

## Nutrition

One of the foundations of quality training and staying healthy and injury free is good nutrition. Good nutrition involves more than just food - it involves an awareness of how food, fluids and timing impact our ability to train, recover, heal, adapt and perform. No doubt about it - food is fuel!

### Nutrition for skaters

Figure skating is a combined power and endurance sport, no matter which branch you are involved in. All skaters need an adequate energy intake in order to perform. However, "carbo-loading" (eating a large amount of starches such as potatoes or pasta prior to exercise or competition) is not a good idea. Doing so will cause your insulin levels to skyrocket and then plunge, which can be detrimental to performance. A more practical approach is a moderate carbohydrate meal with a moderate glycemic load (whole grains or fruits/veggies instead of white pasta), balanced with a good source of lean protein, and a reasonable bit of fat (too much can make you feel sluggish and "heavy").

To be able to perform high jumps, skaters must be able to call upon their leg muscles to create a sudden burst of energy. For this, they need to have a good source of muscle *glycogen* and *phosphocreatine*. Physiological jargon aside, this means that it is especially important for skaters who compete in freestyle or pair skating to have adequate protein intake, for practices *and* competitions. (Certain amino acids are necessary for the body to manufacture creatine.) Even though there is much less jumping in ice dance and synchronized skating, protein is equally necessary for participants in these branches. The general requirement for even power athletes, however, is around 10-15% of caloric intake from protein; much more than that, and you are crowding out more clean-burning carbohydrate energy sources.

Again I will emphasize that some fat in the diet is also essential, so make sure your pre-competition meals are not totally "fat-free." They should be geared toward ensuring proper blood sugar levels during performance, which means carbohydrates a low- to moderate glycemic index with a decent source of lean protein. It's a good idea to eat your pre-competition meal at least three to four hours before you are scheduled to take the ice. After practice or competition, the key is to eat a high-glycemic meal with ample carbohydrate to replenish your glycogen stores.

When on-ice practices are held at odd hours, timing meals can be difficult. If your practices are late at night, you've probably already had dinner, so you know you do have some energy stored. However, you might want to think about eating another snack or very small meal a few hours before practice, depending on the timing of your dinner and how late your training will go. If you have trouble exercising on a full stomach, a liquid meal (such as a shake or soup) is a better idea than a full steak dinner. Always be sure your meals contain a modest amount of protein and low-glycemic carbohydrates such as non-starchy vegetables. (I don't care what the USDA food pyramid says; botanically potatoes may be a vegetable, but when it comes to macronutrient content, they're a lot closer to pasta than broccoli.)

Early mornings are a bit harder, though. Many skaters want to delay the wake-up hour as much as possible, and eating breakfast takes up precious sleep time. (Hey, at four a.m., even "five more minutes" can make a big difference!) But it's important to eat and drink something before hitting the ice. You need to be

fuelled and hydrated in order to put your best efforts into training... otherwise, your waking up before the sun is all for naught.

Okay... you've heard why you need to eat before you train. So what do you do when your time is limited?

### **Shake it up**

Quick and convenient, a shake in the morning helps hydrate you right before a training session, and doesn't leave you feeling "heavy" (the reason that many skaters complain that they can't eat right before training). It's quick and easy to make your own shakes at home using protein powder, milk or soy milk, or yogurt, and adding in some fresh fruit of your own choosing. Barring that, there are many commercial brands of shakes out there, including:

A typical breakfast for a figure skater should consist of cereal and milk and a piece of fruit, followed with a lot of small meals all day. Any athlete --skaters, or otherwise, for instance --who is practicing two or three hours a day may require 4,000 calories, while a non athlete may not need half that many. An athlete who is active burns up the calories really quickly.

The objective is getting enough to eat, You need vitamins, and if you don't get enough calcium for instance, there is chance of stress fractures and slower healing of bones. With low calorie intakes, iron and zinc are particularly low. The skaters feel sluggish and have lower aerobic capacity. They are more prone to injury. There is no need to deprive yourself.

Figure skaters and other athletes should replenish calories after performing or practicing, whether they feel like eating or not. Spacing meals is important, as well. If an athlete starts to tire out midway through a game or competition, it's probably due to little nutrition.

Nutrition and physical training are connected. In order to maintain optimal hydration status and the onset of fatigue, the athlete must be properly fuelled; and this will enable him/her to train longer. Also, although the stress of exercise training stimulates physiological improvement, adaptations to physical stress actually occur in the recovery period following the exercise sessions. Satisfying an athlete's needs for refuelling, and rest are essential components of the recovery process.