures” in a designated area. Use the treasures as a reward, a snack break for example, or a message to do a certain trick or say a rhyme. Arrange the skiers in a start line, give them a “Go” signal, and let them try to find all of the hidden treasures

#### Skills

On snow body coordination, the “hunt” for hidden things is mentally stimulating as can be the treasures.

#### Coaching Tips

- Designate a specific area so that skiers do not wander too far away.

### 4. “Circle” Relay

Skiers ski to a pole, ski around it once and then return to their group. Skiing in a circle is just one skill example. Relays can be altered to emphasize any skill you would like. A relay format changes the learning environment and is another stimulus to learning a new skill. Relay challenges also demonstrate to the athlete the purpose, like being able to turn in a circle, of a skill in everyday skiing.

#### Skills

All ski skills, ski speed, sportsmanship.

#### Coaching Tips

Be creative and use this activity as a teaching tool, or acknowledge when your athletes just want to have fun and let them choose the relay task.

### 5. Obstacle Course

Create an obstacle course depending on certain skills the skiers are working on. The length and complexity of the course must be relative to the ski ability of the group for it to remain fun, challenging and at the end rewarding for all. Use different markers, like poles, cones, benches, trail signs or hula-hoops, for skiers to tag, ski around, and ski through or under. Start on flat, unobstructed terrain.

#### Skills

All techniques and sportsmanship.

#### Coaching Tips

- Use a designated area.
- Keep the course simple and the direction understandable.
- Use to practice skills like stopping, turning, tucking, and sidestepping.
- Make a human course. Line the skiers up like poles in a slalom course with enough room to ski in between them. The first skier in line can ski around the “poles” and stop at the end to form another “pole”. Then the second skier goes, so on and so forth.
- Encourage the group to cheer on their teammates, when they are successful and when they need support to make it through a difficult maneuver.
- Incorporate different terrain if the group’s ability warrants the challenge, to practice herringbone, sidestepping and snowplow.

## 6. “What’s Around the Corner?”

Set up two or three stations along the trail, field or designated ski area. Each station represents a surprise task that the athlete must complete before moving on to the next. Tasks can range from simple to challenging depending on the energy level, enthusiasm and skill of the group. Tasks can reflect ski skills—such as “do one star turn”—or they can reinforce other experiences—such as “name one animal you might see in the wintertime”.

### Skills

All ski techniques necessary to travel from one point to another, comprehension skills, step turns, stopping, feel for ski trail.

### Coaching Tips

- Use this game to stay in one area, or to help progress along a new trail.
- You can help control the distance/time that the athlete skis between each station. This might inspire them to keep moving until they get to the next station, as well as encourage taking a break before they move on.
- Set this up beforehand, especially if it requires skiing a distance away from the starting point.
- If you are taking a new trail or skiing a new area, clearly communicate when this game is over so that your athletes know when to return to the starting point and have a sense of the length of the activity.
- Combine verbal, visual and kinaesthetic tasks so that this game can appeal to different learning styles.

## 7. Follow the Leader

As your group becomes more cohesive and trusting, offer a “Follow the Leader” section in your lesson. Let your athletes lead, choosing which direction, which technique or task to accomplish. This can either be done moving and on skis, or without skis and in a circle like “Simon Says”.

### Skills

All ski techniques, especially the ones that your athletes like and know they can lead, communication skills within the group.

### Coaching Tips

- Have your assistants ready to help with communication of skills.
- Set a time limit or distance goal so that all involved have a sense of control the duration of this activity.
- Give encouragement when all of the athletes are able to follow along.
  - Switch leaders to give different athletes a feel for the different roles.
- This might be a proactive way to lead a warm-up or cool-down session once the group is knowledgeable of the stretches and routine.

## 8. Biathlon Bean Bag Relay

Set up three buckets with three beanbags or tennis balls a comfortable tossing distance from the bucket. Divide the group in half or thirds. The objective is for the first skiers to ski up to beanbags or tennis balls and get as many in the bucket as possible (or at least one, change rule as needed) and ski back to their teams for the second skier to go.

### Skills

Hand and eye coordination, combination skills skiing and tossing, and fine focusing on getting the beanbag into the bucket.

### Coaching Tips

- Assistants can help re-set all of the beanbags or tennis balls at the throwing point, or “firing line” to use biathlon terminology.
- Describe the Biathlon to your athletes. Biathlon nordic skiing and shooting, is another form of nordic skiing. Skiers ski with rifles on their back and shoot .22 long rifles at five black targets in a designated shooting range. The biathlete who hits the most targets and skis the fastest from start to finish wins.
- Wide mouth buckets or overturned pylons work well.

## 9. Duck, Duck, Goose

Skiers form a circle, face the center and stand arms width apart. One skier is chosen to be “it” steps outside the circle. The skier skis around the circle tapping or pointing to each skier saying, “Duck, duck, duck...” until they call someone “Goose”. The “Goose” is now it and chases the other skier around the circle. The other skier is safe if they make it back to the open spot in the circle. If the “Goose” catches the skier, then they are “it” again.

### Skills

Balance, coordination, listening skills and step turning on skis.

### Coaching Tips

- Use a wide-open space without any obstructions.
- Combine a group of athletes have similar ski abilities and interests.

## 10. Hares and Hounds

Split the group into Hares and Hounds (Bunnies and Foxes, Mice and Magpies or pick two animals they might see along the trail). The Hounds will be chasing the Hares. The Hares will be wearing brightly colored scarves or ribbons; half is tucked into their jacket or pant pocket, the other half is dangling free. The Hounds “catch” the Hares when they grab their scarf. The Hound with the most scarves at the end of the game wins. Switch Hares and Hounds and play again.

### Skills

Upper and lower body coordination, use skis as a way to get to a certain point, and work on balance and changing direction.

### Coaching Tips

- Designate a specific play area.
- Brightly colored scarves, fabric strips, or fluorescent surveyors tape make great props for games.



# Planning

## Preparation for an Effective Ski Lesson

Below is a checklist for important points to keep in mind for an effective lesson. Preparation is key, especially to be able to adapt and adjust accordingly for a safe training environment, properly functioning equipment and maintaining an understanding of athletes' abilities.

### Before the Lesson

- Be prepared: know your venue and trail system well.
- Be prepared: know your athletes' abilities and goals.
- Have a solid, but flexible lesson relative to the athletes' abilities and goals.
- If using kick wax, determine the optimal wax for the day's conditions.
- Clearly communicate to volunteers and support staff their roles and responsibilities in accordance to your training plan.
- When possible, have all equipment and stations prepared before the athletes arrive.
- Introduce and acknowledge coaches, support staff and athletes.
- Review intended program with everyone. Keep athletes informed of changes in schedule or activities.
- Alter the plan according to weather, the facility in order to accommodate the needs of the athletes.
- Check that athlete equipment and attire are complete and appropriate for the day's training technique and weather.

### During the Lesson

- When speaking to the athletes, arrange them in a semi-circle in front of you and make eye contact.
- Speak simply and clearly. Be concise with your skill explanation. Do not give long demonstrations and explanations.
- Encourage the athletes to imitate the technique of the coach.
- Keep drills and activities appropriate to the level of your athletes.
- Keep everyone moving.



- Ask the athletes questions to make sure that everyone knows what is expected of them.
- Keep the “fun” in fundamentals.
- Change activities before the athletes become bored and lose interest.
- Devote the end of the practice to a fun, group activity that can incorporate challenge and fun always giving them something to look forward to at the end of practice.
- Take necessary rest and water breaks.
- Watch for fatigue and listen to athletes who say they are cold.
- Watch for warning signs of frostbite (change in skin tone of the cheeks, nose and ear tips).

### **After the Lesson**

- Summarize the session and announce arrangements for next session.
  - Acknowledge progress made and challenges that the athletes faced.
- Compile a progress report or evaluation of each athlete to inform the next lesson plan.

The previously mentioned and following guidelines are recommendations for how to instruct a cross-country ski lesson. However, it is up to the coach to adapt the guidelines to fit their coaching style, the learning style of the participants, and the individual needs and abilities of the group.<sup>1</sup> Every nordic center is different, and requires specific adaptations and staff awareness in order for ski lessons for individuals with intellectual and developmental disabilities to be run effectively, smoothly and safely.

### **Basic Lesson Plan**

A cross-country ski lesson is a combination of warming up and cooling down, skill instruction, games and fitness challenges. The diversity of a lesson helps athletes to learn skills in a variety of different ways, inspired by the maxim—learning by doing. Athletes benefit from developing abilities and learning new skills through a variety of modes like exercises and games in addition to skiing. A dynamic plan also keeps the

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<sup>1</sup> NENSA

athletes active, engaged and curious about what happens next. Be flexible and creative, but consider the following set up as your basic guideline:

Warm-up	10-15 min
Skill instruction or review	15-20 min
Time to practice skill	10-15 min
Water/restroom break	
Ski Games/fitness component	10-15min
Cool down	10 min

A typical lesson should last between 45 and 90 minutes depending on the ability, fitness and enthusiasm level of your group.

### Typical On-Snow Practices – Three Sample Lessons

Sample 1	Sample 2	Sample 3
Teach athletes warm-up and stretching routines.	Warm-up, stretch and practice plan overview.	Warm-up, stretch and practice plan overview.
Introduce new on-snow activities.	Review previously taught techniques.	Review previously taught techniques.
Practice and drill technique.	Introduce new skiing technique.	Introduce new skiing technique.
Play an active game.	Ski a longer loop incorporating the new technique when appropriate.	Practice the new technique and perform technique drills.
Ski a short loop.	Cool-down/Review practice/Remarks.	Have relay races or play a game.
Cool-down/Review practice/Remarks.		Ski a short loop.
		Cool-down/Review practice/Remarks.

# Rules & Regulations

## Teaching Cross-country Skiing Rules

There are many things you can do to help novice racers succeed during their first few competitions. The best time to teach the rules of cross-country skiing is during practice. As coach, it is your responsibility to know and understand the rules of the sport. It is equally important to teach your athletes the rules that enable them to compete in cross-country skiing. A coach must maintain current copies of the [Official Special Olympics Sports Rules](#) and the [International Ski Federation Rules \(FIS\)](#).

## Cross-country Ski Signs and Trail Markers

Trails may be marked with numbers, symbols, letters and color-coded signs. Know and understand your local trail markings. Trails are categorized as:

Easier: Green Circle ●

More Difficult: Blue Square ■

Most Difficult: Black Diamond ◆

## Caution or Warning Signs

Warning signs should be posted on the trail board, at the trailhead and as required, on the trail. These signs have both permanent and temporary use. Examples of this could be steep downhill, sharp turns, or low-snow coverage on the trail up ahead.

## Sportsmanship

Good sportsmanship is both the coaches' and athletes' commitment to fair play, ethical behavior and integrity. In perception and practice, sportsmanship is defined as those qualities, which are characterized by generosity and genuine concern for others. Below we highlight a few focus points and ideas on how to teach and coach sportsmanship to your athletes.

## Fair Play at All Times

- Always comply with the rules.
- Demonstrate sportsmanship and fair play at all times.
- Respect the decision of the officials at all times.



### **Expectations of Coaches**

- Always set a good example for others to follow.
- Instruct participants in proper sportsmanship.
- Respect judgment of officials.
- Treat everyone with respect.
- Develop and enforce sportsmanship standards.
- Commend the athletes when they demonstrate good sportsmanship.

### **Expectations of Athletes**

- Treat everyone with respect.
- Put forth maximum effort during each race.
- Practice the skills with the same intensity, as you would perform them in competition.
- Do your best to finish each race.
- Always encourage teammates.
- Do not retaliate (verbally or physically) at any time.

### **Official Special Olympics Winter Sports Rules for Cross-country Skiing**

The [Official Special Olympics Cross-country Skiing Competition Rules](#) should be consulted for any rules or regulations enquiries.

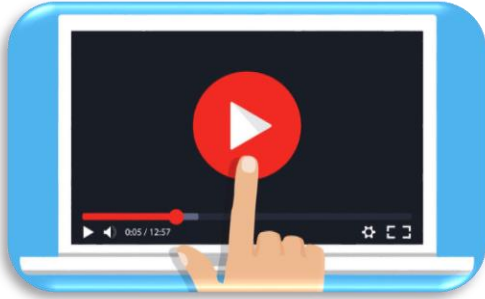
### **Divisioning**

It is important that the rules and procedures of divisioning is clearly understood by all coaches and athletes before attending competitions. Understanding the divisioning process will have a direct impact on your athlete's performance. The fundamental difference between Special Olympics competitions and those of other sports organizations is that athletes of all ability levels are encouraged to participate, and every athlete is recognized for his/her performance. Competitions are structured so that athletes compete with other athletes of similar ability in equitable divisions. Historically, Special Olympics has suggested that all divisions be created so that the variance between the fastest and slowest times within that division does not differ by more than 10 percent. This 10 percent statement is not a rule but should be used as a guideline for establishing equitable divisions when the number of athletes competing is appropriate.

## How Divisioning is Implemented

An athlete's ability is the primary factor in divisioning Special Olympics competitions. For cross-country skiing, divisioning works best when coaches submit accurate preliminary ski times for a specified distance.

This ensures athletes are placed into the proper division.



Determining appropriate divisions:

- Gender
- Age
- Ability

*[Click here to watch a video on Special Olympics Divisioning](#)*

## Protest Procedures

Protest procedures are governed by the rules of competition and may change from competition to competition. Only rules violations can be protested. Judgment calls made by officials or divisioning decisions cannot be protested. The protest must be written, cite a specific violation from the rules and state why the coach feels the rule was not followed.

Check with the competition management team or jury prior to a competition to learn the protest procedures for that competition. The protest period is time sensitive. Coaches should be aware of the impact on their athletes and competition time schedule.

The role of the competition management team or jury is to enforce the rules. As a coach, your duty to your athletes and team is to protest any action or events while your athletes are competing that you think violated the official Cross-country Skiing Rules. It is extremely important that you do not make protests only because you and your athlete did not get your desired outcome of an event. Filing a protest is a serious matter that may impact a competition.

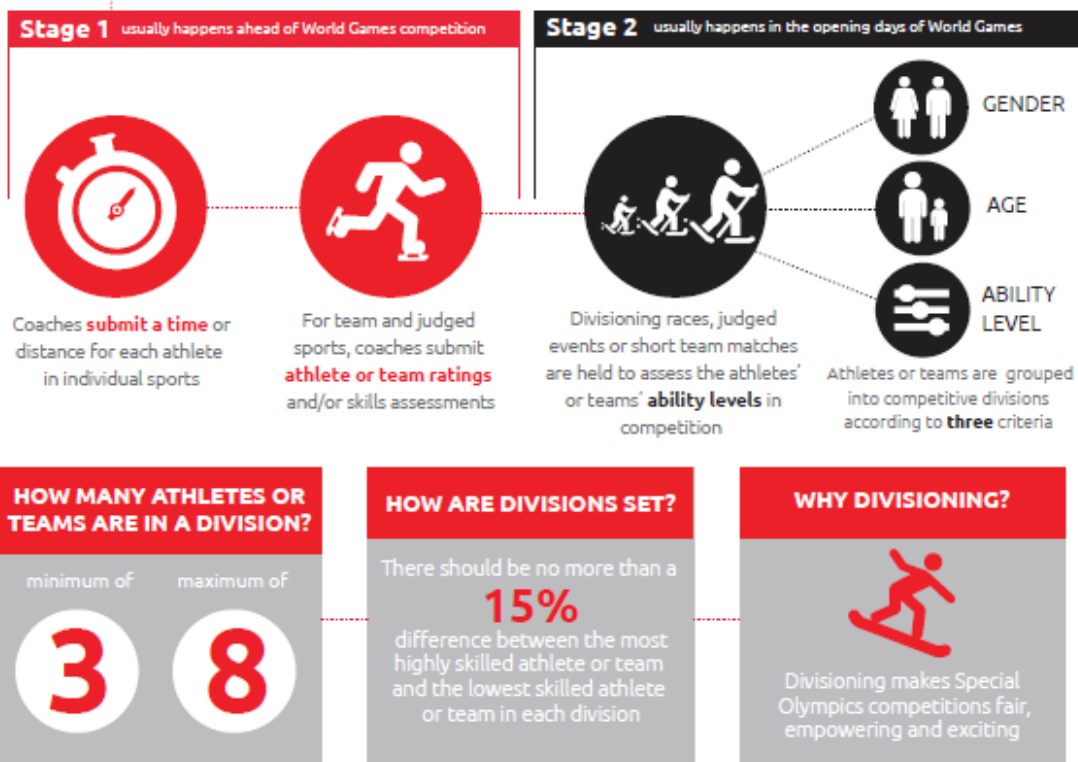


## Special Olympics **Divisioning**

Like all athletes, Special Olympics athletes love **the thrill of competition** and pushing their limits to achieve a new personal best.



Special Olympics uses a unique system called **'divisioning'** to give athletes of all abilities the chance for exciting competition.



An evenly matched competition makes athletes and teams try harder – and push farther. It's about athletes rising to a challenge – and giving it their all!  
**All they need to do ... is THEIR very best.**



See our video at [specialolympics.org/divisioning](https://specialolympics.org/divisioning)

# Glossary of Terms

Term	Definition
<b>Athletic Stance</b>	A dynamic position with knees bent, arms out that prepares the body for athletic movement.
<b>Classical Technique</b>	Traditional cross-country skiing technique, also called diagonal striding.
<b>Cool-down</b>	Time period at the end of a training session or competition that includes easy skiing or jogging, and stretching.
<b>Diagonal Stride</b>	Cross-country skiing technique in which opposite arm and leg move together as in walking. This is also called classical skiing.
<b>Double Pole</b>	Planting of both poles together, slightly ahead of the feet and initiating forward gliding by applying downward force on both poles simultaneously. The upper body follows the arms by bending at the waist. One variation is the Kick Double Pole.
<b>Downhill Ski</b>	The ski closest to the bottom of the slope while standing across the fall line.
<b>Edging</b>	Rotating the ski onto its edge causing it to dig into the snow.
<b>Fall Line</b>	An imaginary line down the slope of a hill. The route a ball would follow if allowed to roll freely down a slope.
<b>Glide</b>	The result of ski technique and effort to move the ski across the snow.
<b>Herringbone</b>	A technique for stepping uphill; skis remain in a "V" position.
<b>Inside Ski</b>	The ski closest to the inside of a turn.
<b>Inward Star Turn</b>	Step turn pivoting on the tips of the skis.
<b>Kick</b>	The movement necessary to set the wax on the base of the ski in order to push forward onto the other ski to glide.
<b>Kick Double Pole</b>	A maneuver in the tracks, which combines a double pole with a push off from one leg.
<b>Marathon Skate</b>	A maneuver, which combines a double pole with a push from one diverging ski.
<b>Outward Star Turn</b>	Step turn pivoting on the tails of the skis.
<b>Side Step</b>	A method of climbing the slope by keeping the skis parallel across the fall line and using the edges.
<b>Skating</b>	Skiing technique in which the skis form a V-shape and the skier glides on one ski at a time. This is also called freestyle.
<b>Track</b>	The ability of the ski to go straight.



<b>Tracking</b>	When a faster skier comes upon a slower skier and must get out of the classic tracks in order to pass the fellow skier.
<b>Tracks</b>	Grooves in the snow that skis are placed in while skiing.
<b>Uphill Ski</b>	The ski closest to the top of the slope while standing across the fall line.
<b>V1</b>	A skating technique, which combines double pole and skating. The skier double poles once for every two skating steps. The timing of the arm and leg motion is synchronized.
<b>V2</b>	A skating technique, which combines double pole and skating. The skier double poles with each skating step. The timing between the arms and leg movements is staggered.
<b>V2 Alternate</b>	A skating technique similar to V1. The double pole occurs once every two steps but the poling is not synchronized with the skating motions.
<b>Wedge</b>	A downhill maneuver to control speed, turn or stop. Skis are angled inward (tips together) and edged into the snow. Also referred to as a snowplow.
<b>Weight Transfer</b>	Shifting the body weight from one ski to the other.