

**H**istory suggests the wheel was invented to make life easier. The Mesopotamians called dibs on the potter's wheel dating back to 3500 B.C., 3,000 years before the wheelbarrow and another four thousand years before the chariot. Conventional exercise physiology authors teach us that cyclists have strong quadriceps, hamstrings, calves, glutes and hip flexors. For this article, I offer these two thinking points: the wheel is worsening your athletic career; and stationary biking leaves you tight, weak and susceptible to injury.

Hockey players for instance, skate with a 73-degree angle at the knee. You know, and I know, that skating for long periods of time with deep knee bend yields pain in the form of lactic acid. When hockey players get tired, their mechanics and skating stride breaks down, resulting in an upright posture. Upright postures lead to injury.

Furthermore, complicating other injury predispositions to the hockey athlete are shortened hip flexors, shortened iliopsoas and shortened IT band. To remain in a deep knee bend during hockey performance, you will need to strengthen your eccentric quadriceps strength and lengthen your hip flexor complex. Stationary biking is an absolute precursor for injuries to hockey players who are already overworking their hip flexor complex. In very rare instances, athletes who may be able to withstand the demands of competition and get away with the lack of development that the bike provides include elite hockey players, rowers, cyclists and golfers. The majority of you, however, will not be as durable.

Fear not: There are plenty of off-ice ways to work on strength training, injury prevention and player development. When life gets in the way, these five activities will improve hockey-specific

# JUST SAY NO TO THE BIKE

■ Try these 5 alternatives for hockey-specific conditioning and strength gains

hand-eye coordination, hip and thoracic mobility, footwork, speed, strength, conditioning and ultimate durability.

**Golf** | No other sport replicates the mechanics of a hockey player more than golf. With a focus on hand-eye coordination, thoracic mobility, hip extension and core stabilization, 18 holes of golf is the ideal off-ice activity to help you improve your shot velocity, puck handling and focus.



JOE CALIGIURI

**Soccer** | The difference between a slow skater and a fast skater is all about stride turnover. On average, it takes .5 seconds for a "slow" skater

to execute a single stride (from the skate's first contact with the ice, to full leg extension and the leg's return to flexion). "Fast" skaters typically execute a stride in .35 seconds. A stride's speed and power is greatly influenced by hip flexor strength, hip extension power and knee flexion angle. Playing soccer will force the muscle recruitment of hip flexors, quadriceps decelerators and fast-twitch muscle fibers to improve stride power, frequency and recovery.

**Treading water** | Skating is not a natural movement. Neither is treading water. Water is both buoyant and fluid and therefore creates resistance without causing injury. Water creates more resistance than air, which in turn will deliver similar aerobic results with less physiological stress on the body. When treading water, increased water pressure helps to pump blood flow to the heart while core, hip and arm muscles are utilized to maintain an upright position. For hockey players looking for aerobic conditioning with decreased load on joints, treading water is an excellent place to start.

**Trail running** | Whether in the snow or on dry land, trail hiking is an exceptional training experience. Utilizing moderate inclines with varying pace, trail hiking/running teaches skaters to maintain a slightly forward posture while propelling forward, decelerating downward and adjusting appropriate to unpredictable obstacles. With appropriate tempo, hiking mimics the acceleration, endurance and kinetic awareness required to maintain an injury-free, high level of intensity for extended periods of time.

**Racquetball** | The epitome of agility, hand-eye coordination and conditioning, racquetball exposes hockey players to intense changes of direction, rapid acceleration and fundamental deceleration in sport. In conjunction with lower-body power and trunk rotational mobility, racquetball develops a strong lower back through bouts of high-intensity exercise. Racquetball is the ideal sport for hockey players looking to improve their kinetic foresight,

footwork, focus and coordination.

Durability training is available in dozens, if not hundreds, of variations. You don't need a sheet of ice, a hockey stick, puck or net to achieve an injury-free athletic career. To remain injury free, you must be open to exercises and activities that diversify the type of athlete you wish to become. Multi-directional movements, varying tempos and unpredictable adaptations are variables that will set your training ahead of your competition.

Don't be afraid to put the stick down, pick the racket up and break a sweat. I would confidently say that it is more likely than not that you are at an increased risk of suffering season-ending injuries if stationary biking is your primary conditioning methodology.

Hockey players are the toughest athletes in the world. Get off your butt and train like it. **H**

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