

Behind the Scenes at the U.S. Figure Skating Championships

By Robert S. Gray, MS, ATC

It's January, and more than 250 figure skaters from around the United States are converging on the city of Cleveland for the 2009 U.S. Figure Skating Championships. This eight-day event features Olympic-style competition in three divisions: Senior, Junior and Novice. The culmination of this event is selection of the United States World Team.

Here to treat overuse injuries, colds

The skaters attending this event have logged hundreds of hours of practice, and often thousands of dollars on lessons, equipment, clothing and travel. Because of the endless hours of practice and competition, some athletes are suffering from a variety of overuse and/or stress-related injuries. Others require treatment for conditions ranging from the common cold to potentially life-threatening emergencies – and everything in between.

With that in mind, Cleveland Clinic Sports Health is on hand to ensure the health and well-being of every skater, standing by to handle any situation that may arise for skaters, coaches and judges during the competition.

24/7 coverage by healthcare professionals

Cleveland Clinic Sports Health is responsible for the care of participants 24 hours a day, seven days a week during the event. Our medical personnel are based at three sites: the Renaissance Cleveland Hotel, the Hoover Arena in Strongsville, Ohio, and Quicken Loan Arena ("The Q") in downtown Cleveland, the host facility for the championships.

At each site, event participants can find a temporary medical facility/athletic training room staffed by Cleveland Clinic Sports Health. A primary care sports medicine physician or orthopaedic surgeon is always standing by with a registered nurse, physical therapist and certified athletic trainer. Many hours were dedicated to organization and scheduling of these facilities to ensure that each competitor feels confident in receiving the best medical care possible in the event of an injury or illness.



At rink-side and in the medical/training room

Our medical/athletic training rooms are open 30 minutes prior to the first event and close 30 minutes after the conclusion of the day's competition. Medical personnel are present in both the medical facility and rink-side during the skating competition. Because the incidence of injury is higher in the Pairs and Ice Dancing competitions, an ambulance is always on site during these events.

Along with medical services, both chiropractic and massage therapy are available to competitors.

Each facility is self-sufficient, and if necessary, an injured athlete can be transported to either our new Sports Health Center off I-480 at Transportation Boulevard or to the Cleveland Clinic main campus for additional care such as X-rays or laboratory services.

We at Cleveland Clinic Sports Health are dedicated to ensuring the safest possible environment and the swiftest medical response when needed for the competitive athlete.

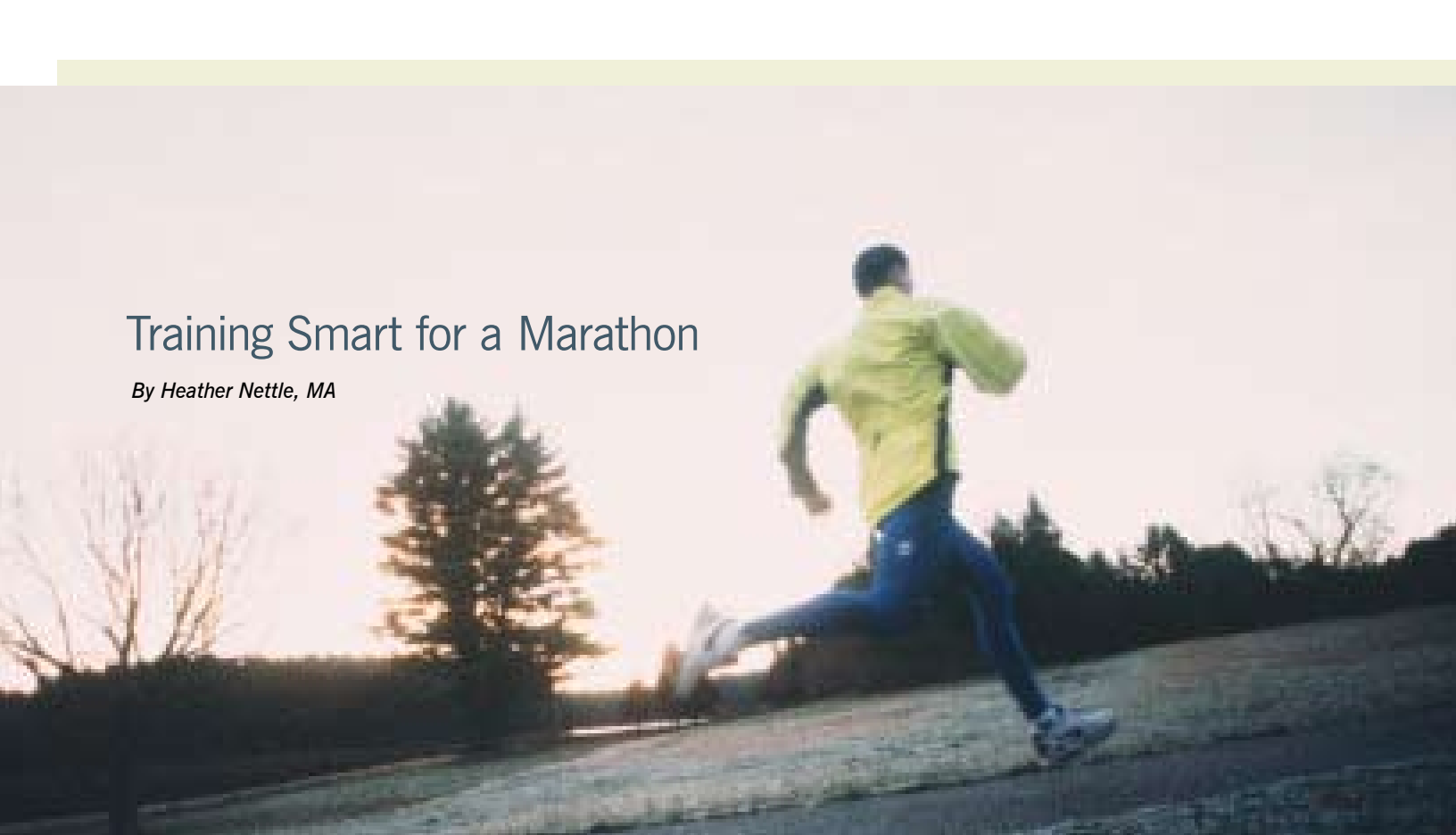
Bob Gray, MS, ATC, is Coordinator of Athletic Training Community Affairs for Cleveland Clinic Sports Health.

Same-Day Acute Injury Clinic

If you have an acute sports injury, call 877.440.TEAM (8326) to arrange for a same-day appointment.

Training Smart for a Marathon

By Heather Nettle, MA



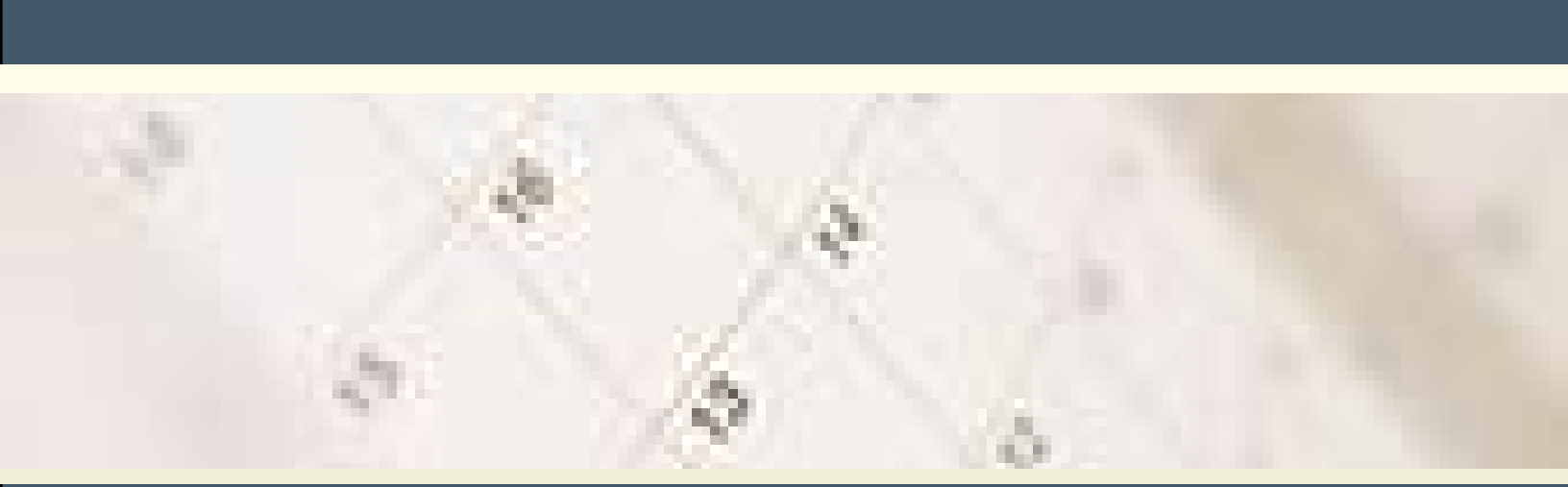
Food, sleep, training and planning can make all the difference

- 1.** Remember to prepare all year, even when you're training for just one big race. Your body will respond so much better to a year-round training program, broken down into off-season, pre-season, in-season and post-season periods.
- 2.** Mileage is not everything — it's what you do during each mile that counts. Plan a variety of running days, combining tempo runs, intervals, moderate long-duration runs and strides.
- 3.** Make strength training a constant in training, although the intensity of your lifting should vary throughout the year and as race day approaches.
- 4.** Diet is critical. Food is an ergogenic aid. The timing of meals, what you eat and hydrating yourself can be just as important to athletic performance as the training itself.

The decision to train for a marathon should not be taken lightly. The tremendous physiological stress associated with the race itself, plus the requisite training involved, can cause the body unnecessary and severe strain if a runner is not properly conditioned.

Proper training and preparation for a marathon can be a rewarding and exalting experience. Poor training and inadequate preparation can, conversely, make the experience miserable, and result in chronic injury, immunosuppression, anxiety, overtraining and poor athletic performance.

In the months prior to the race, preparation depends on your current fitness level, current mileage, age, injuries and willingness to commit time to training.



Beginning runners. We do not recommend beginning a marathon training program any sooner than six months beforehand – even if you are young, fit, dedicated and injury-free.

Veteran runners. The length of preparation depends on your current fitness routine. If you have been consistently active for more than a year, have a high level of fitness and already have at least a moderate base mileage established, then training can be accomplished in less than six months.

Advanced runners. Chances are that your base fitness is already established, and you can begin preseason training during the three or so months prior to the race.

In the weeks prior to a race, if you've done your training properly, your body will be ready for the event, and injuries, fatigue and anxiety will not be issues.

Mileage. Take your last long run three weeks prior to the marathon; it takes that long to resolve training-induced muscle damage. Adding in one more long run after that is a recipe for disaster – any gain will be minimal and you may suffer from “dead legs” during the event. Reduce your mileage two weeks before the race by 25 percent per week. Then, the week before the race, cut that mileage in half. Deconditioning will not occur during your taper.

Strength training. Taper strength training off during the last four months of training. For the final six to eight weeks, do only calisthenics, ball exercises, Pilates or bands with minimal external resistance. Avoid strength training the week of the event.

Sleep. Extra sleep prior to the race is critical; your body will really appreciate it. Even if nervousness precludes sleep the night before the marathon, extra sleep over the preceding week will make up for it.

Diet. Eat foods rich in complex carbohydrates and focus on hydration.

Let it go. Although this is the time when doubts typically arise – “Have I trained enough?”— you can't make up training in the last two weeks. Let your worries go and have confidence that you have prepared enough and will excel in your event.

In the days prior to the race, follow these detailed guidelines:

- Lay out the clothing that you will wear. Do not choose a new outfit for the race — 26.2 miles is a long way to run when something chafes, and clothing tags can quickly become painful adversaries!
- Don't buy new shoes for the marathon. Wear a pair that you have worn during a few long runs.
- Be prepared for anything! Fill a gym bag with essentials: a dry shirt, an extra pair of socks, tissue (you never know when the porta-john's supply will run out), extra shoelaces, gloves, hat, Vaseline or another lubricant, extra safety pins, blister care products and anything else you can't live without.
- Make sure to pick up your race number early, if possible. You'll avoid spending hours on your feet at the race expo.
- Don't eat too late at night, and make sure you're well-hydrated.
- Plan when to leave for the race, how to get there and where to park. You don't want to get lost.
- If you couldn't tolerate the electrolyte drink that will be used during the race while training, plan on another source of calories, such as gel packets or gummy bears. Carry a water bottle or “camel back” filled with water and/or your favorite replacement drink. Friends along the course may be able to restock your supply.
- Try fluid and gel supplements prior to event day. Even small variations in sugar concentration can cause upset stomachs and cause diarrhea during an event.
- Review the course map; know where water stops, aid stations and porta-johns are located.
- Check pollution levels at the course. Pollution negatively impacts performance and can exacerbate allergies and asthma. If levels of pollutants are high, plan ahead. Minimize your exposure on the way to the race, and warm up in a very well-ventilated area such as a waterfront, or indoors. Avoid warming up around tall buildings and heavy traffic.

Heather Nettle, MA, is Coordinator of Exercise Physiology Services at Cleveland Clinic Sports Health and works with all levels of runners through our Run Smart Performance Enhancement Program.

MYTHBUSTER

By Carolyn V Snyder, MPH, RD, LD

MYTH: You should only drink liquids on the day of a race.

FACT: You need to eat 2 to 4 grams of carbohydrate (8 to 16 calories) per kilogram of body weight, two to four hours before the start of a race, to replenish internal glycogen stores (needed for short-term energy). These were depleted while you slept, and fasted, overnight.



What to Eat and Drink on Race Day

We all become dehydrated during sleep, so it's critical to drink 20 ounces of water two to four hours before a race and to sip 10 ounces of water 10 to 20 minutes before the race begins.

But carbohydrates and sodium are other important nutrients needed during competition, so at least 80 percent of the calories you consume in a pre-race meal should come from carbohydrates. Keep protein, and especially fat and fiber, consumption low.

Here are some choices of excellent foods to consume before a race:

Bagel. This is an excellent pre-race breakfast food. Bagels are high in carbohydrate, bland and easily digested. Eat one dry or top it with reduced-fat cream cheese.

Banana. One large banana contains more than 30 grams of carbohydrate, just 1 gram of protein and no fat. Plus, it is high in potassium – containing 400 mg – which you lose in sweat while running. Their softness and light taste make them easy to eat, and their natural “wrapper” makes them portable!

Energy Bar. Bars such as PowerBar® and CLIF Bar® are made to eat before exercise. Most are very high in carbohydrates and low in fiber, fat and protein. The better bars also contain useful amounts of sodium, potassium and the antioxidant vitamins, C and E. (Avoid the high-protein, low-carb bars.)

Oatmeal. Almost pure carbohydrate, oatmeal is soft, light in taste and filling.

Meal Replacement Drinks. A liquid meal, such as a breakfast shake, is another good choice – as long as it's high in carbohydrate and low in protein, fat and fiber.

As with your pre-race dinner, once you've settled upon a pre-race breakfast that works for you, stay with it.

Carolyn Snyder is a registered, licensed dietitian specializing in sports nutrition.

'Pinning' Down a Healthy Weight for Wrestlers

By Carolyn Snyder, MPH, RD, LD

Meal skipping, excessively restricting daily food intake and even purging are typical of a wrestler's dietary habits to "make weight." These behaviors are not only detrimental to growth and development, but also to academic as well as athletic performance.

For optimal performance, wrestlers are urged to make weight with the lowest *sensible* weight and not in the lowest *permissible* weight class. Male high school athletes who are underweight — defined as having less than 7 percent body fat — can expect suboptimal performance.

A healthy meal plan for wrestlers involves a balanced diet that is low in fat, high in carbohydrates and moderate in protein. Be sure that you eat and drink before weight certification, to avoid becoming dehydrated. Ergogenic aids and non-therapeutic use of supplements for weight management are prohibited by the National Collegiate Athletic Association.

Below are some practical tips to safely "make weight."

Three to four days before weight certification:

- Drink plenty of calorie-free beverages – 8 to 10 glasses – all day long.
- Increase foods that are high in fiber (salad, cereal, vegetables and fruits) to help remove excess waste from the body.
- Eat smaller, more frequent meals.
- Avoid foods that are high in fat (French fries and other fried foods, meat, pizza, nuts, salad dressings).
- Avoid salty foods (potato chips, pretzels, pizza, tuna, crackers, soft drinks, sports drinks).

One day before weight certification:

- Keep drinking fluids until your urine is colorless. This means you are fully hydrated.
- Eat smaller meals that are higher in fiber more frequently, to eliminate excess waste from the body.
- Stay away from fatty foods and snacks – they take longer to digest and eliminate.

The day of weight certification:

- Eat small portions and a very light lunch if testing is in the afternoon.
- Eat light foods (fresh fruit, whole grains).
- Continue to drink water but avoid soda and sports drinks – their added salt may cause you to retain fluid.
- Urinate as often as possible prior to your weight certification time.

Year-round weight management

Weight management for wrestling must encompass safety, year-round training and healthy eating. Any program for weight gain or loss should:

- be started early to allow gradual weight gain or loss over a realistic time period
- permit a change of 1.5 percent or less of body weight per week
- allow weight loss to be fat loss and weight gain to be increased muscle mass
- be coupled with an appropriate strength and conditioning program
- incorporate a well-balanced diet with adequate energy (calories), carbohydrates, protein and fat
- never be started before 9th grade (for weight loss)
- maintain desired weight constantly and avoid weight fluctuations.

Carolyn Snyder is a registered, licensed dietitian specializing in sports nutrition.



Don't Let Asthma Sideline You

Your Primary Care Sports Physician Can Keep You in the Game



If you're an athlete with asthma, you're in good company. An estimated 20 percent of world-class athletes have asthma, including Olympic champion swimmers Dara Torres and Peter Vanderkaay, diver Greg Louganis, skater Kristi Yamaguchi and pro ball players Jerome Bettis and Dennis Rodman. With proper medication and conditioning, you can participate fully in sports, too.

Take a deep breath

Exercise-induced asthma (EIA) is caused by airways that are overly sensitive to temperature and humidity. Shortly after the start of exercise, people with EIA may experience wheezing, coughing, chest tightness, chest pain or shortness of breath.

The trigger is often cold, dry air. Normally, our nasal passages warm and moisten the air we breathe. During exercise, we tend to breathe through our mouths, so the air we inhale is colder and drier. Playing ice hockey or winter sports compounds the problem. In asthma, muscle bands in the airways react to the cold by spasming, which narrows the airway and causes symptoms. Upper respiratory infections can worsen asthma.

Relaxing the airways

Asthma medications can prevent these airway spasms. A short-acting beta-2 agonist (such as albuterol), inhaled 15 to 20 minutes before exercise, can prevent spasms for several hours. A long-acting bronchodilator will work for 12 hours. Long-term inhaled anti-inflammatory medications may also be required to "quiet" the airways.

Use common sense

You may not be in control of your environment during a game, but you can adapt the way you train by:

- breathing through a scarf to pre-warm the air
- avoiding exercising outdoors in frigid temperatures
- when you get a cold, waiting until you're better to resume practice
- helping your airways adjust with 10-minute warm-ups and cool-downs

In general, sports that require short, intermittent bursts of energy, such as football, baseball, wrestling, gymnastics and track, are easier on the airways than sports that require endurance, such as soccer, long-distance running and basketball. A warm, humid environment gives a "thumbs up" to swimming. However, athletes with asthma are found in all sports.

Gaining control takes teamwork

Gaining and maintaining optimal control over EIA often requires teamwork. A primary care sports medicine physician can help you keep your asthma well-controlled, so that exercise is less likely to trigger symptoms.

Cleveland Clinic primary care sports medicine physicians available to see you at our new Sports Health Center include Robert Dimeff, MD, Rick Figler, MD, Paul Gubanich, MD, Alfred Cianflocco, MD, and Susan Joy, MD. Along with Kelly Richter, MD, at Cleveland Clinic Strongsville, they can keep you active on the roster by managing chronic conditions such as asthma, diabetes, or hypertension.

For an appointment, call 877.440.TEAM (8326).

Competitive Edge

Competitive Edge offers active individuals, athletes, coaches and athletes' parents updates from Cleveland Clinic Sports Health professionals on nutrition, health and injury prevention.

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The information contained in *Competitive Edge* is for educational purposes only and should not be relied upon as medical advice. It has not been designed to replace a physician's medical assessment and medical judgment.

For a tour of the new Cleveland Clinic Sports Health Complex just off I-480 in Garfield Heights, please contact Marketing Coordinator Mary Jindra at jindram@ccf.org.

Home Gym Hang-Up

The muscles of the lower back are part of the “core” muscles in your trunk. They often go unnoticed because so much attention is paid to the abdominal muscles. Yet the lower back muscles need to be strengthened along with the abdominals. This helps with muscle balance and postural stability, and in some cases can reduce or eliminate back pain.

Besides strengthening the lower back, the Deadlift exercise below strengthens the lower body muscles. Its multi-joint movements are important in a complete strength-training regimen and translate well to everyday activities. The Deadlift is shown in basic form for beginners and in alternative forms for the advanced exerciser.

DEADLIFT:

Stand with feet shoulder-width apart, legs straight. From a standing position, holding dumbbells or a barbell, slowly bend forward, keeping back straight. Stop when your torso is parallel to the ground. Pause, and then slowly return to starting position. Repeat 10 times per set for two to three sets.

BEGINNER

1



2



3



ONE-LEG DEADLIFT:

Start in the same position as the basic deadlift. As you bend forward, extend one leg behind you. Keeping your back straight, return to starting position. Repeat 10 times for one set, and then repeat with the opposite leg, for two to three sets.

INTERMEDIATE

1



2



3



STABILITY DEADLIFT:

Perform a basic deadlift using proper form, while standing on an exercise dome or balance disc. Repeat 10 times per set for two to three sets.

ADVANCED

1



2



3



Elizabeth Sprogis, MA, and Kathleen Koch, MS, Exercise Physiologists

Exercise dome: The exercise dome featured in this workout helps improve muscular stability. Once a basic comfort level is established, many standard strength exercises can be performed while standing on the dome. Adding instability by using a dome or balance disc increases muscle utilization and coordination, producing greater functional strength for everyday activities and sports.

Disclaimer: Always check with your doctor before starting a new exercise routine or increasing its intensity. If you experience pain while doing these or other exercises, stop immediately and contact your physician.



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Sports Health Competitive Edge

A newsletter for athletes, coaches, parents and active individuals | Winter 08-09



Find Seamless Care Under One Roof at Our New Sports Health Center

Whether you've got a break, tear, sprain or strain, you'll find expert evaluation, medical care, surgery and rehab under one roof at the new Cleveland Clinic Sports Health Center.

Conveniently located off I-480, at 5555 Transportation Boulevard in Garfield Heights, it is staffed by sports health primary care physicians and orthopaedic surgeons from the program ranked 3rd in the nation by *U.S. News & World Report*. The center's six outpatient surgery suites are state-of-the-art. Imaging is done on-site and includes a large-bore MRI for maximum patient comfort.

The center's sports physical therapists, athletic trainers and exercise physiologists use state-of-the-art rehabilitation and conditioning equipment, including an aquatic therapy pool. Our popular Sports Performance Programs are also offered on site.

Many Convenient Locations to Serve You

Comprehensive sports health and rehabilitation services are offered at Cleveland Clinic's main campus and at many community locations, including Beachwood, Brunswick, Euclid, Independence, Solon, Strongsville, Westlake, Willoughby Hills, and now Mentor. Our new, nearly 8,000-square-foot Mentor facility is located at 7533 Center Street, at the intersection of routes 20 and 615.

877.440.TEAM (8326)
sports-health.org

For expert advice on how to handle your sports injury, or for an appointment at any location, call our toll-free number or visit us on the web.

Same-Day Acute Injury Clinic

If you have an acute sports injury, call 877.440.TEAM (8326) to arrange for a same-day appointment.