Crossovers - Edges: Why And How

Crossovers are the maneuvers used to accelerate on curves, circles and corners. They make it possible for players to weave in and out of traffic, zigzag down the ice, change direction, turn from backward to forward, and move laterally (from side to side). Powerful, fast crossovers are essential for all hockey players.

Introduction:"Crossover" refers to the passing of the outside skate (the one nearer the outside of the curve) over (in front of) the toe of the inside skate.

- Forward and backward crossovers are very similar.
- Knee bend: Ideal knee bend is a 90 degree angle, when measured between thigh and shin.
- Edges (Angulation): Skates, knees and hips press into curve or circle. Angle of engaged skate blade to the ice at speed and on sharp curves is 45 degrees.
- Upper Body: Shoulders are held level to the ice, or even slightly counter-leaned (inside shoulder higher than outside shoulder). Upper body does not tilt (lean) into the circle and the shoulders do not move around.
- Skates stay close to the ice at all times - for example, at the finish of pushes and while moving to change feet.

Edges - Why. Edges are the key both for traveling a curved path and for pushing against the ice. Contrary to popular belief, skates are NOT held straight up. When held straight up the skater rides on the "flat" of the blade (rides on inside and outside edges simultaneously). The flat of the blade is designed to travel a straight line on the ice. It is not designed to curve or to grip the ice. Therefore, when on the flat it is impossible to curve or to push.

- **Gliding on an edge:** When the gliding skate is on an edge, the more the foot presses, the boot leans, the knee bends, and the upper body balances over the engaged skate, the sharper the curve or circle.
- **Pushing against an edge:** In preparation for pushing the pushing skate must dig into the ice. The more the foot presses, the boot leans, the knee bends, and the upper body balances over the engaged skate, the more effectively the skate will be able to grip the ice and the greater the potential for thrust against the ice. In forward and backward crossovers the inside edge and the outside edge are both used for gliding (as the directional skate) and for pushing (as the movement generating skate).

Edges - How. Skates and Body Must Coordinate to Achieve Edges. Crossovers require strong, simultaneous edging on both the pushing and gliding skates. The inside skate always glides on its outside edge; the outside skate always glides on its inside edge. The skates alone cannot achieve edges. The entire body must coordinate with the skates to produce effective edges.

- **Lower Body (skates, knees, thighs, hips):** To achieve an inside edge - Lean the skate, knee, thigh and hips toward the inside of the body (and curve). To achieve an outside edge - Lean the skate, knee, thigh and hips toward the outside of the body (and curve). The angle of the knee and thigh line up above the skate (all three are at the same angle to the ice).
- **Upper Body (torso, shoulders, head):** Upper body must be balanced with weight concentrated over the engaged skate.

Practicing Properly: Motor learning is a long-term process. With this in mind, practice slowly and in segments, then slowly as a whole, then faster and faster, then at top speed, and same while controlling a puck. The ultimate goal is to skate correctly, powerfully and quickly, with or without the puck, when in game situations and under lots of pressure.