**Improve Your Strength & Conditioning**

**Technique and Fitness**

Technique is the most important component of ice-skating, in-line skating and figure skating. Without proper technique, muscle strength, speed, quickness, agility and power are virtually wasted through inefficient movement. On the other hand, utilizing proper technique allows you to exploit good muscle strength and power.

If you want to be at the top of your game, then you need to build a solid fitness base for speed, quickness, agility, lateral motion and power. This fitness base will require a program encompassing aerobics, flexibility, muscle strength and endurance. To be a great skater not only requires utilizing the proper technique, but the strength available to execute the skills required at a high tempo. It has often been said that skating is "legs, legs, legs." A weak set of leg muscles results in poor knee bends, stride power and endurance, which impacts stops, starts, pivots and free skating. Weak muscles, either lower or upper body and lack of core strength will not only impact skating but passing, shooting and battles along the boards. Build muscle strength and muscle endurance and you now begin to build a solid foundation to improve your overall hockey skills.

Skating involves the use of three primary joints: knees, ankles and hips with assistance from the arms and shoulders. Muscles and tendons support and provide stability to your joints. A skater needs to strengthen all their lower body muscles in order to support the multi-joint movements of the knee, ankle and hips in skating. Muscle flexibility parallels the importance of muscle strength. This can be achieved through strength and conditioning training. Having a strong set of quads and weak muscles surrounding the joint opens you to potential injury.

Hockey is a game of quickness, agility and sprints. Your body is called on to perform a multi-range of motions repeatedly; therefore your muscles must have elasticity and endurance to perform each motion. Repetitions will train and help muscles for endurance.
**Strength, Power and Endurance**

Muscle length and flexibility also play a key role. The more flexible and longer your muscles are, the greater your endurance and power. Flexibility improves your range of motion and elasticity. Skating is a one-legged movement requiring a good range of motion of every muscle group and elasticity around every joint, transferring weight and center of gravity over the supporting leg.

The PowerSkater stretches the muscles using momentum at the end of the range of motion thus providing dynamic flexibility. Each leg stride is performed under resistance or opposition to the joint movement and range of motion. The PowerSkater provides both concentric and eccentric actions through multi-joint movements resulting in dynamic contractions.

Maintaining a squat posture (knee bend) in any form of skating requires significant lower-body strength. Generally speaking, the weaker the lower body muscles, the more upright the skater - thus the shorter the stride, resulting in a more unstable posture and slower skater.

The PowerSkater activates the precise skating muscles, ranges of motion and joint angles at the hip and knee. The skating range of motion is performed against resistance, loading the specific muscle groups. The PowerSkater will develop power and speed through the repeated stride motion and build up of muscle strength.

**A Key Link: Training, Results**

The PowerSkater is a key link between dry land training and on-ice results. Acceleration, stride power, stride length, mechanical rehearsal, dynamic balance and anaerobic endurance are best accomplished on the PowerSkater.

When on the PowerSkater there is nothing to hang on to so the skater must balance using their own body. The athlete sets up in a single leg squat position, standing on one leg and striding with the opposite leg. This multi-joint strength movement draws on the entire body to perform this exercise. The shoulders are active because the skater moves the arms similar to on-ice skating. It is the only machine available which is not only skating-specific, but develops functional strength and athletic strength and harnesses the entire body in a standing position. Of course the hips, gluteus and legs predominate and are the driving force behind the stride. Legs are the big priority in training.
The PowerSkater system provides the most specific training method to give skaters the physical tools they need to meet on-ice demands. Most importantly, it is so specific to the stride mechanics that it not only transfers best to the ice, but is valid skill rehearsal in and of itself.

Attempting maximum power during PowerSkater stride drills will help skaters maintain a positive angle from hip to the ice, achieve a strong leg drive, and use the skate edges to generate maximum force.