

## **Transferring Power from Ball of Foot to Ice – The Ankle Snap**

By Susan Ellis

The November 2006 tip focused on transferring power hip to hip and the December 2006 tip was on transferring that power from the hip and glutes through to the ball of the foot. This month we will focus on completing the transfer of power through the ball of the foot to the ice to finish the push. As we have discussed in the past, the ball of the foot is the power center of the body. That is the sweet spot in the blade where you can deliver the longest and most powerful push. And bringing the weight to the ball of the foot allows for the super important component of forward momentum in to the push. If you have not yet read *Transferring Power Hip to Hip – November 2006* and *Transferring Power from Hip to Ball of Foot – December 2006*, I would suggest you do so now.



In all sport there are 8 key principles of motion that define how maximum power is achieved. One of the key principles is the sum of joint forces. That means all angles open to their full extension, including the ankle, and pressure is maintained throughout this action through the ball of the foot. It is the ball of the foot, which completes the pushing action as the ankle opens outward and very slightly downward. The more the ankle joint is closed at the start of the push, the more room it has to open at the end of the push, and the more snap can be delivered with the action. In long track the ankle can open with a more downward motion to finish through the toes because of the clap mechanism. In short track the motion must be more outward so the toe of the blade does not dig in to the ice.

Watch this video of Yoon-gy Kwak finishing his push through the ball of the foot. You will see his weight shift forward ahead of his pushing skate to load the pressure to the ball, and then you will see his ankle snap completely open at the finish of the push to deliver a powerful push.

[Click here to watch video](#)

Watch Robert Lawrence perform a great drill for learning the ankle snap on ice: It is easier when first learning the drill to face the boards and hold on very lightly with your finger tips for balance as you slide across.

Stand in a glide/recovery position.

Allow yourself to lean slightly.

Push off with a snap of your hips and knee and finish with an ankle snap, feeling the pressure on the ball of your foot all the way from start to finish of push.

Allow yourself to slide as far as possible across the ice before re-setting and starting again.

**IMPORTANT** – You must slide on the flat of your blade, NOT on an edge.

[Click here to watch video](#)

You can also do the above drill off ice holding on to a chair. Again start from a glide/recovery position, lean, jump to the side (and slightly forward) and drive off the ball of the foot as hard as you can and really feel the snap of the ankle. (The chair slides across as you drive off the pushing foot.)