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**THEME: FITNESS ASSESSMENT
AND INJURY PREVENTION**

Getting a Professional Physical Fitness Assessment

by Matthew Percia; Shala Davis, Ph.D., FACSM; and Gregory Dwyer, Ph.D., FACSM



The importance of a fitness assessment is not only to help develop an appropriate, individualized exercise training program, but sometimes also includes screening for risk of heart disease and other chronic diseases. Every fitness assessment should include tests that can measure the five different components of health-related physical fitness including: body composition, cardiorespiratory fitness, flexibility, muscular strength and muscular endurance.

Components of a Fitness Assessment

Body composition is the relative proportion of fat and fat-free tissue in the body. The most common reason to test body composition is to assist in tracking the amount of weight, or

percent fat an individual loses over the course of the exercise program to achieve a desirable goal or target weight. Most research demonstrates that higher percentages of body fat increase the risk of chronic diseases such as coronary artery disease, diabetes and certain types of cancer. Body composition can be assessed in many ways including by taking skin fold or circumference measurements at different sites of the body.

Cardiorespiratory fitness (CRF) reflects the functional capabilities of the heart, lungs and muscles relative to the demands of the specific exercise such as in running or cycling. True measures of CRF require maximal exertion along with collection of expired gases. Since this may not be available at many fitness centers, simple step tests or sub-maximal treadmill or cycling tests can be used to predict aerobic capacity by taking exercise and recovery heart rates. In addition, resting values of heart rate and blood pressure are also taken. The results from CRF tests are used to determine specific intensities for cardiovascular exercises in a fitness or weight loss program.

Flexibility, referring to the degree to which a joint moves through a normal, pain-free range of motion, can be a determining factor in the performance of Activities of Daily Living (ADLs) as we age. A reduction in tissue elasticity and deterioration of joint anatomy with age has been shown to decrease flexibility and may lower the performance in ADLs, which can decrease quality of life. Because flexibility can vary joint to joint, there is no single test for overall flexibility. The sit-and-reach test is a commonly used test for assessment of flexibility of the hamstrings, hips and lower back.

Muscular strength and muscular endurance training can elicit benefits in increased strength, lean tissue mass, and bone density. Muscular strength can be assessed by using some sort of Repetition Maximum (1-RM, 5-RM or 10-RM) test on a variety of different exercises that involve major muscles groups. The bench press and squat are commonly used tests in assessing strength. The choice of test is based on the exerciser's experience and

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LEADING THE WAY

Letter from the Editor

by Dixie Thompson, Ph.D., FACSM

Welcome to the Spring 2010 edition of the ACSM Fit Society® Page Newsletter! As the year moves forward, I'd like to take a moment to thank those who make this newsletter possible: our editorial board and the wonderful writers who join us each quarter. You are very appreciated!

This issue is useful for exercisers new and old. Those beginning a physical activity program will find the fitness assessments section useful. Injury prevention is key for everyone, so you can stay healthy and maintain your physical activity routine. This issue includes general information on injury prevention as well as specific information on avoiding injuries to the shoulders and knees.

Enjoy – and don't forget to pass the newsletter on to family and friends!

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The Basics (continued from page 1)

ability. Muscular endurance testing might include timed tests, where the exerciser has to perform as many repetitions of a given movement as possible in a specific time period (i.e., 1 minute of curl-ups or push-ups). Results from both muscular strength and endurance tests can assist in recommending proper intensities and loads for strength training exercises.

Finding a Trainer

If you are a member at a fitness center, the facility likely has personal trainers qualified to conduct physical fitness assessments. Some fitness centers require their trainers to have a four-year degree from an accredited academic institution in a health-related field, such as exercise science or exercise physiology. In addition to this degree, a certification from a nationally accredited certifying body, such as the American College of Sports Medicine (ACSM), should be attained by the trainer,

which then qualifies that individual to assess physical fitness. Many certifying organizations have features on their Web sites – such as the ACSM Profinder service – that can be used to help locate certified fitness professionals.

In order for an individual to determine realistic short- and long-term fitness goals, it is important to establish a baseline levels of different aspects of health and fitness. This process can be intimidating, especially for those who are self-conscious about their appearance and/or unfamiliar with exercising. Find a fitness professional who is not only qualified to assess your fitness levels, but with whom you are comfortable sharing your goals and allowing to take your personal measurements (such as body composition) to help you achieve your desired outcome. Once baseline values have been determined, your certified fitness professional can use this information to develop a specific exercise

program to attain desired results. Your fitness professional will monitor your progress and periodically repeat these tests to track progress toward fitness goals.

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Q&A

by Anthony Luke, M.D., FACSM

Q: My child plays video games and doesn't exercise much. I'm worried he's putting on weight. Can newer video game systems help with fitness?

A: There are advantages to video games that use wireless controls, cycles or exercise mats during the game. Active video games can present an opportunity for additional energy expenditure, especially if the individual is not interested in traditional exercise. A randomized, controlled study assessing the effect of video game use in children and adults showed significant increase in the level of physical activity in the intervention group versus the control group who didn't play the interactive games. Studies demonstrate that interactive video games using wireless controls, special mats or even exercise-type equipment, such as a stationary bicycle, provide more energy expenditure than typical sedentary games. Games that use lower-extremity movement expended more energy than those using the upper extremities, but not to the same levels as real sports. There are also differences in energy expenditure depending on the video game's activities, such as boxing versus golf. It's important to remember, however, that these types of games seek generally to simulate – but not replace – conventional physical activity. It may be a great opportunity to motivate someone who is physically inactive, who may not be ready to participate in group sports, or to add further energy expenditure if video games will be played anyway.

Q: I'd like to exercise more, but I don't want to go to the gym. My favorite activity is to go outside for a walk. What's the best way to maximize my walking for fitness?

A: Walking is a great way for many people to exercise. It's easy, convenient, and economical. One way to help monitor your walking and assist in measuring fitness is using a pedometer or step counter. A pedometer can help an individual "keep score" of the amount of exercise, counting steps instead of calories. A baseline level of activity can be initially measured by averaging your daily number of steps over the course of four days. A rough estimate of activity suggests that 1,000 steps equals about 10 minutes of brisk walking. You can challenge yourself to increase your average score weekly or stay on a steady, consistent program. A highly active adult should walk at least 10,000 steps per day; children should walk at least 12,000 steps. Pedometers are typically inexpensive (\$40 or less) but look into their accuracy, as you want to make sure the step counts are good estimates. Another activity measurement option is an accelerometer, which is becoming more available as technology improves. Accelerometers are starting to be included in other devices, such as music players and cell phones. Some accelerometers can measure movement in three dimensions, which can give more information about non-linear activities, such as sports. If you want to keep things simple, use a pedometer – unless you're into gadgets, in which case you can take a look at the new accelerometers that are available.

Basic Injury Prevention Concepts

by Mary D. Nadelen, MA, ATC



For any individual who is physically active, there is a possibility of sustaining an injury. While some injuries, such as an ankle sprain or fracture, are difficult to prevent, many other injuries are preventable. By following a few simple guidelines, injuries such as muscle strains, tendonitis and overuse injuries can be reduced.

Every workout must begin with a warm-up and end with a cool-down. A warm-up is necessary to prepare the body for exercise by increasing heart rate and blood flow to working muscles. The warm-up should start slow and easy and consist of a general cardiovascular exercise such as walking, jogging or biking. The goal is to break a sweat. After five to 10 minutes, the warm-up should focus on muscles and movements more specific to the exercise activity planned. Creating a smooth transition from the warm-up to a specific activity is a great way to prevent injuries. For example, a soccer player could pass, dribble and shoot a ball; a weightlifter could lift light weights before moving onto greater resistance.

Flexibility is absolutely a part of every good warm-up. Once the muscles are warm, they become more elastic and are ready to be stretched. Whether you choose to perform static stretches (by holding each position for 10-30 seconds) or perform dynamic stretches (by moving the body through a functional range of motion) flexibility prepares the muscles, tendons and joints for work by

allowing them to move freely through a full active range of motion. The more prepared the body is, the less likely it is to get injured.

An area that often gets ignored is the cool-down after activity. Just as the warm-up prepares the body for work, the cool down brings it back to its normal state. Time spent performing five to 10 minutes of low-intensity cardiovascular activity followed by stretching immediately after the workout will decrease muscle soreness and aid in recovery, both helping to prepare the body for the next workout.

Once an exercise program is developed, there are a few things to remember. Start slow: people often jump right into a workout and do too much too fast, creating excessive muscle soreness and tightness. Proper progression is the key to preventing injuries. Slowly increase the amount of time of each workout, the intensity of the workout and the resistance of the weights. A 5-percent increase as the exercise becomes too easy is a safe progression. Exercise at a level that is appropriate for your age and your fitness level. A young athlete competing with older children may not be as physically strong, predisposing them to injury. The same can be true for a weekend warrior athlete who jumps into a game with athletes who have trained throughout the week. If equipment is involved in your exercise program, take the time to ensure you have the proper equipment, that it fits correctly and that it meets safety standards. Too often, old, faulty or improperly fitted equipment, such as footwear, mouth guards, helmets, goggles or shin pads, can cause injuries.

One of the best ways to prevent injury is to listen to the warning signs your body gives you. By ignoring little aches and pains in joints and muscles, a more serious injury could develop. Pain is the body's way of telling you something is not right! The common expression "no pain, no gain" creates a large misconception. It is very possible to make cardiovascular and strength gains in your workout routine without causing pain. If your body is tired or too sore from the previous workout, take a day off, cross-train or work out at a much lower intensity. It is important to add variety to every exercise routine to prevent repetitive, overuse injuries. By switching from running to biking, aerobics to weight lifting, or swimming to spinning, muscles and joints that are worked repetitively during your normal routine will get a break while challenging other parts of the body.

Rest is a critical component to any good workout routine and time spent allowing the body to recover is a great way to prevent

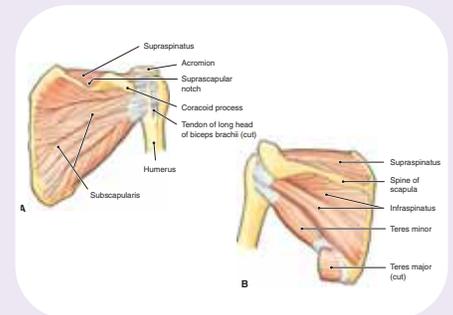
injuries. A rest day must occur at least one to two times per week. Even small breaks during a workout are sometimes required to get the most out of the workout and prevent injuries.

A healthy, well-balanced diet can aid in injury prevention as well. A poor diet can lead to muscle weakness, decreased muscle strength and endurance. Equally important is maintaining hydration throughout the day, during and after your workout. A body with adequate fuel (food and water) will stay sharp and keep moving at the intensity you desire.

Following the simple guidelines listed above will help keep you injury-free and focused on your workout goals.

Keeping Shoulders Strong and Healthy

by Jenny Moshak, MS, ATC, LAT, CSCS



The rotator cuff is made up of four muscles (supraspinatus, infraspinatus, subscapularis, teres minor) that cross the shoulder joint (glenohumeral). These four muscles originate on the shoulder blade (scapula) and insert as a tendon on the upper arm (humerus). As a group, the rotator cuff muscles perform the primary motions of internal and external rotation and assist the shoulder throughout the rest of its range of motion. The shoulder is a ball-and-socket joint. The ball (head of humerus) is twice the size of the shallow socket (glenoid fossa), creating a mobile-but-unstable joint. The rotator cuff plays an intricate roll in the stabilization of the shoulder by working with the labrum (a cartilaginous rim attached to the glenoid fossa that deepens the socket). The rotator cuff helps to hold down the ball portion of the joint in the deepest, widest area of the socket.

Shoulders (continued from page 3)

Increased stress is placed on the rotator cuff in overhead-throwing, action-type sports such as baseball, football, tennis and volleyball, and in overhead-overuse professions such as construction, hair styling, and painting. Strengthening the rotator cuff muscles can help reduce injury as well as improve performance.

Strengthening exercises for the rotator cuff

1. Swimmer's Exercises: Lie face down on a table or corner of a bed. Arms are hanging off the edge of the table. This exercise is broken down into four movements:
 - a. Draw your shoulder blades in to the center of your body (scapular retraction). This will bring your arms slightly off the table.
 - b. Externally rotate your arms—"stick-up" position.
 - c. Extend your arms overhead—officials indicating scored field goal position.
 - d. Hands behind head—"chillin' position"
 - e. Reverse the four movements back to starting position.

Perform three sets of 10 repetitions.



The only place the arm is actually attached (bones and ligaments) to the body is where the collar bone (clavicle) meets the breast bone (sternum) at the sternoclavicular (SC) joint. The design of the upper extremity allows for its main function, to bring food to the mouth. This main function requires a relationship and coordination between the SC joint, the rotator cuff, and the radial head/thumb.

2. Tubing with thumb involvement: Stand with a rolled towel, foam roller or even a football between your elbow and side of your body. Rest your elbow against the object so that it is in 60 degrees of flexion (in front of your body) and 60 degrees of abduction (away from the side of your body). Attach the tubing to a stationary object so that it is waist height.
 - a. Internal Rotation: Wrap the tubing around your hand and your thumb; make the tubing taut enough so that resistance is present throughout the range of motion. Start with your arm at the end range of external rotation (away from the body) and your hand/thumb in supination (palm up/"hitch hiking"). Pull the tubing in towards your body (internally rotate) and turn your palm downward (pronate) so that your thumb ends up pointing at your stomach. Perform three sets of 10-15 repetitions.



- b. External Rotation: Wrap the tubing around your hand and your thumb; make the tubing taut enough so that resistance is present throughout the range of motion. Start with your arm at the end range of internal rotation (against your stomach) with your palm facing down (pronation). Pull the tubing away from your body (externally rotate) and turn your palm upward (supination) so that your thumb ends up in the "hitch hiking" position. Perform three sets of 10-15 repetitions.



Shoulders (continued from page 4)

3. Pizza Pie: Stand holding light-weight plates (2.5-5 lbs.) in the palms of your hands.
- Start with the weights under your chin (as if “smelling” the pizza)
 - Keeping the weights at shoulder height, extend your arms in front of your body.
 - Maintaining the weights at shoulder height, move your arms out to the side of your body.
 - Bring your arms back in front of you. Bring the weights back under your chin (again as if “smelling” the pizza)

You are tracing a “T” in this exercise. Perform three sets of 10-12 repetitions.



Isolating the supraspinatus muscle can be beneficial in rotator cuff strengthening.

4. Empty Can: Stand holding light dumbbells (3-5 lbs.) at your side.
- Internally rotate your arms so that your thumbs are pointing to the floor.
 - Raise your arms at a 45-degree angle (the line between in front of your body and the side of your body) up to shoulder height.
 - Lower the weight to the starting position.

Perform three sets of 10 repetitions.



A healthy rotator cuff impacts the function of shoulder movement and stability. Understanding the physical design of the rotator cuff as it relates to body movement is important for maintaining strength, extending performance and preventing injury.

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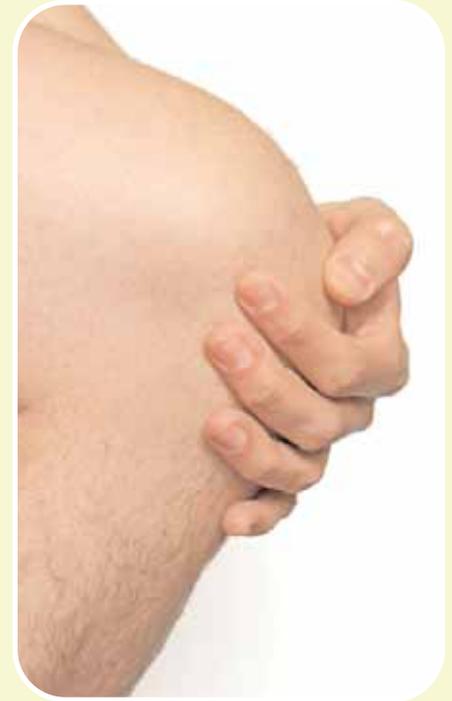
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THEME: FITNESS ASSESSMENT AND INJURY PREVENTION

Basic Knee Injury Prevention

by Laurie Tis, Ph.D., FACSM



Prevention of knee injuries, whether acute (knee ligament sprains) or chronic (knee tendonitis, bursitis, or the management of arthritis) is a frequent question to any fitness and health practitioner.

Regardless of the exercise program or the age or gender of the participant, there are key points that should be addressed. First, a flexibility program incorporated into an exercise program is usually a good start. Second, a strength program (regardless of your current muscle strength) will typically work to prevent injury. Third, it is important, based on your level of fitness, any other surrounding health issues, or other previous injuries or current injuries or health issues that the correct exercises are chosen, and when they are, that overtraining is avoided. Lastly, as all of these are considered, make sure to consider proper equipment and technique. When in doubt, consult health and fitness experts or a sports medicine physician.

The following recommendations are designed for knee injury prevention, not performance enhancement.

Flexibility of the Hip and Thigh Musculature

In any injury prevention program, flexibility or a stretching program of the surrounding muscles is crucial. The muscles most important for prevention of knee injuries are the hip and thigh muscles: the gluteals, hip adductors or groin muscles, and the knee flexors and extensors. There are countless stretching programs, but the basic guidelines of warming up prior to exercise still ring true: warm up until you “break a sweat,” stretch each muscle group two to three times, and stretch after activity for your cool down. Stretching does not improve performance but will work to prevent injury and, as a general rule, is an absolute must if you have sustained an injury. Flexibility declines with age, so it is best to incorporate and maintain early on, since flexibility can be difficult to regain.

Strengthening of the Hip, Thigh

As with any injury prevention program, strengthening of the muscles surrounding the knee is important. The muscles that should be the focus of a knee injury prevention program are the hip muscles: gluteus maximus or hip extensors; rectus femoris and iliopsoas or hip flexors; and the hip adductors. Also important are the knee joint, knee extensors (quadriceps group) and the knee flexors (hamstring group). Although these are the key muscles to focus on, many sources also recommend strength exercises for the lower-leg muscles such as the ankle plantarflexors and dorsiflexors.

To strengthen these areas, utilize weight machines or some other form of resistance exercise, such as sport cords or resistance tubing. Each exercise should focus on individual muscle groups and be performed in eight to 10 repetitions. Complete at least one set, increasing up to three sets, with at least 20 to 40 seconds of rest between each set. Focus on performing each exercise properly, not on doing a lot of exercise or lifting a great amount of weight.

Another second strength-training option is to use body-weight exercises such as squats, wall squats or lunges. These exercises can be done anywhere, require little space or equipment, and utilize multiple muscle groups. However, often maintaining proper form can be challenging, so use caution.

Avoid overtraining, regardless of activity choice

Overtraining is a concern with any activity, be it walking, running, swimming, or the plethora of other choices available to exercisers. The first step in avoiding knee overtraining is to choose your activity wisely

to ensure it's a good fit. For example, if you have many lower-leg problems, knee pain, or a history of back pain, a non-weight-bearing activity such as swimming may be a better choice than running. Then start slowly, with a day of rest between each exercise bout, and progress either by increasing the time of each exercise session or by adding a day of activity per week. For people who like variety, choosing different activities, often called cross-training, is a good option. Choose a weight-bearing and a non-weight-bearing activity and alternate workouts. Regardless of the activity, be sure to use proper technique, particularly in technique-intense sports such as speed walking or swimming, and always get instruction if needed.

Sport-specific tips

Many activities have equipment guidelines and recommendations, and these recommendations can change frequently. For example, running shoes should be replaced approximately every 300 miles. The shoes' shock absorption will typically not be adequate in the average runner after that mileage. Conversely, the use of walking or hiking poles has been shown to reduce impact and may be beneficial to walking or hiking, regardless of the terrain.

When in doubt, always check with a physician, fitness expert, or professional such as a physical therapist or certified athletic trainer to prevent an injury and ensure you are ready to begin your exercise program and prevent knee injury.

Rapid Weight Loss

by Nancy Clark, R.D., FACS M



When you want to lose weight quickly...

Some athletes, such as wrestlers or rowers trying to make weight for an event, need to lose weight quickly. Others, like my client who insisted that slow weight loss would not work for her, just want to lose weight quickly. “I know everyone says to lose weight slowly, but I want to get rid of this excess flab NOW,” she declared with disgust.

So what is the best way to lose weight quickly? Do you simply “starve yourself” by eating as little as possible? The answer depends on your long-term goals:

- If you want to lose weight quickly for an event and don't mind regaining the weight quickly, you can indeed “starve yourself” for a few days to drop to the desired number on the scale. Obviously, the better plan is to lose the weight pre-season, to minimize the agony and optimize performance.
- If you want to lose weight and keep it off for the rest of your life, don't even think about quick weight loss. It backfires.

Why “quick weight loss” is a fantasy

While the promise of quick weight loss is enticing, dieters who lose weight quickly on a severe diet inevitably regain the weight, if not more. That's because the body overcompensates for extreme dieting with overeating. You will never win the war against hunger!

Hunger is physiological. Just as your body needs to breathe, urinate and sleep, your body also needs to eat. Urges to overeat (that is, blow your diet) often have less to do with will power and more to do with the physiology of hunger. Just as you will gasp for air after

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having been trapped under-water without oxygen, you will devour food after having been denied calories during a crash diet. Yes, you can white-knuckle yourself to stick to your crash diet, but your well-meaning plan to quickly shed some pounds has a high likelihood of exploding into a demoralizing pattern of binge eating followed by yet another attempt to crash diet. Don't go there... it's depressing.

Tips for successful weight loss

To lose weight and keep it off, you must keep in perspective you did not gain the weight quickly and, therefore, and you should not plan to lose the weight quickly. The better plan is to chip away at slow but steady weight loss, targeting 1/2 to two pounds a week. Just by knocking off 100 calories at the end of the day (one cookie, one heaping spoonful of ice cream), you can theoretically lose 10 pounds a year. Knock off 200 calories at the end of the day (16 ounces of cola, four small cookies), and you've lost 20 pounds a year. By eliminating just a few hundred evening calories, you will lose weight when you are sleeping, not when you are training or trying to deal with the stresses of your busy day. Plan to eat your calories during the day, when they can help you the most. Then, diet (by eating just a little bit less) by night.

Tips for athletes who need to lose weight for an event

Wrestlers, rowers and figure skaters who need to shed pounds for an event generally try to eat as little as possible. They fail to understand they could reach their goals by eating more than air. If you eat less than 1,000 to 1,500 calories, your metabolism slows to compensate for the "famine." The less you eat, the more your body conserves:

- You will feel cold all the time, especially your hands and feet. Your body won't "waste calories" by keeping your extremities warm.
- You will feel lethargic and have little energy to (enjoy) exercise, to say nothing of performing well. Observe how you conserve precious calories by fidgeting less, moving minimally and doing less spontaneous activity than usual in the non-exercise parts of your day.
- Your resting metabolic rate can drop by as much as 20 percent. This conserves calories and slows weight loss.
- Weight loss might be half muscle, half fat. Losing muscle is counter-productive to athletic performance. (Be sure to lift weights and eat some protein with each meal to help reduce loss of muscle.)

Should you add on extra aerobic activity to burn calories and hasten fat loss, in addition to drastically reducing your diet? No. Research

suggests exercising while crash dieting does not result in additional weight loss as compared to crash dieting without exercise. Plus, you might end up injured and overtrained, to say nothing of fighting deeper hunger. That is, after grinding through an extra spin class to burn off 600 additional calories, you could quickly wipe out that calorie deficit in less than three minutes by succumbing to 12 small cookies the instant you get home. White-knuckling yourself away from food is not fun—and is not sustainable.

Instead of doing extra-hard training, plan to increase your non-training activity by walking more, doing projects, cleaning the house, playing with the kids and staying off the couch. Daily activity counts; keep moving during your waking hours so you do not become a "sedentary athlete."

You certainly should not eat less than your weight x10 calories per pound (your approximate resting metabolic rate—what your body requires to breathe, pump blood, and function). Targeting 13-15 calories per pound is still very restrictive for an athlete. That's about 2,000 to 2,200 calories if you weigh ~150 lbs. Alternative to counting calories, reduce your food portions by about 20-30 percent, depending on how much time you have to lose the weight. (A sports nutritionist can design a successful reducing plan for you. To find a local R.D., use the referral network at SCANdpg.org.)

Divide your limited calories, eating evenly sized meals on a timeline, at least every four hours throughout the day. That could be 500 calories at 7 a.m., 11 a.m., 3 p.m. (either a second lunch, or divide the calories into pre- and post-workout fuel) and 7 p.m. Spend your calories on wholesome foods that include protein (to help keep you from feeling hungry) and "bulky" foods like vegetables and broth soups that help fill your tummy with less calories than compact foods (burgers, fries).

Athletes who need to lose weight quickly often restrict fluids. One pound of water can be easier to lose than one pound of fat—but this option should be a last resort. Ideally, you should have planned ahead and lost the weight in the off-season! Do not sweat away more than 2 percent of your body weight. (That's three pounds of sweat for a 150-pound person.) More than that can hurt your performance and endanger your health. Hence, if you currently weigh 150 lbs. but need to be 140 in two weeks, you can reasonably lose about three pounds of sweat. You will then need to lose "only" seven pounds of fat, of which half will likely be muscle, if you crash diet.

The bottom line

Losing weight quickly is hard work. The smarter plan is to lose weight slowly and be able to keep it off for the wrestling, crew or other sport season—and the rest of your life. Although slow weight loss sounds less enticing, it is easier and sustainable! Do you really want to do suffer through a restrictive weight reduction diet, regain the weight, and then have to lose it again?

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Q&A (continued from page 2)

Q: I saw use of shoulder taping in beach volleyball during the Beijing Olympics. Does it really work?

A: Kinesiology taping has been available for more than 30 years. It's been more popular lately due to use by elite athletes and their physical therapists. An interesting session by the International Olympic Committee to the medical teams was presented by Raymonde Fortin, P.T., at the 2010 Vancouver Olympics. Taping ankles and other joints is common practice. There is good evidence that ankle taping and bracing reduce the incidence of ankle sprains. Kinesiology taping may have several benefits, including joint support and limiting range of motion, compression and improvement in lymphatic flow, and stimulation of the neuromuscular system (leading to better function and less pain). Some kinesiology tape simulates the skin's thickness, moisture permeability, elasticity and weight. The tape stretches mainly in one direction and there is a wave-pattern adhesive on the back, which allows moisture to escape and also gives different stimulation to the skin. However, this popular trend still lacks supportive evidence; the techniques and true benefits are presently being studied. Don't be surprised to see it, though, in more and more in sports settings while its effectiveness is determined, as it looks and feels "cool."