

Moving Hips In to Push

By Susan Ellis

Before a recent Long Track camp someone asked me about Sven Kramer's technique. As I didn't have very good footage of him I looked at Ireen Wust who I was told does things similar to Sven. Wow! Really interesting things happening with her hips. Not only does she have great thigh drive directly under her chest, she also seemed to initiate her weight transfer much sooner than more traditional style skaters. This early weight transfer reduces the amount of time she spends gliding on the flat of her blade and puts pressure in to the ice much earlier than traditional style. Remember, it is pressure in to the ice that makes you go fast, not how long you can glide on the flat of your blade. Any time you spend on the flat is time spent without pressure and your speed drops. (I guess that's why I have never understood the 'Milwaukee Pause', where the skaters there seem to spend enormous amounts of time doing a drill where they pause for a long time right on top of the blade with no weight movement).

I have since obtained a video of Sven but will use Ireen as the subject here as she has even more hip movement than Sven (likely distance related).

In a more traditional style skating, a skater waits until they are in the glide / recovery position with the weight right on top of the flat of the blade to initiate the weight transfer to the side and forward. In watching Irene, she initiates the movement to the side and forward through her hips as soon as her recovery pushing skate leaves the ice. This movement alone creates pressure in to the ice immediately on from the heel. She continues to drive her hips both side and forward during the recovery to drive her weight towards the ball of the foot before she pushes. To initiate the press through the hips you need to scrunch and press the mid and lower abdominals over the pushing leg in toward the middle. It's like doing an abdominal crunch and moving the crunch sideways and forward.

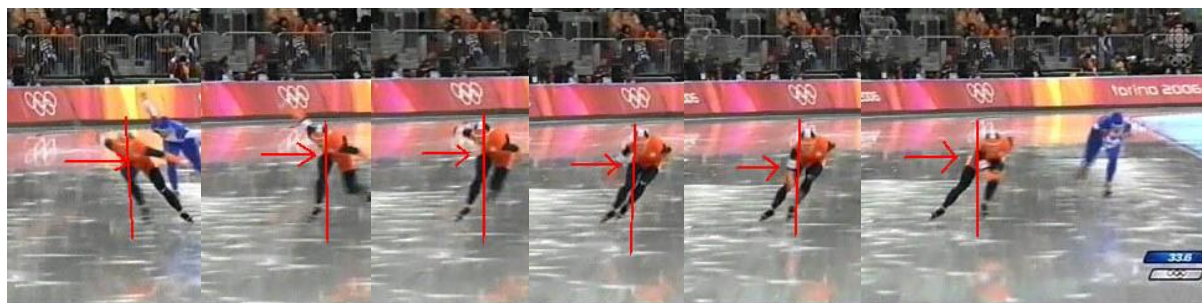
In introducing this technique to the athletes in my Milwaukee Christmas camp, I really thought the Eureka moment would be from feeling immediate pressure in to the ice. Although they could feel this, they got even more excited about the power they felt once they initiated the push, and they also felt like they had a smoother and longer push.

What I noticed most was the power through the hip right from initiation of push to end of push. It looked like they were able to really use every bit of power from their hip, whereas traditional style looked like there was a bit of hip extension left behind.

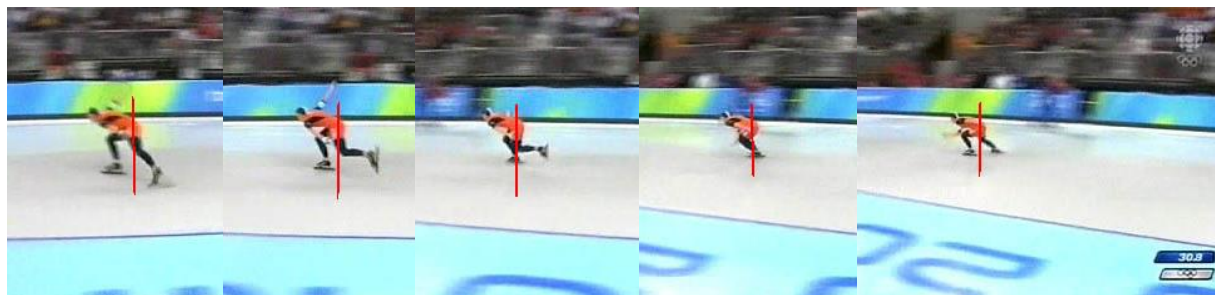
One of the keys to being able to complete through the hip is the ability to drive the recovery thigh directly under the chest, with no outward rotations, and holding the thigh up to the chest rather than stepping down toward the ice (dropping the thigh, early set down). This keeps both hips in a locked position so you can access the power from the hip muscles. (See Transferring Power Hip to Hip – November 2006 and Transferring Power from Hip to Ball of Foot – December 2006 for more on locking hips.) In analyzing Sven on the 5000m, he does come up slightly at the very end of his push (gives his

legs a bit of a break from the down position), but he then descends back in to position while driving his thigh directly under him again. In a few strides it even looked as if he drove his thigh up and under and then seemed to raise it to his chest even more as he initiated the push. This helps to delay set down of the recovery skate to get more extension from the pushing hip.

The video and photo series below shows Ireen initiating early with her hips. She pushes her loading hip in to the weight transfer to create early pressure. In the far right photo you see a more traditional style where the skater is waiting until she is on top of her blade to initiate side movement.



Not only does she create early pressure on her blade on the heel, she also maintains very good forward momentum as you can see from the photos and video below. Look at how the red line passing through her hips to the ice moves forward as she loads in to her next push. It starts off in back of her loading skate, progressing to the ball of her foot in the fully loaded position (#4), and continues to move ahead during the push.



Tune in next month to find out how moving the right hip in to the push can add pressure and power to the corner lay in.