



TERMS USED IN SNOWSPORTS:



Abduction: Movement of a limb away from the body's midline

Absorption: Allowing the leg muscles to relax and joints to flex in response to forces applied to the skis, creating a momentary reduction in force.

Acceleration: The rate at which an object's velocity changes over time, including both magnitude and direction.

Adduction: Movement of a limb toward the body's midline.

Alignment: The positioning of the body so that forces derived from the interaction of the skis on the snow pass through the body's CM to produce the intended movement.

Angulation: Laterally tipping the body relative to the slope by creating angles between various body parts. It allows a skier/boarder to adjust edge angle and maintain balance toward the outside. Examples are hip angulation and knee angulation.

Apex: The farthest point of a turn, approximately midway through the arc, in which the skis/board point straight down the fall line. Also used to indicate peak forces in a turn.

Arc: The curved path of the skis/board during a turn.

Athletic Stance: A body position in which the skier/boarder is in balance without excessive leaning (laterally, fore, or aft) and is aligned over the feet. Defined by the ability of the person to move in any direction at any time.

Axis: A line about which something rotates; a reference line for human movement.

Backfoot: The foot closest to the tail of the board.

Balance: A state of equilibrium that provides both a source for and an outcome of effective movement; when the skier's/boarder's center of mass and base of support are aligned to counteract the forces generated from the snow.



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Balancing: a source and outcome of effective movement.

Balancing Movements: Muscular actions to maintain equilibrium, or the desired alignment, on skis or a snowboard. These movements are usually divided into two categories: 1) actions that affect fore/aft balance and 2) actions that affect lateral balance.

Ball-and-Socket Joint: A joint in which a knob-like part of one bone fits into a socket of another, allowing rotation as well as flexion and extension. The hip and shoulder joints are ball-and-socket joints.

Banking: A form of inclination that describes a relatively straight body leaning toward the inside of a turn.

Base: The bottom surface of skis or snowboards.

Base of Support (BOS): The location of a skier/boarder's weight on the snow.

Blocking: Any movement or action that reduces or eliminates movement in a given direction.

Blocking Pole Plant: An abrupt pole plant used to stop or control upper body rotation. Sometimes used in Moguls

Body Performance: An element of movement analysis in which the instructor observes how a student's body movement influences performance.

Brake/Braking: To slow down by interrupting the flow of a turn

Braking wedge: A tactical means of speed control, in which the skier increases the size of the wedge and degree of edge angle in order to slow down or stop.

Camber: The arched shape of an unweighted ski when viewed from the side, consisting of four camber profiles: traditional, reverse camber, hybrid (rocker/flat combinations), and flat camber.

Cant or Canting A wedge-shaped item that can be placed under a boot or binding to align the boot from side to side.



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Carved turns: To make turns with minimal skidding by tipping the skis/board on edge and allowing the shape of the ski to create a turn with minimal lateral slipping or skidding. Curved turns display clean, long arcs in the snow as the entire edge of the ski passes through the same point in the snow. A skidded turn, by contrast, utilizes more muscular rotary movements to cause the ski to turn.

Cause-and-Effect relationships: Typically, body movement or position is the CAUSE of the ski/board performance and the ski/board performance is the EFFECT.

Center of mass (CM): The point at which the entire mass of the body may be considered to be concentrated. If the body is viewed as made up of many small elements of mass, the average location of these elemental masses is the CM. The CM location changes as body position changes and may even be located outside the body.

Christie: a phase of a turn where both skis skid on corresponding edges. This is the portion of the turn where skis are matched

Counter: to go the opposite way. The term typically refers to a relationship in which the lower body turns against or opposes the upper body or vice versa

Counter-rotation: Twisting the upper body in one direction and the lower body in another direction at the same time.

Demonstrate: To perform a task or exercise highlighting particular movements.

D.I.R.T: an acronym standing for Duration, Intensity, Rate, and Timing. These are terms that attach value, and therefore description, to movements being observed. Also, the direction of the movement relative to the slope should be considered.

Duration: Length of time the movement exists

Intensity: The Power Given to the Maneuver

Rate: The speed at which a movement occurs.

Timing: When the movement occurs. Could be in relation to another event.



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Dorsiflexion: Ankle flexion of the foot upward, toward the shin.

Down Unweighting: A quick flexion of the legs that produces a momentary reduction of pressure as the skier's center of mass falls.

Drill: A task or exercise used to enforce a desired performance or retain knowledge; practice or repeat an exercise.

Duration: The length of time a movement occurs (which the instructor observes as a quantifiable element of movement analysis).

Dynamic balance: Balance in motion; see also balance.

Dynamic Parallel: A parallel turn with more carving than skidding or drifting. Energy stored in the ski during one turn is released to aid the start of the next turn. In contrast, a non-dynamic turn relies on more muscular rotary movements to cause the ski to turn.

Edge: A metal strip inserted between the base and the core on the side of a ski; the edge can be sharpened, allowing a skier to slice through hard snow and ice.

Edge Angle: The amount of ski tilt relative to the surface of the snow and to the hill. A ski placed flat on the snow has zero degrees of edge angle. The greater the edge angle and equipment sidecut, the shorter the turn radius.

Edge Change: the action of tilting from one edge to the other. This action is the most fundamental aspect of turning. It can be performed while the skis are in contact with the snow or without such contact.

Edge Control: Tipping the skis/board relative to the length or longitudinal axis of the skis/board. Skiers/Boarders use this skill to increase or decrease the angle of the ski to the snow. Also called Tipping on Snowboard.

Edging: Tipping the skis on their edges.

Edging Movements: Movements that increase or decrease edge angle.



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Effective Edge: The length of a snowboard edge that contacts snow during turns; excludes edges on the tip and tail. A longer effective edge boosts stability and grip, good for boarders who ride fast on groomed runs. A shorter effective edge makes boards easier to turn and spin.

Exercises: Situations and tasks instructors create to break down and isolate certain movements and skills for development. Exercises are often combined into a progression, or exercise line.

Extend: To make longer; to stretch or open, e.g., extend a joint.

Extension: Any movement that increases (i.e., opens) the angle (as expressed in degrees) of a joint. At times, a skier extends the knee, hip, and ankle joints simultaneously. See also flexion.

Fall Line: An imaginary line that follows the steepest line of descent; the path along which a ball would roll if released down the slope.

Feedback: Information instructors give students about their performance; helps clarify if and/or what action is needed to achieve a desired result; or information by watching and listening.

Finish Phase: The last third of a turn, beginning shortly after the fall line and continuing until the skier achieves the desired direction change and skis are parallel and perpendicular to fall line.

Flexion: Any movement that decreases (i.e., closes) the angle (as expressed in degrees) of a joint. Often, this entails bending the spine, knee, hip, and ankle joints simultaneously. See also extension.

Float: A sensation of lightness derived from riding in powder or through the air; or to rise to, or ride on, the surface of the snow.

Footbeds: Inserts for ski boots designed to support the foot and/or provide a neutral stance.



TERMS USED IN SNOWSPORTS:



Force: A push or a pull that acts on a body and changes its position or speed. The forces most relevant to skiing are gravity, friction, and centripetal force.

Fore: Toward the tip of the skis.

Forward Lean: Measured in degrees, the design of a boot that establishes a certain amount of ankle dorsiflexion and limits plantar flexion; adjustable in some boots.

Front Foot: The foot is mounted closest to the nose of the board.

Garland: Linked transitions from a sideslip to a forward sideslip, then back to a sideslip. Activity should be done without stopping, and by adjusting edge angles and pressure along the skis. Repeated in the opposite direction.

Glide: Sliding straight without using the edges.

Gliding Wedge: A means of developing early ski skills and speed control without turning, in which the skier adjusts the width and size of the wedge (large to small back to large) to get a feel for the slipping action of edged skis over the snow

Goofy: Riding with the right foot forward (as opposed to regular, or riding with the left foot forward).

Heel Edge: The edge on the snowboard where the heels rest.

Heelside: The edge of the board closest to the rider's heels.

Independent Leg Action: using the legs separately from one another to fulfill specific functions in skiing, e.g., transferring weight, pedaling, skating, stemming, stepping, or rotary movements of one leg.

Initiation Phase of Turn: This is where the turn begins. The mass of the body moves over the skis/board and to the inside of the new turn. This involves changing the edge and shifting weight from one ski to the other.



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Inside Half: Hip and ski ahead and higher related to the outside ski.

Kinesthetic: A term that refers to forces that act outside the body to create a sensation, such as the boot pressing upon the leg

Lead Foot: Foot closer to the front of the board.

Learning Styles: Learning styles or preferences represent the ways your students collect, organize, and transform information into movement patterns.

Visual Learner: These people learn best by watching and imitating

Cognitive Learners: These types of students value abstract conceptualization, so they're typically analytical, logical, thorough, and theoretical. They would rather read than listen to lectures, and they may be perceived as loners or dreamers. At times, they can be meticulous to a level of obsession

Auditory Learners: Auditory Learners: Students who process information verbally and cognitively. These students enjoy descriptions and talking about their experiences.

Kinesthetic Learner: A person who processes information through feelings and sensations

Leg Rotation: movement of the lower body to affect the direction the skis point. The degree of versatility makes leg rotation the most effective source of rotation for most alpine skiing applications. It is a constant source of rotational input throughout the entire turn

Lower Body: A portion of the body that starts at the hip socket and extends from the femurs to the feet.

Matching: the movement toward aligning the direction of the skis after they have been brushed or stepped into a wedge position. The skis are brought either from positions of divergence or convergence toward a parallel relationship

Nose: The front tip of the snowboard.

Ollie: A jump into the air without assistance from a jump; often executed by lifting first the front foot and then the rear foot while springing off the tail.



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Open Parallel: Skis are parallel throughout the turn, but may be on a lower edge angle, allowing for some drifting and skidding to occur.

Parallel Turn: Skis turn parallel with simultaneous foot tipping/steering, both skis remain in contact with the snow. The tip creates the path that the tail follows.

Phases of the Turn: The breakdown of the turn into parts.

Initiation Phase: This is where the turn begins. The mass of the body moves over the skis/board and to the inside of the new turn. This involves changing the edge and shifting weight from one ski to the other. The top third of the turn.

Shaping Phase: The middle third of the turn from just before to just after the fall line. The Skis/Board reaches the highest edge angles and forces.

Finish Phase: The last third of a turn, beginning shortly after the fall line and continuing until the skier achieves the desired direction change and skis are parallel and perpendicular to the fall line.

Pivot: the Ski/Board rotates around a particular point along its length.

Pressure: The amount of force distributed over a given area. Flexing and extending movements of legs and core redistribution of weight from foot to foot, increase and decrease of edge angles, turn shape and size.

Pressure Control: Managing forces acting on the skis. Skiers manage the distribution of pressure along the length of the skis, transfer pressure from one ski to the other, and adjust the overall magnitude of the forces acting on the skis.

Progression: A sequence of tasks, drills, maneuvers, movements or events that increase in difficulty and are designed to meet a goal.

Real vs Ideal: the instructor compares the students' performance (real) to a performance (ideal) for a given task, condition, intent, or mechanic.



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Rocker: Opposite of camber; sometimes called reverse camber. When placed on flat ground, a rockered ski/board's tip and tail rise off the ground while its center touches it (much like the curved floor rails of a rocking chair).

Rotary Movements: A twisting of the feet, legs core and other body parts in an effective balanced manner.

Rotation: a process of transmitting the rotary momentum of the torso and hips around the vertical body axis to the feet and skis/board

Rotational Movements: Movements that increase, limit or decrease the rotation of the skis/board

Rotational Control: The portion of an exercise line (or progression) in which the skier sets into motion the movements and sensations initially introduced in a stationary exercise

Shaping Phase: The middle third of the turn from just before to just after the fall line. The Skis/Board reaches the highest edge angles and forces.

Sidestep: A movement in which the skier climbs up or down a slope by standing perpendicular to that fall line and taking small steps with each ski, keeping the skis parallel

Skidding: Movement of the skis in a curved path characterized by simultaneous sliding (forward action) and slipping (sideways action) of the skis.

Skidded Turn: A turn in which the edges skip laterally as they travel forward. A turn that is not carved, it utilizes more muscular rotary movements to cause the ski to turn

Sliding: the movement of the skis/board in the direction of the long axis of the skis/board.

Slipping: a movement of the skis/board across the snow in a direction perpendicular to the long axis of the skis/board



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Steering: the result of the skier's muscular effort to guide the skis along the desired path; a twisting of the foot or leg coordinated with as much use of the ski design as is available for each circumstance.

Stemming: the displacement of one ski to a position convergent with the other ski; skis are on inside edges.

Switch: Riding while facing backward. A more contemporary term for riding fakie.

Tail: The rear tip of the snowboard.

Task: an assigned activity that focuses on specific instructions, goals, movements, or skills

Tilt: Tipping the snowboard on or off the edge.

Toe Edge: The edge of the snowboard where the toes rest.

Torsional Flex: The amount of twist a snowboard exhibits across its width (edge to edge).

Transition: A process of linking turns that begins during the finish phase of a turn and continues into the initiation phase. It begins as the skier decreases edge angles in preparation for an upcoming turn and ends as new edges are engaged.

Technique: how skiers move, or the methods skiers use to apply the mechanics of skiing. Different techniques provide movement options for how skiers affect or react to the action of the skis on the snow.

Traverse: To ski/ride diagonally or perpendicular to the fall line.



TERMS USED IN SNOWSPORTS:



Turn Radius: the size of a turn as defined by the length of the radius of the circle which would be described by the turn, e.g. a "short radius" or "long radius" turn. Influenced by sidecut

Short Radius: Turn shape is 1 to 1 1/2 groomer tracks wide.

Medium Radius: Turn shape is 1 1/2 to 3 groomer tracks wide.

Large Radius: Turn shape is larger than 3 groomer tracks wide.

Turn Shape: The path the ski takes often when braking or controlling speed. Common descriptions include C, J or Z-shaped turns.

Unweighting: an action of reducing or eliminating the pressure of the skis in the snow.

Upper and Lower Body Separation: The upper and lower parts of the body work independently. Upper-lower body separation is critical to allowing the legs to turn beneath the body. The only time you want to be facing in the same direction as your ski tips is when they're turning back across the fall line.

Upper Body: Portion of the body which includes the pelvis, spine, and head.

Upper Body Rotation: The movement in which the upper body turns first, followed by the legs turning in the same direction

Wedge Christie: A basic turn in which the skier starts in a wedge and during the shaping phase of the turn, actively steers the inside ski to bring the skis into a parallel position

Weight Transfer: shifting the weight of the body from one side of the vertical axis to the other, a form of pressure control.

Wedge: A position in which the skis converge so the tips are closer together than the tails and the skis are on opposing edges



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Wedge Turns: turns made with the skis in an "A" or wedge stance—tips in, tails out.