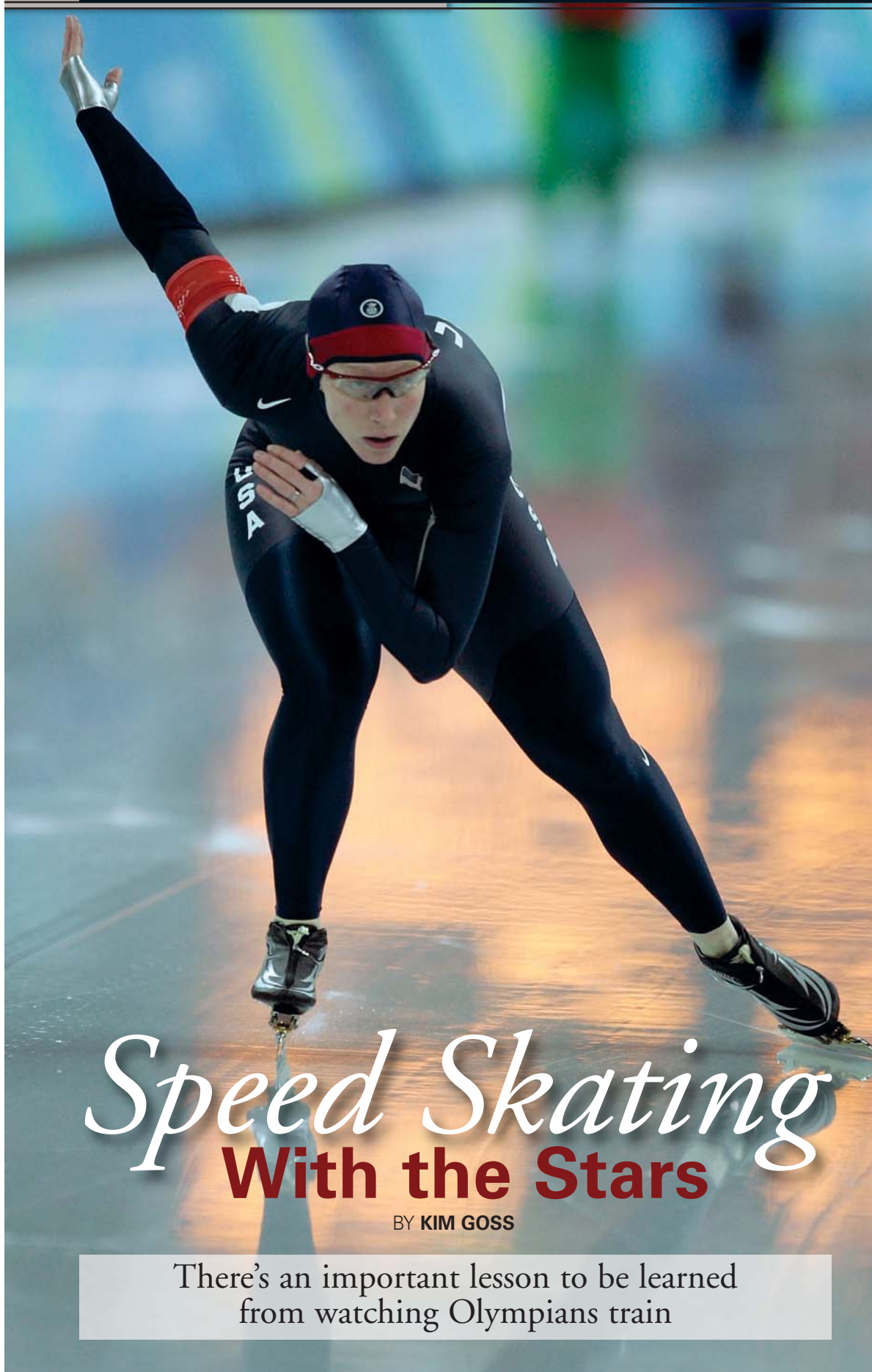




Action photos courtesy US Speedskating

Olympic Champion and World Record holder Chris Witty has competed in five Olympics, four in speed skating and one in cycling. Her popularity led her to being selected as the flag bearer for the USTeam during the opening ceremonies of the 2006 Games.

# *Speed Skating* **With the Stars**

BY KIM GOSS

There's an important lesson to be learned  
from watching Olympians train



What with the popularity of aerobic equipment and selectorized weight machines, often it's difficult for hard-core athletes to find a place to train. One sanctuary for these athletes is the Edge Conditioning Center in Salt Lake City, Utah, which was featured in our May 2005 issue. Because of its assortment of lifting platforms, squat racks, plyo boxes and other athletic essentials, the Edge often attracts some exciting visitors. Among them this summer were several top-caliber speed skaters, one from the US and two from Holland.

The most recognizable in this group was former Olympic champion and world record holder Chris Witty, whose popularity led to her selection as flag bearer for the 2006 US Olympic Team. Witty has competed in four Olympics for speed skating (1994, 1998, 2002 and 2008) and in one for cycling (2000). She was joined by two-time Olympian Marieke Wijsman and by Frouke Oonk, who has competed in the world championships.

Fortunately, I had the official BFS digital camera with me; so I took the opportunity to capture some photos of their secret dry-land training program.

At the start of their workout I saw them performing power cleans for explosiveness, and exhibiting the type of solid technique that suggests they all had some quality coaching on this lift. Then I saw them perform the parallel squat, again with good technique. After several more of these types of core lifts, I did see them practicing some sort of Cirque du Soleil balance exercise on an air disc. So, that's the big "secret": total body lifts and hard work?

The workout did get a bit more interesting, however, when I saw them intrigued with the Edge's BFS Plyo Ramp. Before getting into that, let's look at the traditional alternative to the plyo ramp, the slideboard.

The slideboard has been a mainstay in the training of speed skaters for decades. The slideboard is, quite simply, a board with a slick surface. Most slideboards are about eight feet long and two feet wide, and they have a two-inch-tall "stopper" at each end to push off from and break the momentum at the end of your slide. For maximum slide, the user wears wool socks or special "booties"



and may cover the surface with a light coat of wax.

Popularized by 1980 Olympic champ Eric Heiden, who won an unprecedented five gold medals in one Games, the slideboard has long been a major training tool for speed skaters. It also has been touted as a rehabilitation tool and a way to increase lateral speed. In fact, when I was a strength coach at the Air Force Academy, we had several available for our teams. The only problem with the device is that it rips the knees apart, literally.

As you slide across a slideboard, you have to stop at the ends. Because of the angle of the foot, the knee joint receives a lot of lateral *shear force* that tries to pry the joint apart when the athlete stops. According to the late sport scientist Dr. Mel Siff, "...the resulting torque can damage ligaments, capsule and inner structures of the knee." In fact, Siff said that the muscles of the trunk are the primary muscles responsible for movement here, not the legs, and that EMG studies by a coach in Finland showed that slideboard training was not specific to the activities that occur in skating.

As Chris and her workout partners tried the plyo ramp exercise, I had a chance to talk to Chris about how it compared to the slideboard. She said that the slant of the side footboards on the ramp seemed to place less stress on the knees than the slideboard does, and the reduced stress encouraged



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her to lift her knees higher as she drove off the side. (In my failed experience with speed skating last year, which had me fighting for my life continually trying to outrace a spunky 8-year-old girl, I found that when you get tired or lazy, you tend to neglect this aspect of the technique.)

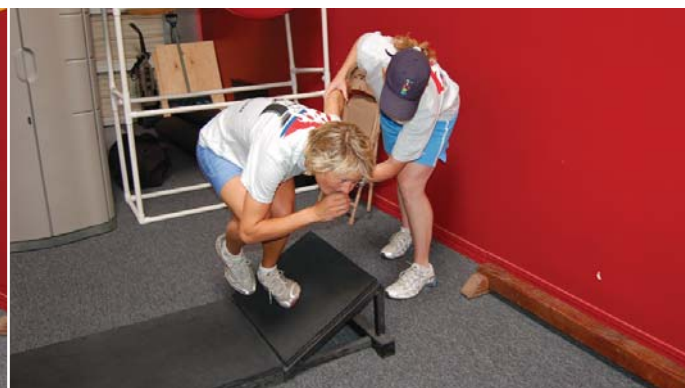
Chris also said that it's easy to get lazy doing slideboard training because momentum helps you across, whereas the only way you're going to get across a plyo ramp is to jump – and jump hard. And Chris liked the way she could easily and effectively stretch her calves when she stood on the ramp's side footboards. In

other words, she liked it.

I realize that not many of our readers are speed skaters, but watching these great athletes train reinforced for me the importance of working hard and staying with the basics. I, along with the entire BFS staff, wish these athletes continued success. **BFS**



The power clean develops explosiveness for all aspects of speed skating, especially the start. Being coached by Witty is two-time Olympian Marieke Wijsman. Looking on is her teammate Frouke Oonk, who has competed in the world championships.



The design of the plyo ramp enables skaters to perform a sport specific exercise with minimal stress on the ankles and knees. Wijsman shows great technique on this exercise as she is coached by Witty.



You've got to have strong quads to be a top speed skater, and nothing beats the squat. Oonk shows good form as she is carefully spotted by Witty and Wijsman.



"Big Dave" Marchant, manager of the Edge Conditioning Center in Salt Lake City, says he is honored to have such elite athletes training at his gym.