

Delaying the Push – Straightaways

By Susan Ellis

A wise person once said, "**Good things come to those who wait**". How true this is when applied to the push!

Delaying the push means waiting to push until the body is in the **optimum position to exert maximum force in to the ice** and you have created momentum in a forward and sideways direction. You must wait until your momentum has carried you almost to the point of instability before releasing the push.

During the initial part of the load, just after the skate has landed on the ice, the center of gravity or force in to the ice is on the heel. As you continue to glide forward, the weight (center of gravity) shifts forward and down while the ankle angle closes, moving the center of gravity forward towards the ball of the foot. The key is to wait to push until the weight is near the back part of the ball of the foot and the ankle has reached the power position before releasing the push.

A couple of key technical points must be considered here to ensure the body has enough time to shift the weight forward and to the side.

- 1) The skater must land the skate blade on the ice either on the flat of the blade or slightly toward the outside edge to ensure all of the weight is over the loading leg. If the skate lands on the ice on the inside edge, this reduces the amount of glide time and the skater is forced to push too early without having loaded the push.
- 2) The drive leg, the leg that has just finished its push, must recover from in back of the skater and not be thrust forward until the center of gravity has started its fall forward. One common error skaters make is to draw the recovering leg back in toward the gliding leg from the side, rather than allowing the leg to simply fall behind the gliding leg. A simple rule of thumb here is to let the leg fall behind so that the thigh is perpendicular to the ice and you can fit your fist through the gap between the back of the loading knee and the front of the driving knee.

These simple exercises will help give you the feeling of delay and waiting to push until the point of instability.

Exercise 1:

Start by standing with your feet together. Place your right foot one step back, toe pointing straight down to the ground. Now move your center of gravity forward by leaning your upper body forward. Keep leaning until you reach the point of instability and you lunge forward. Try not to bring your right foot forward to catch yourself until you absolutely must in order not to land flat on your face. That's the power of gravity.

Repeat the exercise noting the speed of the right leg as it moves forward to break your fall!

Repeat the exercise noting the extension of the back leg and foot!

As the body passes the point of stability there is an incredible increase in momentum of the body forward! The speed at which the body naturally accelerates the right leg is truly amazing. We want to access that acceleration and momentum when we skate.

Exercise 2:

Now do the same exercise but this time moving the weight forward and in to the inside part of the ball of the foot by closing the ankle angle until you reach the point of instability and the right foot lunges forward in approximately a 45° angle to break your fall.

Repeat the exercise noting the speed of the right leg! (Naturally) Try to duplicate that speed without reaching the point of instability; in other words, don't bend the ankle or let the weight come to the ball of the foot.

Repeat the exercise noting the extension of the back leg and foot! (Naturally)

When you bring your weight forward to the inside of the ball of the foot by compressing the ankle angle and then waiting to push until the moment just prior to the point of instability, you will create the most effective and efficient push. This will maximize both the body's momentum and force in the direction you want to go.

That acceleration of your body mass coupled with maximizing pressure into the ice will create the greatest speed and power!