**Skill Focus**: Rotational Control

Turning the skis about the vertical axis of the body. Skiers use this skill to affect the direction their skis point.

**Skiing Fundamental**: control the skis rotation (turning, pivoting, steering) with leg rotation, separate from the upper body.

**Plane of Movement**: Horizontal

This week’s skill focus is on rotary movements. Controlled rotary movements. Where the skier’s legs are turned underneath a stable and quiet upper body. The femur turns within the hip socket instead of the entire hip coming around. The timing and duration of rotary movements should match the desired sized turn shape while creating smooth C shaped turns.

If control of rotary movements is lost:

* the skier cannot utilize the legs properly.
* The shoulders and or the upper body is used to initiate the turn.
* The upper body, you’ll notice, begins turning before the legs and feet turn.
* One ski stems or steps.
* The skis pivot and skid through the finish of the turn creating a Z shaped turn that carries the skier further down the hill than across the hill.
* Watch for quick movements at any point during a turn where the tails take a longer path through a turn than the tip.

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| **Ski Snow Interaction Observations** | **Body Movements**  **Pages 17-22**  **PSIA Alpine Technical Manual** | **Body Parts creating movements** |
| * Step * Brush * Push * Turn * Steer * Pivot * Converging/diverging * Simultaneous * independent | Counter  Anticipation  Leg Rotation  Upper body  Whole body | * femur rotation * lower leg rotation * leg abduction * leg adduction * feet * upper/lower body separation * strong, “stable”, “quiet” upper body * upper body facing direction of travel * upper body rotation |

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| **Drills** | **Level** | **Outcome** | **Movements** |
| “C” Shape  Stationary Boot work | Beginners | Promote the feeling of turning the legs in the hip socket. | Femur rotates in the hip socket while scribing a “C” shape in the snow |
| Butterfly/Bowtie  Stationary boot/ski work  Next Steps:  Step skis to a wedge  Hop skis to a wedge  Brush skis to wedge | Beginners | the pivot point should be under center of foot creating a butterfly or bowtie shape in snow | Rotate the femur within the hip socket.  Rotate femurs internally to create a wedge.  Rotate femurs externally until boots/skis are parallel |
| Ski Tip Rotation against ski pole | All levels | Feel the muscles in the inner thigh & glute that rotate the femur  External rotation = glute  Internal rotation = groin | Place ski pole in snow b/w skis.  Rotate the inside edge of the right ski against the pole (groin).  Rotate the outside edge of the right ski against the pole (glute) |
| Bullfighter Turn  Stationary | Beginners | Initiate turns with inside ski. Independent leg turning | Inside femur is externally rotating & outside femur is internally rotating |
| Paddle Turn  Next step:  Traverse > paddle turn downhill > paddle turn uphill > traverse | Beg/Inter | Independent leg turning  Next step outcome:  Speed control with skis across fall line | Pressure directed to outside ski as the inside femur/ski is rotated in direction of turn |
| Side Slip | Intermediate | Hips opened facing down the hill; maintain slight upper body to lower body separation | Rotational control of the femur to maintain a parallel relationship with the skis |
| Hockey stops | Intermediate | Upper body (including the pelvis) travels down fall line.  Femurs rotate within hip socket; independent of upper body | Straight run > turn legs in hip sockets > upper body moving down fall line > sliding to a stop |
| Pivot Slips  Next Step:  slowly softening the pivot & directing the movement into a “C” shaped turn with low edge angles> then slowly increasing the edge angle | Advanced | Focusing on control of the pivot Stable upper body  Legs rotating in the hip sockets, independent of the upper body | Leg rotation develops independent of upper  Centered over ski > travel downhill each pivot  Quiet upper  Ankle flexion  Rapid extension of hip, knee, ankle > reduces pressure on ski so ski can pivot  Edge angle adjustments > low edge angle allows skis to pivot rapidly  Control the side slipping speed |
| Whirlybird | Int/Adv | Improved guiding of the inside leg to initiate turn | Look in direction of turn  Inside leg/femur rotates 1st |

**Sample Progression (see page 92-93, PSIA Alpine Technical Manual):**

Goal: Promote rotary action of legs under a quiet upper body in a skidded parallel turn.

Stationary: Bowtie

Simple: Paddle turn to a stop or J-shaped turn > straight run, gentle slope, rotate legs/femurs (bowtie) under a quiet upper

Complex: Garland > focus on turning the skis by continuing to rotate the legs under a stable pelvis & upper body

Whole: Linked skidded turns > parallel > apply learned leg rotation

**Sample Rotational Control Progression:**

Stationary wedge to parallel

Traverse wedge to parallel

Garland: wedge intiation to parallel @ finish

Turn