



**CANADIAN SKI COACHES FEDERATION
FÉDÉRATION DES ENTRAÎNEURS DE SKI DU CANADA**

Entry Level Technical Articles

*The Canadian Ski Coaches Federation, with its partners,
educates coaches to lead and develop excellence in ski racing.*



**National
Coaching
Certification
Program**



Introduction to Entry Level Coaching

The entry level coach plays a pivotal role in skill development of entry level participants. Youngsters are involved in the sport of alpine skiing/ski racing for a variety of reasons. The coach at this level must develop a good comprehension of why participants are involved in skiing and strive to ensure that their needs are being tended to, regardless of their reason for participating in the activities. The entry level coach must strive to plan and conduct a loosely structured program that brings focus to participation, variety and **FUN**.

It is important that the coach understands that **FUN**-damental skiing and mental skills training should be emphasized. The **initiation** and **acquisition** stages of motor and mental skills development depends on the coach's ability to provide a program that focuses on the acquisition of skills in technical, tactical, physical, psychological and social domains. Participants' abilities in these areas can be developed through a program that offers directed and undirected free skiing, technical skiing with aids, tactical drills, event specific training and limited competition. Above all else, the program should promote the "love of the sport" and skill acquisition.

Participants must be exposed to knowledgeable coaches who can facilitate:

- motor/mental skill development
- positive self concept
- help reinforce basic values and ethics

The coach must act as a positive role model and strive to develop their personal leadership qualities, problem solving abilities and interaction skills.

These articles are designed to help the entry level coach meet the requirements of participants at this level whether they are participating in a ski school and/or club programs.

Effective coaching at this level means providing programs that offer variety but more importantly, recognize the individuality of the participants. An understanding of the intrinsic value of sport and providing a safe learning environment will help entry level participants achieve success at their own rate.

***ENSURE IT IS SAFE
KEEP IT SIMPLE
MAKE IT FUN***

1 - The Canadian Approach to Ski Racing

Introduction

The Entry Level coach must be able to:

- introduce entry level skiers to fundamental skiing skills
 - **initiation** to basic form and movement
- help participants learn to model general form and movement
 - **acquisition** of gross motor movement patterning
- help young skiers learn to adapt and modify gross motor movements and begin to integrate fine motor patterns
 - **consolidation** of form and movement patterning

Young skiers learn fundamental skiing skills by:

- active engagement in activities in
- supervised and unsupervised environments

Therefore, the Entry Level coach must:

- demonstrate good skiing skills
 - **show** what to do and **how** to do it
- allow time for young skiers to perform the tasks
 - time to **do** it

Understanding of free skiing and ski race training at the fundamental level is important.

Skill Development Tools and Activities

The Canadian approach offers tools and activities that the coach can use to help participants:

- develop a solid base of technical abilities
 - **technical tools**
- develop a good perception of methods that can be used to deal with skiing variables
 - **tactical approach**
- understand basic physical principles as a foundation for ski technique
 - **skiing biomechanics**

Technical Tools

Children learn from what they “see” and “do” rather from what is “said”. The challenge to the Entry Level coach is to:

- provide good demonstrations of skiing skills for visual impact
 - **initiation stage**
- promote volume skiing to allow the participants time to model form and movement
 - **acquisition stage**

To help participants develop skiing skills, coaches should use the technical tools. They are:

- basic skiing skills
 - balance
 - stance
 - timing
 - coordination
 - steering
 - edging
 - pressuring (loading and unloading the skis)

- planes of balance
 - forward/backward balance
 - vertical balance
 - lateral balance
 - rotational balance

Basic Skiing Skills

Stance – adopt a position on skis that promotes stability yet allows **mobility and/or agility**.

Entry level participants should be encouraged to adapt and modify their stance to suit:

- changing terrain
- varying snow conditions
- individual physical make-up

Balance – to attempt to maintain equilibrium in all planes

To help develop balance, entry level skiers should be encouraged to test:

- agility
- recovery skills

Timing – selection of the right moment to begin an action

Basic timing skills at the entry level should focus on:

- Pole plant

Coordination – to combine the movement of different body parts into a common action

Coordination of different body segments helps young skiers with:

- basic arm movements for pole plant
- fundamental separation skills
- directing the skis with steering effort from the feet and legs

Edging – the ability to use the skis as a cutting tool

Basic edging skills require the ability to:

- roll or bank the skis on to the sidewall

- increase or decrease edge angle as speed, conditions and turn type dictate

Steering – to guide the skis in a desired direction

Basic steering skills require the ability to:

- direct and redirect the feet and legs, simultaneously or independently

Pressuring (loading and unloading the skis) – the result of increasing edge angle and/or steering effort to bring the skis to full flex (**loading**) then, decreasing the edge angle and/or steering effort to release the skis (**unloading or release**)

Determining factors for pressuring the ski at the entry level include:

- edging and steering skills
- inclination and angulation skills
- growth and development factors

Planes of Balance

The planes of balance are tools designed to help coaches understand:

- how entry level skiers maintain stability
- why some young skiers have better stability skills than others
- how growth and development factors can affect a young skier's progress
- the relationship between skill development in skiing and involvement in other sports

Forward/Backward Balance – to keep all the body joints that are available, in order of largest to smallest, in line on the vertical axis over the platform (**alignment**).

Factors affecting forward/backward balance in entry level skiers are:

- equipment- boot stiffness, ramp angle, forward lean
- core strength

Vertical Balance – to adjust up and down movements on the vertical axis, while maintaining alignment.

Factors affecting vertical balance in young skiers are:

- range of movement through the body joints
- equipment – boot stiffness, forward lean
- ability to maintain alignment

Lateral Balance – to balance in a side to side manner while in angular motion.

Factor affecting lateral balance in entry level skiers are:

- inclination/separation skills
- edging skills
- core strength

Rotational Balance – to control and adjust rotary movements of body segments in relation to the vertical axis.

Factors affecting rotational balance at the entry level are:

- core strength
- arm strength
- upper body discipline
- ability to steer the feet and legs

Tactical Skiing

Entry level skiers are generally too young to understand abstract concepts of tactics and strategies.

Coaches use the concept of tactics to help explain:

- when and where to do it (**timing**)

The tactical approach refers to:

- line
 - where the skis are cutting in relation to the fall line
- turn shape
 - whether the skis are carving or sliding in the turn
- type of turn
 - how speed is managed on certain terrain
 - fall line to full turn type
- speed management
 - controlling, maintaining or generating ski speed

Phases of the Turn

Coaches can help young skiers understand the concept of tactics by using the **phases of the turn** as a tool for improving skill performance. The tactical approach to the three phases of the turn will help the young skiers understand:

- when and where to start the turn
- when and where to finish the turn
- what to do in the middle of the turn
- how to do it

It will also help entry level skiers become more familiar with the following terms:

- Line
- Turn shape
- Edging
- Loading
- Unloading or release
- Ski speed
- Gliding

- Linking
- Alignment

Coaches should not become too rigid with their interpretation of the phases of the turn and the tactical approach. This is because:

- growth and development factors will cause limitations to most young skiers' progress
- modifications to technique and tactics should be expected at the fundamental level
- all movements in the three phases of the turn are blended to promote fluidity in skiing

The Three Phases

- Phase 1 - Unloading or release
- Phase 2 - Edging
- Phase 3 – Loading

Phase 1 – Unloading or Release

In phase 1, entry level skiers should be encouraged to:

- release the edges and/or unload the skis
- move the upper body over or ahead of the feet (alignment)
- set the edges for the new turn (inclination)

Phase 2 – Edging

In phase 2, entry level skiers should be encouraged to:

- increase edging with the feet and legs (steering)
- continue moving the upper body forward and inside the arc (inclination)
- maintain alignment

Phase 3 – Loading

In phase 3, entry level skiers should be encouraged to:

- increase edging with inclination
- maintain the weight over the outside ski
- try to use separation and angulation skills to manage loading
- maintain alignment

Skiing Biomechanics

Alpine skiing and racing force skiers to manage heavy loads on the muscles and the skeletal system. Skiers must be able to:

- maintain alignment to manage external forces
- manage forces that act to pull a skier outwardly (centrifugal force)
- manage forces that act to pull a skiers' feet inward (centripetal force)
- work with gravity
- manage loading

- manage loading created by the skier's interaction with equipment and the skiing environment

Coaches must understand basic biomechanical principles in order to understand:

- why young skiers ski in a particular way
- what factors influence young skiers the most

The important biomechanics principles in skiing are:

- stability with mobility
- force
- velocity
- impulse
- direction
- angular motion
- angular momentum

Stability with Mobility - Entry level skier should be encouraged to test their stability skills by:

- skiing at a variety of speeds
- skiing with a variety of turn shapes
- skiing on varied terrain and snow conditions

Force - The ability of young skiers to produce force depends on:

- alignment of all the body joints
- equipment
- muscular effort that they can produce
- muscle groups that are recruited

Velocity - Factors that affect an entry level skier's ability to produce and carry speed are:

- skiers mass
- ski tuning
- type of skis
- timing of applied force
- amount of force
- direction of the applied force

Impulse - Impulse is related to the young skier's ability to:

- apply a force over the shortest time
- apply a force at the right time
- apply a force to a well edged ski

Direction - Factors that will affect a young skier's direction are:

- timing of the applied force
- line
- speed
- ability to push from a stable platform
- where the force is applied

Angular Motion - An entry level skier's ability to produce angular motion will depend on:

- angulation skills
- keeping the upper body over the feet (alignment)
- controlling rotary movements of the large body parts

Angular Momentum - Angular momentum is rotational speed started by an action (angular motion). As a priority, entry level skiers must be taught:

- correct pole plant at every turn
- maintenance of ski contact with the snow
- control of upper body rotation
- arm discipline

2 - Skill Development

Introduction

Learning skiing skills in the “fundamental” phase happens primarily through **free skiing**, where the skiers:

- learn to match terrain with type of turn (short, medium and long turns)
- ski on varied terrain and snow conditions (agility, adaptability)
- engage in drills, games, obstacle courses and terrain gardens (skill training)
- participate in drills and courses in gates(race training)
- compete in a group environment (competition)

Coaches at the entry level can help young skiers develop their skiing skills by:

- knowing the stages of skill development
- knowing the factors that affect performance
- understanding the skill analysis process
- understanding how young skiers’ learn

Stages of Skill Development

The stages of skill development are:

- initiation
- acquisition
- consolidation
- refinement
- creative variation
- improvisation
- composing

Initiation - the skier understands the general movements patterns required to complete the skill.

Acquisition – the skier can perform basic movement patterns. Growth and development factors can be an influence here.

Consolidation – the skier can adjust and modify elements of the movement patterns and form.

Refinement – the skier can improve and perfect movement patterns and form.

Creative variation – the skier can add versatility and diversity to the movement patterns and form.

Improvisation – the skier can invent novel movements and personalize the form.

Composing – inventiveness and personal style becomes the model.

Performance Factors

Factors that affect skiing performance and skill development are:

- environment
- equipment
- physical
- psychological
- tactical
- technical

Environment

Environment factors – refers to variables in the physical surroundings that are outside the skier’s control. Variables include:

- snow conditions
- terrain
- weather – visibility, altitude, cold, blizzards, rain, fog

Equipment

Equipment factors – refers to equipment that can be modified if necessary.

Equipment modifications need to be completed (where possible) in order to:

- allow the skier maximum possibility to control their performance.
- eliminate outside influences that may contribute to poor performance.

Equipment that fits into this category includes:

- ski boots – proper fit
- skis – length, tuning, type of ski
- clothing, goggles, helmets, gloves, mitts – proper fit
- poles – proper size

Physical

Physical factors – refers to growth and development related issues that may limit a young skier’s motor abilities: These include:

- experiencing a growth spurt
- being fatigued
- recovering from an injury

Growth and development factors can influence a skier’s:

- strength
- flexibility
- balance
- agility
- coordination
- nutrition, hydration

Psychological

Psychological factors – refers to growth and development factors that influence a young skier’s mental processes and abilities. Factors include:

- emotional control
- attention control
- self esteem
- self confidence
- fear

Tactical

Tactical factors – refers to factors that affect what the skier does on-snow in certain situations. These include:

- choice of line down the hill
- turn shape
- type of turn
- dealing with environmental factors

Technical

Technical factors – refers to factors that limit the progression of on-snow motor movements and form such as:

- basic skiing skills
- planes of balance
- skiing biomechanics

Skill Analysis

Entry Level coaches should be familiar with the following steps when watching a skier for the purposes of detecting and correcting skiing errors.

- **Observation** – what to observe and where to observe from
- **Assessment** – recognizing and determining the difference (gap) between the actual performance and the performance that is desired
- **Diagnosis** – determining the cause of a performance that is below the desired level
- **Intervention** – providing clear direction to help improve the performance towards the desired level

Observation - looking at the skier’s performance and being able to see all the key performance elements before making any judgement.

- Observe more than one repetition.
- Chose a variety of viewing points (angles) to watch the performance from.
- Look at global movements – how is the whole body moving?
- Watch the skis.
- What do the skis do in the snow (indicators)?
- Look for indicators of desired performance (cutting versus sliding).

Assessment – recognizing the difference between the performance that you see and the performance that you expect to see.

- Age factors may be important to note

- The general skill level of the skier is important
- Growth and development issues are important
- Other factors that might limit performance should be considered

Diagnosis – identifying what is causing a lesser performance:

- recognizing the difference between what is causing the problem vs. what effect the problem is causing
- eliminating factors outside the skier's control
- eliminating symptoms or effects

Intervention – providing direction that will fix the problem:

- Provide a remedy that addressed the problem
- Provide timely feedback
- Direct the feedback at the cause of the problem as well as the effect that the problem is causing
- Follow up on the feedback

Styles and Methods

One of the many tasks that an Entry Level coach needs to understand is the relationship between learning styles and coaching methods. In order for skill acquisition to occur, a coach's method of instruction and feedback must match the children's style of learning.

Different types of learning styles are:

- auditory – by listening
- visual – by watching
- kinaesthetic – by moving

Auditory - the skier responds to a verbal description of the task. Coaches who deliver information verbally have to:

- Be task specific
- provide clear and concise explanations
- ask for clarification from the skier

Visual - the skier responds to a demonstration of the task. Coaches who provide visual demonstrations have to:

- Ensure the performance is done well
- Make sure the skier sees the demo from a variety of view points
- Repeat the demonstration for clarity

Kinaesthetic – the skier responds to doing the task. Coaches working with sensory skiers have to:

- Allow time on task
- Feedback has to relate to physical sensations

Different types of coaching methods include:

- direct instruction
- task teaching
- guided discovery

Direct instruction – refers to verbal explanations and feedback. Coaches using direct instruction methods should:

- ensure explanations are brief and to the point
- ensure feedback is task specific
- ensure oral instructions are understood

Task teaching – refers to the use of drills and exercises that emphasize specific skills. Skills are demonstrated to give visual impact. Coaches using task teaching methods should:

- provide a good demonstration
- supplement the demonstration with verbal instruction

Guided discovery – refers to repetitions of the task to allow sensory discovery to take place. Coaches using guided discovery methods should:

- allow time for skiers to practice the task
- know when to intervene
- supplement with verbal instruction and / or task teaching

Conclusion

An effective coach is the one who is capable of:

- providing a **safe learning environment**
- ensuring children are **actively engaged** in skiing activities
- providing **timely feedback** with the appropriate **coaching method**
- **following up** on the feedback

3 - Basic Ski Tuning

Tuning Tools

Entry level skiers do not need World Cup ski tuning technique, but coaches at this level should be aware of the role that tuned skis can play in skill development.

It is important for all coaches to be familiar with:

- what materials are used in contemporary ski construction
- how children's skis are constructed
- how skis for children differ from skis intended for adults

Tools for Ski Tuning

Like any craftsman, using the proper tools will get a quality job done. Ski tuning is no different. Use the proper ski tuning tools.

Tools for ski tuning:

- Ski vices
- Flat block
- Ski brake retainers or sturdy elastic bands
- Fiber-tex pads
- Horsehair brush
- Brass brush
- P-tex candles
- Silicon paper (#100,#150,#200)
- Emery cloth
- Metal and plastic scrapers
- File cleaner
- Body file
- Chrome files (single cut)
- True bar or straight edge tool (to check base flatness)
- File guide (2 degree)
- Masking tape (½ inch / 2 cm.)
- Diamond stone
- Finishing and soft stone
- Iron or waxer
- Wax
- Plastic wraps
- Ski straps

Tuning Steps

There are seven simple steps to basic ski tuning.

- Step 1 - Ski inspection
- Step 2 - Base repairs
- Step 3 - Checking base flatness
- Step 4 - Bevelling base edges
- Step 5 - Sharpening and detuning side edges
- Step 6 - Waxing
- Step 7 - Scraping and texturing the base

Step 1 – Ski inspection

Conduct an overall inspection of the skis.

- Check the sidewalls, top sheet, top edges and base edges for marks and/or burrs
- Use a file, silicon paper or emery cloth to smooth out any rough surfaces
- Use a lighter grit of silicon paper or emery cloth (#150 - #200) for light repair work
- Use a heavier grit (#80 - #100) for serious damage then finish with lighter paper

Step 2 – Base Repair

Prepare the skis for repair work.

- Secure the ski brakes and placing the skis in vices
- Check the base for damage such as gouges, lines or edge burn
- Use burning P-tex material to repair deep base gouges
- Try to keep the P-tex burning with a blue flame to avoid carbon build up
- Drip excess carbon onto a metal scraper
- Let the repair work cool
- Scrape the repaired surface with a metal scraper or body file until level

Step 3 – Checking base flatness

When the base repair is completed, the base should be checked for flatness.

- Slide a straight edge tool or true bar along the width of the base from tip to tail
- Check for variations in the amount of light that appears between the true bar and the ski base
- Wrap #100 - #150 silicon paper around the flat block and sand the base with even strokes
- Check the base with the true bar or straight edge again
- When the base is flat, brush with a brass brush to remove excess base fibres
- Repeat the cleaning process by brushing the running surface with the brass brush and the fiber - tex pad (wrapped around the flat block)

Step 4 – Bevelling base edges

Bevelling the base edges helps to:

- make the ski easier to steer or turn

- stop the ski from running straight

Bevelling the base edges:

- Place the skis in vices with the base up
- Wrap the file with ½ inch masking tape (on the top third of the file)
- Use about 4 wraps of tape which equals about 1 degree of bevel
- Mark the edges with a black marker every 15 centimetres from tip to tail to see how much edge is removed
- Place the top of the file in the middle of the base with the rest over one edge
- Work on one edge at a time
- Work from tip to tail or tail to tip (depending on whether right or left handed)
- Check the work with a straight edge or true bar

Step 5 – Sharpening and detuning side edges

Side edge sharpening and detuning.

- Secure the skis in vices on their side with the base facing away
- Wet a diamond stone and work the stone from one end of the edge to the other to smooth over burred and tempered areas of the edges
- Mark the edges with black marker every 15 – 20 centimetres from tip to tail
- Place a chrome file in the file guide and pull the guide along the edges with short strokes
- Use a body file after the diamond stone if more than 1 degree of side filing is necessary then finish with the chrome file
- Use a polishing stone to smooth the edge and remove burrs left from the sharpening process

The amount of detuning necessary depends on:

- snow conditions
- type of skis
- ability of the skier

Detuning the skis:

- Rub a soft stone or a piece of emery cloth over the edge
- Start with 10 to 15 centimetres from the shovel area
- Detune 10 to 15 centimetres from the tail
- Make sure the tail protector and the ski tip is clean and smooth as well

Step 6 - Waxing

Waxing skis

- Protect the base
- Make the skis slide straight ahead and turn easily

Waxing the skis:

- Place the skis in vices with the bases up
- Keep the vices loose to allow the skis to expand when the base is heated

- Use a base cleaner to remove filings and dirt
- Choose the type of wax that suits the conditions
- Use an iron or ski waxer to heat the wax and the base
- The wax should appear liquid on the base when heated
- Keep the waxer moving to avoid overheating the base and wax
- Test the top side of the ski (shovel) for warmth which will indicate that the base is warm enough to absorb wax
- Allow the skis to cool for 15 to 20 minutes

Step 7 – Scraping and texturing the base

Scraping and texturing the skis:

- Make sure the edges of the plastic scraper are clean and sharp (90 degrees)
- Secure the skis in vices with bases up
- Use short strokes to scrap excess wax from the base (tip to tail)
- Clean the sidewalls and the edges of excess wax
- Texture the base by brushing with a brass or horse hair brush
- Repeat brushing until the bases are clean
- Place plastic on the base before strapping together for transport

4 - Equipment Selection

The information in this module provides general guidelines for selecting ski equipment for entry level participants. There is no bias toward a particular manufacturer as all suppliers produce good products. This module focuses on providing the necessary information to advise parents on what equipment would be suitable for their child.

The main considerations when selecting children's ski equipment are:

- ski selection
- ski sizing
- ski boot selection
- bindings

Ski Selection

Important things to consider when selecting skis are:

- sidecut
- torsional stiffness
- flex pattern
- camber

Side cut

- Sidecut is the difference in width of a ski between the waist and the tip/tail
- The amount of side cut determines the turning radius (in metres) that the ski will make in the snow when the ski is bent to full flex
- Differences in side cut depend on the model and length of the ski
- Slalom skis (more side cut) are designed to make short to medium radius turns
- Giant slalom skis (less side cut than slalom skis) are designed to make medium to long radius turns

Concerns for Entry level participants:

- Younger children do not need skis with too much side cut
- Choose a ski that children can handle in all snow conditions
- Choose a ski that can be steered easily in short turns, bumps and make long carved arcs as well
- Skiers who have developed steering and edging skills through free skiing in varied conditions will be better able to handle skis with more side cut

Torsional stiffness

- Torsional stiffness is the ability of the ski to twist along its length
- It reflects the edge holding capabilities of the ski when it is bending through a turn
- It is determined by the length, side cut, model and construction materials used to make the ski
- Torsionally stiffer skis will generally increase edge grip on hard snow and ice

Concerns for Entry level participants:

- In general, younger children do not require skis with lots of torsional stiffness.

- Junior race skis will be appropriate for skilled entry level children

Flex pattern

- The flex pattern is the ability of the ski to bend to full flex at the waist with the tip and tail secured
- The flex pattern of a ski is reflected by the amount of effort needed to bend the ski
- It is determined by the length, model, torsional stiffness, and construction materials used to make the ski

Concerns for Entry level participants:

- Children do not require a stiff flex pattern

Camber

- Camber is the natural arc or curvature built into the ski when laying flat
- It determines the rebound or re-camber ability of the ski when the ski is unloaded during a turn
- The amount of camber in a ski is reflected in the flex pattern (more camber generally means a stiffer ski)
- Junior race skis will have better performance characteristics but may be less forgiving

Concerns for entry level participants:

- Use the same criteria as in choosing the flex pattern
- Junior race skis will be better suited to the more skilled children

Ski Sizing

Guidelines for ski sizing pop up

It is better for entry level children to ski on a shorter ski because:

- it is easier to turn
- it will help with the skier's skill progression
- The skier will enjoy skiing much more

Ski length for entry level children should be determined by:

- age of the participant
- number of years of skiing experience
- skill level
- history of past activities (hockey, soccer, gymnastics, track and field)

The recommended length of ski for young children is from the floor to between the nose and top of the forehead. Longer skis may be appropriate for children with more skiing experience and whose skill level has improved. In the long term though, skill development in younger skiers may be impeded if skis are too long.

Ski Boot Selection

Important things to consider when selecting ski boots are:

- boot design
- flex
- sizing
- alignment

Boot Design

There are two options in boot design for entry level skiers:

- rear entry
- overlap

The **rear entry** design is comprised of:

- a main part of the boot that surrounds the ankle, instep and fore foot
- a rear part that supports the heel and back of the leg
- the two parts which create a total support system when the buckles (usually two) are done up

This design provides:

- warmth
- comfortable fit
- lateral support
- reasonable support for younger entry level children

The **overlap design** is comprised of:

- a lower shell which supports the whole foot
- an upper cuff which articulates with the lower shell using a hinge at the ankle
- an inside portion of the shell and cuff which close over the outside when the boot is buckled up

This design provides:

- more natural ankle movement due to the hinged upper cuff
- good support of the lower leg and foot due to distribution of the buckles

Boot Flex

Ski boots should not affect the skier's ability to bend forward in the leg joints. A softer flex rating in ski boots:

- allows the skier to flex the upper part of the boot
- allows natural ankle articulation
- is forgiving with the skier's movements

Boot Sizing popup

Boot Sizing

The following considerations should be taken into account when sizing boots for entry level skiers:

- children's feet are growing
- boots should provide support, warmth and comfort
- boots that are sized too short or narrow can affect the natural function of the foot
- boots that are poorly fitted can cause bone spurs on the feet, ankles and heels
- boots that are too high will affect the skier's forward/backward balance

Boot Alignment

Children's boots should be aligned with the lower leg. This will:

- eliminate interference with the skier's lateral balance
- help the skier develop good edging skills
- reduce pressure of the boot on the inside of the leg

Foot beds

Foot beds are an important factor in skill development. While some sport experts suggest that most entry level skiers require some sort of foot supporting mechanism, others contend that foot beds do not play an important role to an entry level skier's development due to the following:

- Growth and development factors – children's feet are continually growing
- Affordability – foot beds are an additional cost factor

Bindings

The most important consideration in terms of bindings is **safety**.

All bindings currently on the market are safe if they are mounted on the skis and adjusted by a certified technician

Entry level coaches should not attempt to adjust or modify bindings unless they have been certified by the manufacturer.

5 - Mental Skills Training

Goal Setting

Mental skill training is as important in ski racing as developing technical and tactical skills and physical fitness. It is often the most overlooked performance factor by skiers and coaches.

Mental skills training will help entry level skiers to:

- *set goals* for themselves with help from the coach
- recognize the relationship between *positive self talk* and *self confidence*
- *visualize* themselves performing the task before actually doing it
- perform the task, then review the performance to reinforce *self learning*

Coaches can help young skiers learn to set goals for themselves by:

- encouraging skiers to establish daily goals based on what they feel they have just learned
- helping skiers understand the difference between a daily goal, a short term goal (week) and longer term goals (season).
- ensuring that the goals originate from the skier
- ensuring the skier knows that the goals he or she set are attainable and realistic

Coaching considerations:

- Keep the goal setting process as simple as possible
- The coach acts as a facilitator in the process

Positive Self Talk

Positive self talk can have a positive effect on:

- the skiers' mood
- the ability to concentrate or focus
- the ability to refocus when things go wrong
- self esteem
- self identity

The role of the coach is to help skiers learn to:

- differentiate between positive and negative self talk
- use positive self talk to build confidence

Self Confidence

One of the key roles of the entry level coach is to help young skiers develop a sense of self esteem and self confidence.

Those who display a sense of confidence are:

- more willing to work within a group
- more receptive to coaching feedback
- a more willing participant in the self learning process
- ready to challenge themselves
- better able to cope with frustration

- better able to follow verbal and visual instructions

The role of the coach:

- Set up the learning environment so that the participants are more successful than not
- Make sure the participants are active and not standing around
- Provide encouragement

Visualization

Learn to picture a performance in your mind before actually doing it. This helps:

- develop basic focusing skills
- learn to integrate mental imagery with physical activity
- use imagery and focusing skills to control emotions

The role of the coach:

- Ensure participants have a good visual image of the task
- Ensure verbal instructions are precise and to the point
- Give participants time to perform mental imagery before each task

Self Learning

Young skiers learn best through guided, active play. Exposure to all the variables of skiing will help them:

- discover what they are capable of doing in different conditions
- discover different ways of dealing with changing situations
- become more self reliant

Implications to the coach:

- Encourage the skier to visualize themselves doing specific things
- Encourage the skier to think about performing the task and not the outcome
- Encourage the skier to review their performance and let them draw their own conclusions
- Provide feedback to the skier based on the skier's own conclusions