



Time for Sprints and Jumps

Jack Blatherwick

"What does sprinting or jumping have to do with hockey?"

I'm asked that question often - especially by the athletes who have to grind it out on the track. The answer comes in several parts, but the bottom line is, whatever makes you a faster sprinter will automatically make you a faster skater.

In testing thousands of players we learned there was a very constant relationship between running speed and skating speed. On every team, from bantams to college, Olympics, and pros, the fastest skaters are likely to be the fastest sprinters.

Likewise, those who jump the highest are likely to be faster skaters.

This in itself would not prove that sprinting and/or jumping will make you skate faster, so we tested college players who trained this way for five weeks. They improved significantly in running speed, jumping ability, and leg power on a bicycle.

More importantly, their times on skating tests of speed, agility, and endurance were significantly better, even though they had only skated twice a week in captain's practice scrimmages. Another college team that did not run, but had captains' practice five days a week did not improve in any skating test.

Also, for the record, when we measured endurance capacity during an incremental bicycle test, the college players who did sprints and jumps performed much better than they had five weeks before. They were able to do about 25% more work, and their maximum oxygen uptake was improved by 8%. At every workload below maximum their heart rate was significantly lower than when they tested five weeks before, showing important gains in cardiovascular efficiency.

Running power; skating power; endurance measured while running, biking, and skating. These are the benefits of a five-week program of sprinting and jumping.

Is there another way to train so effectively for hockey? None has been shown by scientific research to work as well.

So, why is the fall the time for sprints and jumps? Actually, there are other times of the year, of course, but many hockey players are involved in hockey camps, leagues, and other sports in the summer.

Remember the importance of periodization, of changing your training program every month, so your body has to adapt quickly to the change. There are periods of the year to emphasize skating. Other months the highest priority should be leg strength. But after a summer of strength gains, there is no better time to improve running speed and leg power. The emphasis in the fall is on quicker strides and explosiveness out of the blocks.

Another reason for fall sprint training is that you are back at school and can run with your teammates. The sprints are only effective if they're done with 100% intensity. Competition helps; so races make the workout more fun, and probably more effective than running by yourself.

To structure the workout, start with a good warmup, stretching between warmup sprints. Add some easy jumps and skating simulation drills to increase the skating range-of-motion. Build-up sprints (gradually accelerating to full speed) are the best warmup, because there is less chance of a muscle pull. In the first couple of weeks, build-ups should replace any explosive, full-speed sprints until there is less chance of injury.

Next, you should do the highest quality short sprints, forward, backward, and uphill. Choose various distances between twenty and sixty yards, and give yourself plenty of rest, about 1-3 minutes for each sprint. These are not wind sprints, done for endurance; the only goal is explosiveness, and adequate rest is important.

Jumps from a deep knee bend will improve your skating stride. One-legged jumps, two-legged or split-legged jumps can be done with or without a weight vest. Start a new set of jumps every minute or 90 seconds; bend your knees and explode as high as possible.

print-endurance is the hardest part of the workout, and can be done on a flat track, uphill, or running in place on a port-a-pit. These should be timed intervals. For the shorter sprints (100-150 yards) allow longer rest (2-3 minutes), because the emphasis is to maintain speed.

Shift to more endurance as you run longer distances, so for 20-30 second sprints the rest should be 3-4 times as long. You might finish some workouts with 30-40 second sprints with a rest that is 2-3 times as long. These mimic your shifts on the ice in games and not only build endurance, but help you recover between shifts.

After resting at least five minutes there should be more jumps and strength development. One-legged step-ups to a bench (sets of 20-30 each leg) require no weight equipment, and you can include squat jumps and one-legged squats.

Some days you would finish with hills or sprint endurance. But most days after resting 5-10 minutes High school players should finish in the weight room for twenty minutes of lower body strength training, emphasizing squats, lunges, hip sled or squat sled, along with abdominal, back, and groin muscles.

None of this seems real difficult when you're reading about it. However, intensity is the key ingredient. Actually, the more rest between sprints or jumps, the harder the workout, because the intensity stays very high.

This is very much like our goal for hockey games. Train at the speed you want to duplicate in games. Observe the speed in summer football practices that last up to six hours. Wind sprints done with little rest become nothing but a jog, and establish a comfort zone that is devastating in games. Practice with quality and speed and you'll be much more comfortable playing at that high speed when the games count!

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Coach Blatherwick is a true hockey expert. He holds a Ph.D in Sports Physiology, is level 4 advanced certified with USA Hockey and has worked in hockey circles for the better part of 25 years. Early in his career Coach Blatherwick spent significant time in the former Soviet Union where he learned the game of hockey from elite coaches and players. Upon return to the United States his focus was on teaching youth hockey and improving the skating skills of all the players he coached.

Coach Blatherwick has held coaching positions with the USA National Hockey Team and the Division I NCAA University of Minnesota. Jack helped write the current USA Hockey coaching manual (authoring the section on "Raising the comfort zone through Overspeed Training"). This knowledge led to one of the best books ever published on the topic of hockey (Over-speed - Skill Training for Hockey). While that book is out of print he has recently produced a DVD on skating skills and invaluable hockey techniques

