

# Off-Ice Training For Figure Skaters – Why, What, When, and How?

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She has created sport specific strength and conditioning DVDs for figure skaters of all levels, a training manual, and various reports to educate the skating world about proper off-ice training techniques.

Off-ice training is a much buzzed about topic in the world of figure skating. Many skaters do it, many coaches and trainers teach it, but do people really know how the details of how it should be done, and what it really is?

A parent may see an ad for an off-ice class and sign up for it per recommendations of the skater's coach, yet does that parent really know what the skater is doing in that class?

After reading this article, you will have a better understanding of the proper forms of exercise, how often exercise should be done, who should instruct the exercise, and why off-ice training exercises are important.

## **WHY should a skater do exercises off-ice?**

Figure skating is a sport that puts significant strength and flexibility demands on the body. Athletes in other sports may say that figure skating is not a 'sport', and

it is more artistic performance, but they are quite wrong!

Skaters are some of the strongest athletes in the world. I can recall a Sports Physical Therapy class I attended in college in which a strength and conditioning coach took us through some difficult training exercises.

Out of 45 or so people, I was the only one who could do a one-legged squat! His response was, "Oh, of course, you're the figure skater."

Some skaters have natural strength, balance, and core strength that will take them through the lower levels of skating quickly, but the majority of skaters need to improve upon each of those attributes in order to progress to higher levels.

Once the 'naturally talented' skaters reach a level at which double jumps and difficult spins are required, that natural ability will only take them so far.

A skater's core strength and plyometric strength requirements in the sport of figure skating are significant, and at some point, a skater needs to build strength beyond what he or she naturally has.

By completing an off-ice training program at least twice a week, skaters will progress their on-ice skills at a faster pace, and be able to handle the strength demands of jumping, spinning, and longer programs.

Checking out of a jump involves the contraction of the muscles in the abdominals and the lower back, to resist the rotational force of the jump.

Without core stability, a skater will have difficulty maintaining the body over the skate and continue turning past the landing point.

Also, to achieve the correct height to perform a jump, a skater requires significant plyometric strength throughout the lower extremity, especially the quads and gluteal muscles.

This can only be gained with functional and plyometric strengthening off of the ice. Here are some examples of the attributes a skater needs to succeed in the sport of figure skating....

### **1) Core strength and stability**

Core strength originates from the abdominal and back muscles. These muscles work together to act as a 'control center' for the body's balance and stability.

In the sport of figure skating, skaters need exceptionally strong core muscles to maintain balance, check rotation and maintain a tight air position for jumping, control the center of spin rotation, and control the upper body position during footwork, stroking, and crossovers.

A skater has to have a strong core to complete double jumps and beyond. Without sufficient core strength, a skater would not maintain consistency of these elements.

### **2) Balance**

Think about how much of skating is done on one foot: almost everything! Some people are blessed with natural balance, but the majority of us need improvement through exercises.

There are several factors which affect the sense of balance in our body. First, our vestibular system (the inner ear) helps us sense the body's position while we are moving.

Second, the eyes help us detect our surroundings. Third, and most important for skaters, the balance receptors in our feet and lower extremities tell us where our bodies are in relation to the ground.

### **3) Strength and power**

Without muscle strength, a skater would skate very slowly, have small jumps, have shorter and slower spins, and would tire easily in a program and in practice sessions.

Strength creates power and can improve endurance, and is the number one necessity for a skater to improve and become consistent.

Through exercise, a muscle's fibers become tighter and stronger, and can withstand more repetition for longer durations when asked to contract.

Increases in strength can correlate with higher jumps, more stable landings, increased energy output, and increased ability to maintain a number of the spin variations required in the IJS.

### **4) Flexibility**

Spirals, biellmans, donut spins, split jumps, spread eagles, etc. are elements that require extraordinary flexibility. Yet it may surprise you, which basic elements require a certain muscle length to be performed correctly.

Muscle flexibility controls the angle of the knee, hip, and ankle joint on a jump take-off and landing, and a small deficit in muscle length can affect the quality of a jump.

Joint position and motion, controlled by the surrounding muscle length, also affects the angle of the joints in the lower extremity during basic stroking, cross-overs, spins, and footwork.

Each joint in your body needs a balance of flexibility on all sides to move in the proper range of motion. If there is an imbalance of muscle length, a skater may be more prone to injury.

### **WHAT kind of exercise should a skater be doing?**

In the past ten years or so, sports training has progressed from solely using weight machines to using an athlete's body weight as resistance in exercise.

Many functional exercises incorporate the use of several muscle groups at one time, instead of exercises focusing on the contraction of a single muscle.

How is this more beneficial? In every sport, an athlete moves his or her body in various planes of movement, which require several muscles to co-contract at the same time.

Each joint requires the strength from several muscles to stabilize it for the action it performs. Functional exercises train the body in these planes of movement to mimic the motions performed in sports.

Many sports require a high degree of strength that an athlete may not have naturally; that strength needs to be created through additional training. Figure skating is no exception!

### **WHEN should a skater do off-ice training exercises?**

Each skater's training routine and requirements are different, depending on the skater's level, schedule, and goals. A national competitor may do off-ice training five days per week, as opposed to a recreational skater's program of one day a week.

It is recommended to complete two to four days of off-ice training per week, depending on your level. Even if you choose to complete an off-ice training routine per week, you will show gains in strength, flexibility, and on-ice consistency.

You take your training into your own hands, and control your own progress. You can find sample off-ice training periodization schedules through [www.usfigureskating.org](http://www.usfigureskating.org) or in the Sk8Strong Off-ice Training for Figure Skaters Manual.

### **HOW do I start an off-ice training program?**

There are several resources available to guide you through an off-ice training program specific for figure skaters. Sk8Strong has produced DVDs specific to each level of skater, and there are several off-ice training manuals in circulation.

It is always recommended to consult with a health professional to evaluate the need for certain exercises and determine if a skater is using proper technique. If you are working with a trainer, make sure that the person has a degree in a health related field, ideally a physical therapy degree.

There are also several respectable strength and conditioning certifications available from the NSCA and NASM, such as the 'Certified Strength and Conditioning Specialist' and 'Performance Enhancement Specialist' designations.

It is important to work with someone qualified, to avoid injury and receive the maximum benefit from your training.