Without a doubt, what you eat and when you eat affects your athletic performance. A wisely selected sports diet can help you be stronger, train harder, and compete better. Use the following sports nutrition tips to help you eat to optimize your performance.

FUEL: The best foods to fuel your muscles are carbohydrates, either simple sugars (such as the naturally occurring sugars in fruits and juices) or complex carbohydrates (starchy foods, such as pasta, bread, rice, cereal, oatmeal, corn and other grains). These carbohydrates provide not only energy but also important vitamins and minerals. Refined sugars (such as in soft drinks, sports drinks and candy) also fuel muscles—but are nutrient-poor choices and lack vitamins that help your body’s engine run best.

Your muscles store only carbohydrates—not protein or fat—in a form of sugar called glycogen. During hard exercise, your muscles burn this glycogen for energy. When you deplete your glycogen stores, as can happen during repeated days of hard training and a low carbohydrate diet, you feel overwhelmingly exhausted. Eating high carbohydrate foods (cereal, pancakes, bread, fruit, vegetables, pasta, potato) on a daily basis can help you train harder and compete better.

Although protein is a poor source of fuel, a small serving of a protein-rich food at two meals per day (plus the protein in two or three cups of milk or yogurt) is important to build and repair muscles. The protein should be the accompaniment to the carb-based meal, not the main focus.

QUICK ENERGY: If you are hungry, tired, and craving a quick energy boost prior to exercise, you don’t have to eat sugar for energy. A simple snack of crackers, fruit, or a low fat granola bar can perk you up. Better yet, prevent the need for an energy boost! Simply eat a heartier breakfast and lunch that fuels you earlier in the day so you won’t be running on fumes later that afternoon. These meals will be digested in plenty of time for your afternoon or evening workout. You will feel ready for action rather than hungry, tired.

Some people, eating lots of sugary foods for quick energy 15 to 45 minutes before exercise can hurt their performance. The sugar causes the body to secrete insulin which, when combined with exercise, can cause blood sugar to drop. If you are sensitive to blood sugar changes, you may feel light-headed, uncoordinated, shaky, and tired. This is needless—and preventable.

FLUIDS: Just as lack of carbohydrates can hurt athletic performance, so can lack of fluids. To prevent yourself from becoming dehydrated, drink lots of liquids before, during, and after strenuous exercise. To tell if you’ve had adequate fluids, monitor your urine. It should be pale yellow, not dark like beer.

Which is better: water or a sports drink? Water is fine for exercise that lasts less than an hour, particularly if you have enjoyed a pre-exercise snack to fuel your workout. If you are exercising for more than an hour and are low on energy, a sports drink during exercise offers energizing carbohydrates and can enhance your stamina and endurance. After exercise, water (plus a carbohydrate snack such as a fruit yogurt or smoothie), juice, or sports drink all provide what your body needs: water + carbohydrates.

PRE-COMPETITION MEALS: The day before a competition, you should eat carbohydrate-rich meals. This allows adequate time for your body to digest the carbs and store the energy as glycogen in your muscles.

One to three hours prior to a strenuous morning event (such as a 9:00 a.m. soccer game), you should also eat a light breakfast (cereal, bagel) or comfortable snack (energy bar, banana). This food helps maintain a normal blood sugar level and enhances your stamina and endurance. Before an afternoon or evening competition, eat a hearty breakfast, a comfortable lunch (soup, sandwich), and a snack or dinner as tolerated.

Although many athletes believe they should exercise on an empty stomach, current research suggests pre-exercise food actually improves performance. Because athletes vary in their ability to tolerate pre-exercise food, you need to experiment during training to learn how much and what kinds of food work best for your body. Some popular choices include oatmeal, cereal with lowfat milk, fresh or canned fruit, energy bars, bagels, pasta. Avoid large, hard-to-digest, fatty meals (bacon, cheese omelets, burgers, fried chicken).

RECOVERY FOODS: You should eat or drink carbohydrates as soon as tolerable (within two hours after hard exercise) to replace depleted glycogen stores. Muscles are most receptive to refueling at this time. A simple post-exercise refueler is fruit juice—a rich source of fluid, carbohydrates, vitamins. For athletes who do exhaustive exercise, consuming a little protein along with the carbs (as in fruit yogurt, chocolate milk) may enhance the speed of recovery and reduce soreness.

Remember: Only carbohydrates can quickly refuel your muscles and prepare you for tomorrow’s workout. Hence, resist the greasy burger with french fries for your recovery feast; instead choose carbohydrate-rich thick-crust pizza with veggie toppings, pasta with meatballs, or a grilled chicken dinner that emphasizes potato, pasta, bread, vegetables, juices, and other carbs.

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To recover from the demands of strenuous exercise, you should refuel your muscles with carbohydrate-rich foods as soon as you can tolerate eating. You will recover faster and minimize chronic fatigue. The trick is to plan ahead and have the right sports foods and fluids readily available. Otherwise, your recovery diet will likely become inadequate if you mindlessly eat whatever is around:

• too many greasy, fatty foods. If you succumb to eating whatever is convenient–donuts, burgers, hot dogs, nachos, french fries, chips, and other high fat choices, you’ll fail to refuel your muscles.
• too few carbohydrates. Athletes who are very hungry (as happens after hard exercise) can easily devour excessive ice cream, cookies, and other goodies that often offer more fat than carbs.
• too much protein. By filling up on meats rather than pasta, potato, rolls and other carbs at the recovery dinner, you’ll leave your muscles unfed.
• too few total calories. Weight conscious athletes may mistakenly think carbohydrates are fattening and refuel with protein-rich cottage cheese, tuna, and turkey. The rest of the diet (often salads, fruits, vegetables, and rice cakes) generally offers too few carbs to replace depleted glycogen stores.

An optimal recovery diet is particularly important if you train or compete more than once a day. The following tips can help you integrate an effective recovery diet into both your daily training program and post-competition meals.

#1. Focus your recovery meal on carbohydrates. Your muscles need carbs to make glycogen, the fuel that supports hard exercise. Muscles don’t make glycogen from protein and fat. That’s why cereal (carbs) is a better choice than a cheese omelet (protein/fat) for a post-exercise breakfast.

#2. Eat 75 to 150 grams carbohydrate as soon as tolerable (and again every two hours) after intense exercise. More precisely, consume 0.75 gm carb/lb body weight (about 300-500 calories).

#3. Eating a little protein along with the carbs may enhance refueling, recovery. Suggestions:
• wholesome cereal with milk and fruit
• fruit smoothie (orange juice, yogurt, banana)
• meat sauce on pasta.

If you have no desire to eat solid foods after a workout, simply drink some juice (fluid + carbs) or chocolate milk (fluid + carbs + protein).

#4. Drink enough fluids to quench your thirst and then drink more. If you’ve become very dehydrated (as indicated by the inability to urinate), you may need 24 to 48 hours to totally replace this fluid. Because thirst poorly indicates whether or not you’ve had enough to drink, you should keep sipping fluids until your urine is a light color and of significant quantity. Dark colored urine is still concentrated with metabolic wastes, a sign you are not yet in water balance.

#5. If you crave salt, sprinkle a little on your food, or select a salty food such as soup, pretzels, or salted crackers. Although you lose a little bit of sodium (a part of salt) when you sweat, you are unlikely to totally deplete your body’s supply unless you exercise hard under hot conditions for more than 4 hours. You can easily replace sodium losses with a hearty recovery meal, given the American diet typically provides 6 to 12 times the amount of needed salt.

#6. Eat wholesome fruits, vegetables, and juices that contain potassium, a mineral (electrolyte) that you lose in sweat. Some excellent choices rich in both potassium and carbohydrates include oranges or orange juice, bananas, raisins, dried apricots, potatoes, winter squash.

#7. Post-exercise, remember that natural juices offer more health value as compared to sports drinks. Natural juices (orange, grapefruit, juice-blends) are rich in potassium, vitamins, and carbohydrates, nutrients that enhance recovery. In contrast, sports drinks offer fewer carbohydrates (because they are dilute and designed for use during exercise) and have little nutritional value. Orange juice, for example, offers 20 times more potassium than do most sports drinks.

#8. Keep eating carbohydrate-rich foods for at least two days after exhaustive endurance exercise to adequately replace depleted glycogen stores. Your muscles need time to carbo-reload.

#9. After an exhaustive workout, take a day off from exercise. Rest your muscles to allow them time to replace depleted glycogen stores. Rest is a critical part of both the training and recovery program. You aren’t “being lazy” if you take a day off. You are investing in your future performance.
When you are training hard, juggling exercise with school, work, and social activities plus trying to eat healthfully, you may feel frustrated you have no time to eat the proverbial "three square meals" every day. Never-the-less, you can maintain a healthy diet. The trick is to eat a variety of wholesome, lowfat foods.

The following list includes foods that you can easily find in a convenience store, sandwich shop or salad bar, or can keep stocked at home. These nourishing choices invest in your health within a moderate to low calorie range. Because not one food is nutritionally complete, you need to choose a variety of foods to get a balance of the vitamins, minerals, carbohydrates and proteins necessary for top performance and good health.

<table>
<thead>
<tr>
<th>MILK, YOGURT, lowfat or skim</th>
<th><strong>For calcium, protein, riboflavin</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan to eat lowfat dairy products 3 to 4 times daily to protect bones, reduce risk of developing high blood pressure, and enhance fat loss.</td>
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<table>
<thead>
<tr>
<th>BROCCOLI</th>
<th><strong>For vitamins A, C, phytochemicals, fiber</strong></th>
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</thead>
<tbody>
<tr>
<td>One stalk (cooked) offers all the vitamin C you need for a day. Frozen broccoli is easy to prepare and is nutritionally similar to fresh; freezing retains vitamins.</td>
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<table>
<thead>
<tr>
<th>SPINACH</th>
<th><strong>For vitamins A, C, folate, phytochemicals</strong></th>
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</thead>
<tbody>
<tr>
<td>Add spinach to salads for more nutrients than offered by pale lettuces. Keep frozen spinach stocked at home for a quick dinner vegetable.</td>
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<table>
<thead>
<tr>
<th>PEPPERS, green, red, yellow</th>
<th><strong>For vitamins A, C, phytochemicals</strong></th>
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</thead>
<tbody>
<tr>
<td>Half a pepper provides the RDA for vitamin C. Add to salads and pizza; snack on raw peppers.</td>
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<thead>
<tr>
<th>TOMATOES, fresh, sauce, or juice</th>
<th><strong>For vitamins A, C, phytochemicals</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Boost intake by adding sliced tomatoes to sandwiches. Choose foods with tomatoes (pizza, pasta, soup).</td>
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<table>
<thead>
<tr>
<th>BAKED POTATO</th>
<th><strong>For vitamin C, carbohydrates, potassium</strong></th>
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</thead>
<tbody>
<tr>
<td>The potato skin is rich in vitamin C. Eat it! Top potato with a little lite sour cream, or mash it with milk to add moistness with less fat/calories than butter.</td>
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<thead>
<tr>
<th>ORANGES, GRAPEFRUIT, whole and juice</th>
<th><strong>For vitamin C, folate, carbohydrates, potassium</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>A great post-exercise recovery food. Orange and grapefruit juice is nutritionally superior to most juices; 8 oz. (fresh or from frozen) provides the RDA for vitamin C.</td>
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<table>
<thead>
<tr>
<th>BANANAS</th>
<th><strong>For vitamin C, carbohydrates, potassium</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevent over-ripening by storing bananas in the refrigerator. The skin blackens but the fruit is fine. Frozen chunks taste like ice cream—a great snack!</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>CANTALOUE, KIWI, BERRIES</th>
<th><strong>For vitamins A, C, phytochemicals</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Enjoy these fruits as snacks or a fruit salad with lowfat cottage cheese—perfect for breakfast or lunch.</td>
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<thead>
<tr>
<th>CHICKEN, TURKEY</th>
<th><strong>For protein</strong></th>
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<tbody>
<tr>
<td>Thigh and leg meat has more iron and zinc than does breast meat, but also a little more fat. Avoid the skin, the fattiest part!</td>
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<thead>
<tr>
<th>LEAN BEEF</th>
<th><strong>For protein, iron, zinc</strong></th>
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<tbody>
<tr>
<td>Beef is among the best sources of iron and zinc. Avoid fatty meats, i.e., choose a lean roast beef sandwich or a lean burger.</td>
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<thead>
<tr>
<th>TUNAFISH, SALMON, canned or fresh</th>
<th><strong>For protein, fish oil</strong></th>
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</thead>
<tbody>
<tr>
<td>The oil in any fish is health protective. Limit your intake of fried fish. Mix tuna with lowfat mayonnaise, when available.</td>
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<thead>
<tr>
<th>PEANUT BUTTER, NUTS</th>
<th><strong>For fiber, carbohydrates, B-vitamins</strong></th>
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</thead>
<tbody>
<tr>
<td>Although peanut butter and nuts are high fat foods, their fat protects against heart disease. Enjoy peanut butter in sandwiches or with fruit (apples, bananas); snack on nuts, trail mix.</td>
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<thead>
<tr>
<th>BRAN and WHOLE GRAIN CEREALS, enriched</th>
<th><strong>For fiber, carbohydrates, B-vitamins</strong></th>
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<tbody>
<tr>
<td>Bran is excellent for fiber (to help prevent constipation). Select “fortified” and “enriched” cereals for the most iron. Drink orange juice with cereal to enhance iron absorption.</td>
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<thead>
<tr>
<th>BAGELS, whole wheat, pumpernickel, rye, whole grain</th>
<th><strong>For fiber, carbohydrates, B-vitamins</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesome bagels are preferable to donuts or cake-like muffins. Choose lite cream cheese; spread with jam for extra carbs.</td>
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</table>

<table>
<thead>
<tr>
<th>BREADS, ROLLS, preferably whole grain</th>
<th><strong>For carbohydrates, fiber, B-vitamins</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hearty, whole grain breads (rye, whole wheat, multi-grain) are preferable to breads made with refined white flour. Limit butter, margarine, mayonnaise on breads, rolls, sandwiches.</td>
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</tbody>
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<table>
<thead>
<tr>
<th>PIZZA, thick crust</th>
<th><strong>For calcium, protein, vitamin A, carbohydrates</strong></th>
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</thead>
<tbody>
<tr>
<td>Of the popular fast foods, pizza with thick crust, single cheese, and vegetable toppings (not pepperoni, sausage!) is preferable to burgers. If the pizza is oily, blot off the grease with a napkin.</td>
<td></td>
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</tbody>
</table>

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<thead>
<tr>
<th>POPCORN, air popped</th>
<th><strong>For carbohydrates, fiber</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>A whole grain, lowfat snack that is preferable to greasy chips. Be cautious of even &quot;lite&quot; popcorn brands; they can be half fat.</td>
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</table>
THE PRE-COMPETITION MEAL

When it comes to pre-competition eating, you have to learn through trial and error what foods and fluids work best for your body. No one food or "magic meal" will ensure top performance. Some athletes (such as those in sports involving running and jumping) may prefer to eat nothing for four hours before an event. But most people perform better after having eaten a small, 100 to 300 calorie snack within one hour, or a moderate 300 to 600 calorie meal within three hours of the event. The goal of this pre-competition meal is to enhance stamina and endurance without causing any stomach discomfort. The meal or snack helps:

- maintain a normal blood sugar and prevent performance problems associated with hypoglycemia, such as light-headedness, blurred vision, needless fatigue, inability to concentrate, and indecisiveness.
- settle the stomach, absorb some of the gastric juices, and prevent feelings of hunger.
- provide energy to fuel the muscles. Despite popular belief, your body can digest the food you eat before exercise and put it to good use!
- just as eating too much pre-exercise food can have adverse effects (nausea, stomach cramps), so can eating too little food (low energy). The following guidelines offer points to consider regarding your own personal pre-exercise eating program. Because each person is unique, you must experiment to learn which foods--and how much of them--work best for you.

1. Choose primarily carbohydrates before an event because they digest quickly and are readily available for fuel. Some popular choices include bananas, cereal, bread, bagel, crackers, and pasta. A little protein and fat are OK to eat for sustained energy, but large portions of fried foods, peanut butter, cheesesburgers, or other fatty meals will linger in the stomach and may feel heavy, uncomfortable and talk back to you.

2. Pay attention to meal timing. In general, you should allow 3 to 5 hours for a large meal to digest; 2 to 3 hours for a smaller meal, 1 to 2 hours for a blenderized meal (liquids are absorbed more rapidly than solid foods), 0 to 1 hour for a small snack. As well, eat extra carbohydrates the day prior to a competitive event and do little or no exercise so your muscles can best refuel.

**Before morning events:** Eat a hearty, high carbohydrate dinner and bedtime snack the prior night. That morning, eat a light meal (such as 1 to 2 slices of toast and/or cereal) as tolerated to stabilize your blood sugar, absorb some of the gastric juices, and keep you from feeling hungry.

**Before afternoon events:** Eat a hearty breakfast and a lighter carbohydrate-based lunch.

**Before evening events:** Eat a hearty breakfast and lunch, then a light meal as tolerated 1-2 hours prior.

Some athletes break all the rules and enjoy a big meal within an hour of the event and suffer no digestive problems. Others prefer to eat nothing for four hours prior. You simply have to experiment during training to determine what foods (if any) settle comfortably, when you should eat them (one, two, or three hours prior?), and how much you can eat.

3. If you get very nervous or have a sensitive stomach, you may prefer to eat nothing before the event. In that case, you should make a special effort to eat extra the day before to help compensate for lack of event-day fuel.

4. Always eat familiar foods prior to competition. Do not try anything new! Experiment with new foods during training to determine if they settle well, cause "acid stomach", gas, heart burn, cramps, or intestinal discomfort.

5. Eat a carbohydrate-based diet every day to prevent chronic glycogen depletion and ensure adequate glycogen replacement. One high-carb pre-event meal does not compensate for a week of inadequate eating.

6. When traveling, plan to bring your favorite sports foods such as a tried-and-true cereal, energy bar, fruit, or sandwich. This way, you can worry less about fueling yourself and be free to focus on performing.

7. The pre-competition meal may have a greater psychological than physiological value. For example, if you firmly believe that a steak dinner helps you perform best, then eat it even though this meal "breaks the rules" regarding pre-game suggestions! But also be sure to accompany the steak with a noodle-type soup, potato, rolls, vegetables, juice and other carbohydrate-rich foods that will fuel your muscles. The steak simply fills your stomach and is a poor source of muscle fuel.

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Sample high carbohydrate, low fat pre-competition food suggestions:

**Breakfasts:** oatmeal, cold cereal, lowfat milk, banana, toast, juice, muffin, bagel, yogurt, french toast, pancakes.

**Lunches:** sandwich with hearty bread but little mayo, noodle soup, thick-crust pizza w/ single cheese, no meat.

**Snacks:** crackers, cereal, bagel, toast, canned or fresh fruit, yogurt, energy bar, small turkey sandwich, leftover pasta.

**Dinners:** spaghetti with tomato sauce; a small serving of chicken with extra rice, noodles, potato, or rolls.
FLUIDS, DEHYDRATION & THIRST QUENCHERS

Drinking enough fluids is essential for top athletic performance. Unfortunately, many active people pay too little attention to proper hydration and fail to include adequate fluids in their sports diet. They fatigue early and needlessly hurt their performance.

If you sweat heavily and lose too much fluid, you reduce your ability to provide adequate circulation to both the muscles and body surface. This not only hurts your performance but also endangers your health because body fluids have important jobs. Fluid in the blood transports glucose to the muscles and carries away lactic acid. Urine eliminates waste products. Sweat dissipates heat via the skin. By using the following tips, you can help keep your body well hydrated.

Fluids during training

On a daily basis, make sure you drink enough fluid. You can easily determine if you have had enough to drink by monitoring the volume & color of your urine.

1. You should urinate every two to four hours throughout the day. The urine should be a light color, like lemonade, and in significant quantity. If the urine is dark, concentrated and scanty, you need to consume more water, juice and other fluids. Note: If you take vitamin pills, your urine may be dark colored. Monitor hydration by the quantity of urine and darkness of color.

2. To increase awareness of your sweat losses during exercise, weigh yourself before and after a hard workout. Each pound lost represents one pound (16 ounces) of sweat. During training, practice replacing sweat losses accordingly, and try to lose <2% of your weight.

3. You don’t have to drink only water for fluids. Juices, soft drinks, and watery foods such as yogurt, oranges, melon and soup all have a high water content that contributes to overall fluid balance.

4. Be aware that beer, wine and alcohol can hurt your performance. If you choose to drink alcoholic beverages, be sure to first quench your thirst with other fluids (and eat carbohydrates to fuel your muscles). That is, drink two glasses of water, eat some pretzels, then have a beer, if desired.

Fluids before hard endurance exercise

1. The day before, drink extra water, juice and other fluids to be sure your body is well hydrated.

2. The morning of the event, drink at least 16 ounces of fluids up to two hours prior to the start. Because the kidneys require 45 to 90 minutes to process liquids, two hours allows adequate time for you to empty your bladder before the start of the event.

3. Five or ten minutes before start-time, “tank up” on another 8 to 16 ounces of water or sports drink.

Fluids during hard exercise

1. Drink 8 to 10 ounces of water, sports drink or diluted juice every 20 minutes. Because you may be sweating three times this amount, you may still have a fluid deficit. Stop drinking if your stomach is “sloshing.”

2. Prevent dehydration by drinking adequate fluids early in the event. Drink before you get thirsty! By the time your brain signals thirst, you will have lost 1% of your body weight (1.5 lbs or 24 ounces of sweat for a 150 lb. person). By 2% dehydration (3 lbs. sweat loss), you have reduced your work capacity by 10 to 15%.

Fluids after exercise

1. Drink to quench your thirst, and then drink even more. Because the thirst mechanism inadequately indicates whether or not you’ve taken enough fluids, you’ll have to tell by monitoring your urine. If several hours pass without your having to urinate, you are still dehydrated. Keep drinking!

2. Juices (such as orange, apple, cranberry) replace not only fluid but also offer more carbohydrates than do most sports drinks. Drinking 16-24 ounces within the hour after exercise helps muscles refuel and recover.

Water vs. sports drinks

For the casual exerciser, water is always appropriate. Water is convenient, familiar, and satisfies your body’s needs. For highly competitive athletes who exercise intensely for an hour, and for endurance athletes who expend large amounts of energy for more than an hour, a sports drink during exercise will optimize fluid absorption and retention, and enhance stamina and endurance. The beverage should offer 50 to 80 calories per 8 ounces plus a little sodium. Be sure to experiment during training to learn which flavors of sports drinks settle best in your stomach.

Sodium replacement

Sweat contains not only water but also small amounts of sodium (and other electrolytes) that keep your body in fluid balance. You lose small amounts of sodium when you sweat, but you do not deplete your body’s stores—except possibly under extreme circumstances such as exercising for more than 4 to 6 hours in the heat. Most athletes can easily replace sodium losses by eating pretzels, soup, pizza, and other standard food after exercise. Commercial fluid replacement drinks are generally weak sources of sodium compared to what you can get in your recovery meal. The sodium in sports drinks is added to enhance fluid absorption and retention, not to replace sweat losses.

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1. For 2 to 3 days prior to a marathon or other event that will involve more than 90 minutes of hard exercise, you should **super-fuel** your muscles by eating a hearty amount of carbohydrate-rich foods. The majority of your calories (3-5 grams carb/lb body weight) should come from grains (pasta, rice, cereal, bread), fruits, juices, and vegetables. Also include adequate protein to protect your muscles; eat limited amounts of fatty food.

2. **Exercise less.** Taper your training to rest your muscles and allow them the opportunity to refuel. The week prior to the event, gradually reduce your exercise, so you are training only 20 minutes two and three days prior to the event; nothing the day before. Eliminate any last minute endurance training; you will simply fatigue yourself at a time when rest is more beneficial.

3. **Eat reasonably.** To avoid "getting fat" due to the reduced amount of exercise, eat reasonably, not gluttonously. Each meal should be based on carbohydrates, with small amounts of lean protein and limited amounts of fat. If you carbo-load correctly, you will gain weight: water-weight, not body fat. For every 1 gram carbohydrate stored in your muscles, you store ~3 grams water. During exercise, the water will help delay dehydration.

4. **Drink extra fluids** (until your urine is a light color) so you start the endurance event optimally hydrated. Otherwise, lack of fluids will seriously hurt your stamina and performance. Limit beer, wine and alcohol; they can hurt performance.

5. **Eat a pre-event breakfast.** The food you eat the morning of the event helps maintain a normal blood sugar level; it fuels your brain and helps you think clearly. Eat a comfortable meal 1 to 4 hours prior, such as 400 to 800+ calories of oatmeal, cereal, yogurt, or whatever you normally eat prior to training sessions. Don’t try new foods!

   For fluids the morning of the event, drink at least 3 glasses (24 ozs) of water, sports drink, or juice up to 2 hours before the start. (The kidneys will process this liquid in less than 90 minutes, allowing time for you to urinate the excess.) Drink 8 to 16 ounces of water or sports drink as tolerated 5 to 10 minutes before the start.

6. **During the event, drink on a schedule:** **8** to **10** ounces every 20 minutes. Because you need both fluid and about 240 calories of carbohydrates per hour (for fuel), plan to consume sports drinks or water plus high-carb foods (banana, energy bar, gels) during the event. Stop drinking if the fluids are sloshing in your stomach. (Pre-marathon, learn your sweat rate: weigh yourself before and after one hour of exercise. One pound lost equates to 16 ounces you need to drink during exercise.)

7. **After the event, enjoy a nice meal or smaller snacks.** Keep in mind your muscles need carbohydrates to refuel. A little protein enhances the process and may reduce muscle soreness. Choose some salty foods (soup, pretzels, spaghetti sauce) to replace sodium losses. Drink plenty of non-alcoholic fluids until your urine is a clear color.

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**Be sure to choose low fat carbohydrates.** When selecting your diet, carefully choose high carbohydrate foods, not high fat foods. The two often come together, such as **butter** on potato and **cream** in ice cream.

<table>
<thead>
<tr>
<th>Best choices (highest in carbohydrates):</th>
<th>Poorer choices (lower in carbohydrates):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spaghetti and pasta meals with tomato sauce</td>
<td>Pizza &amp; pasta meals with lots of meat, cheese</td>
</tr>
<tr>
<td>Rice, potato, yams, stuffing - limit butter, gravy</td>
<td>French fries, fried rice, buttery potato</td>
</tr>
<tr>
<td>Lentils, chili with beans, split pea soup</td>
<td>Meals with lots of meat or cheese</td>
</tr>
<tr>
<td>Bread, muffins, bagels, cereal</td>
<td>Donuts, croissants, danish pastry</td>
</tr>
<tr>
<td>French toast, pancakes, oatmeal</td>
<td>Eggs, omelets, and breakfast meats</td>
</tr>
<tr>
<td>Jam, jelly, honey, syrup</td>
<td>Butter, margarine, cream cheese</td>
</tr>
<tr>
<td>Fruit - bananas, pineapple, raisins, figs</td>
<td>Cookies, chips, high-fat snacks</td>
</tr>
<tr>
<td>Apple crisp, date squares, fig bars</td>
<td>Desserts made with lots of butter</td>
</tr>
<tr>
<td>Juices - apple, grape, cranberry, orange</td>
<td>Beer, wine, alcohol</td>
</tr>
<tr>
<td>Blenderized fruit and juice smoothies</td>
<td>Milk shakes, frappes</td>
</tr>
<tr>
<td>Sherbert, sorbet, frozen yogurt</td>
<td>Ice cream - especially gourmet brands</td>
</tr>
</tbody>
</table>
FOODS HIGHEST IN CARBOHYDRATES

For optimal health and sports performance, you should choose grain-based foods, vegetables, fruits and juices for both your daily training diet and for precompetition meals. Here are some suggestions.

Spaghetti, macaroni, noodles, and other plain pastas
Top pasta with tomato sauce to add more carbohydrates. Be cautious of casseroles, lasagnas and other pasta-entrees with lots of meat, cheese, or oil that contributes to “fat loading” rather than carbo-loading.

Rice
Steamed or boiled rice is preferable to chinese fried rice (saturated with oil and calories from fat). When possible, choose brown rice; it has more nutritional value than does white rice.

Potato, sweet potato, yams
Limit fatty french fries but enjoy potatoes that are baked, boiled or mashed (with minimal butter). Add moistness to a baked potato by mashing it with milk or topping it with lite sour cream.

Stuffing
A tasty, carbohydrate-rich change from pasta and potato. Store-bought stuffings are very quick and easy to prepare. Just add hot water and, if desired, some raisins and diced apples for extra carbs.

Couscous, millet, bulgar, kasha, barley
Wholesome alternatives to the standard dinner starches and a creative addition to casseroles and meals. Couscous cooks very quickly; the others take more time, so cook them in quantity for leftovers.

Dried beans (such as pinto, black, garbanzo), split peas, lentils
Chili beans, split pea soup, lentils, refried beans, baked beans, limas, and other beans are excellent sources of carbohydrates, protein and fiber. Caution: large portions may lead to digestive problems!

Bread, rolls, tortillas, wraps
Try to choose hearty, whole grain products made from whole wheat, oatmeal, rye, and corn to get more fiber and nutritional value than offered by refined, white flour products. Add butter sparingly, if at all, to breads so that you fill up on carbohydrates and not on butter (fat).

Pretzels, air-popped popcorn, lowfat crackers, baked chips
These lowfat munchies are preferable to greasy potato chips, tortilla chips, and crackers that leave you with greasy fingertips because they contain significant amounts of saturated (trans) fats. Look for lowfat snacks, including baked chips and baked or reduced-fat crackers.

When making popcorn, pop the kernels in minimal canola oil or use an air-popper. Commercially bagged popcorn or the microwave oven brands generally contain at least half of the calories from fat. Even the “lite” brands can be deceptively high in fat and relatively low in carbs.

Hot cereal
Add raisins, banana, dried fruit, brown sugar, or maple syrup for extra carbohydrates. Any hot cereal is a good choice, with oatmeal and oat bran being particularly heart-healthful. Whole grain cereals such as Wheatena and Maltex offer wholesome goodness; Cream of Wheat is an iron-rich choice. By mixing or alternating cereals (such as Wheatena with Cream of Wheat), you’ll enhance your nutrient intake.
Cold cereal
Rather than eating puffed or flaked cereals, choose dense cereals such as Grape-Nuts, Wheat Chex or lowfat granolas. If constipation is a problem, choose brands with fiber or bran in the name (raisin bran, bran flakes). Add extra carbs by topping the cereal with bananas, raisins, and other fresh or dried fruits. Consider saving sugary cereals for snacks or dessert, rather than eating them for breakfast.

Bagels, lowfat muffins, corn bread, banana bread
For extra carbohydrates, spread these with jam or honey rather than butter, margarine, cream cheese.

Pancakes, waffles, french toast
Top these with additional carbohydrates such as maple syrup, blueberry sauce, fruit yogurt, honey, jam, or applesauce. Use butter or margarine sparingly, if at all.

Fruit
Dense fruits such as bananas, pineapple, raisins, dates, apricots, and other dried fruits offer more carbs than do watery fruits (such as grapes, plums, and peaches). Don’t try to carbo-load on too much fruit; you may end up with diarrhea!

Juice
Apple, cranberry, cranraspberry, grape, pineapple, apricot nectar, and most juice blends offer more carbohydrates than do orange, grapefruit, and tomato juices. You can increase the carbohydrate content of frozen orange juice by simply diluting it with less water than the directions suggest. Fruit smoothies (made by mixing fruit and juice in the blender) are excellent, carbohydrate-rich drinks.

Desserts
Although many desserts such as cheesecake, ice cream, and rich cookies are made with lots of cream, butter, and shortening (and thereby have a high fat content), you can carbohydrate-load on lower fat (and more nutritious) alternatives such as apple crisp, blueberry cobbler, angel cake, date squares, fig bars, and oatmeal raisin cookies.

Frozen yogurt, lowfat ice cream, sherbert, sorbet, juice bars
These lowfat frozen desserts are preferable to rich and creamy choices. If you must have ice cream, choose the lower fat (less expensive) brands that have a higher percentage of calories from carbohydrates than do the high-priced gourmet brands.

Refined sugars and other carbohydrates with little nutritional value
Fueling-up on foods loaded with refined sugars is the equivalent of putting gas in a car but neglecting the spark plugs (that is, the vitamins and minerals). Although refined sugars do fuel the muscles, they lack nutritional value. If desired, eat the following sweets in moderation—and in addition to other wholesome foods:

- Jelly beans
- Licorice
- Gummy bears
- Marshmallows
- Other low-fat sweets
- Honey
- Brown sugar
- Jam
- Jelly
- Maple syrup
- Carbonated soft drinks
- Lemonade
- Kool-Aid
- Other sweetened beverages
- Sports drinks (such as Gatorade, Ultra-Fuel or other sports drinks and recovery beverages)
- Commercial carbohydrate powders and formulas

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CARBS "TO GO" — Tips for the Traveling Athlete

Traveling presents challenges for athletes who need adequate carbohydrate-rich meals and snacks. All too often, traveling athletes seek convenience rather than carbs; they fuel themselves on whatever happens to be easiest at that moment at the nearest convenience store, deli, or quick service restaurant. This can easily result in a high fat diet of donuts, french fries, nachos, burgers, and other greasy foods. Although you may rationalize you "deserve" this convenient treat (you're tired, hungry, stressed, anxious, lonely, bored, or any combination of these), eating too many fatty foods can compromise your sports diet and your performance.

Whereas the occasional high fat meal is unlikely to interfere with top performance, a steady fast food diet can take its toll. To help you better accommodate a high carb sports diet into your traveling routine, here are some suggestions for eating on the road.

**Important tip:** Always eat a hearty breakfast on travel days. This prevents you from getting too hungry—at which point you care less about what you eat—and invests in your ability to wisely plan for/choose wholesome carbohydrate-rich foods the rest of the day.

**BREAKFAST:** At a restaurant, choose blueberry pancakes, french toast, whole wheat toast, bagels, granola, cereal, oatmeal. Add jam or syrup for extra carbs but "hold the butter" or request it "on the side."

- Order a large juice (preferably orange, grapefruit, V-8, tomato, or carrot) for vitamin C and potassium. This can help compensate for a potential lack of fruits or vegetables in the other meals.
- At a hotel, you can save time and money by packing your own cereal, raisins, and spoon. (A water glass can double as a cereal bowl.) Either bring powdered milk, or buy lowfat milk at a local store.

**LUNCH:** Find a deli or restaurant that offers whole grain breads and request a sandwich that emphasizes the bread rather than the filling. "Hold the mayo" and instead use mustard, ketchup, sliced tomatoes, and lettuce for moisture. Add more carbohydrates with soup (noodle, vegetable), juice, yogurt, fruit, pretzels, energy bar, or frozen yogurt.

- At quick service restaurants, choose baked potatoes, chili, thick crust pizza, or bean burritos instead of burgers, fries, chicken, and other fast foods that have a very high fat content. Request extra bread or rolls.
- At a salad bar, generously pile on the chick peas, three bean salad, toasted croutons. Fill up on breads and rolls instead of "fat loading" on salad dressings and mayonnaise-smothered pasta and potato salads.
- Hearty soups (such as split pea, minestrone, lentil, barley, noodle) accompanied by crackers, bread, rolls, bagel, English muffin or corn muffin provide a satisfying lunch that is rich in carbs and low in fat.

**DINNER:** Patronize restaurants that offer plentiful carbohydrates (pasta, baked potatoes, rice, steamed vegetables, salad bars, homemade breads, fruit, juice), as well as broiled foods and other low fat entrees.

- Order a thick crust pizza with vegetable toppings rather than thin crust pizza with pepperoni or meat.
- Enjoy bread and rolls either plain or with jelly (special request). To boost calories, eat another slice of bread, a second potato, soup and crackers, juice, sherbert, frozen yogurt, and other carb-based foods.

**SNACKS & MUNCHIES:** Pack your own goodie grab bag. Some suggestions include: whole grain bagels, granola bars, animal crackers, pretzels, raisins, energy bars, oatmeal cookies, dried or fresh fruit, and juices.

- Buy wholesome snacks at the convenience store: small packets of trail mix, raisins, or dried fruit, yogurt, granola bars, animal crackers, pretzels, raisins, energy bars, oatmeal cookies, dried or fresh fruit, and juices.

**IN AIRPLANES** Be sure to drink plenty of fluids. You can very easily become dehydrated due to the low humidity in the cabin. Request two beverages per serving, or bring along your own water bottle so you'll always have plenty to drink.

- To safeguard against irregular meal times and inadequate meals, pack along a sandwich or other hearty snack for "emergency food." If desired, pre-order special meals (vegetarian, low cholesterol).
- To limit jet lag, set your watch to the destination time and eat according to that time schedule. Drink lots of fluids, but avoid caffeine and alcohol.
Iron is an important part of red blood cells. It helps transport oxygen to your muscles. If you have a diet that is low in iron, you may develop iron deficiency anemia. The symptoms are weakness and rapid fatigue upon exertion.

The Recommended Dietary Allowance for men is 8 milligrams iron; for women, 18 mgs. Women require more iron because they lose it through menstrual bleeding. The average woman consumes less than the RDA for iron.

Red meat is among the best dietary sources of iron. Non-meat eaters have a higher risk of becoming anemic compared to meat-eaters. Humans absorb the iron in meat (and in other animal proteins) twice as efficiently as the iron in plants. For example, spinach is a relatively iron-rich plant, but only 3% of its iron is absorbable.

Eating animal protein enhances the absorption of plant-iron when the two types of food are eaten together. Hence, if you were to eat spinach along with some chicken, meat, or fish, the animal protein would help you to better absorb the iron in the vegetable. Similarly, adding lean hamburger to chili enhances absorption of the beans' iron.

Vitamin C enhances iron absorption. Plan to eat vitamin C-rich foods along with meals, such as orange juice with cereal, tomato on a sandwich, vegetables with dinner. Some fruits rich in vitamin C include oranges, grapefruit, cantaloupe, strawberries. Some C-rich vegetables include broccoli, spinach, peppers, tomato, potato.

Breads, cereals, and other grain foods are good sources of iron only if the words enriched or fortified are on the food label. In general, grains offer very little iron, and their iron is poorly absorbed. You can significantly boost absorption of iron-enriched grains by eating a source of vitamin C with the meal. For example, orange juice with cereal increases iron absorption 2.5 times.

When cooking, use cast iron skillets and pots. Cast iron offers more nutritional value than does stainless steel cookware! The iron in tomato sauce increases from 3 to 88 mgs/half-cup sauce when the sauce simmers in an iron pot for 3 hours.

Milk and dairy products are poor sources of iron. Hence, if you rely primarily on cheese, yogurt, milk and other dairy products for protein, remember you also need to include some other iron-rich foods in your diet.

You might want to take a simple iron supplement such as a multi-vitamin and mineral pill if you do not eat lean red meats, iron-enriched breakfast cereals or grains, and do not use cast iron cookware. Although the iron in meats is absorbed better than that in a pill, taking the RDA may help protect you from becoming anemic.

If you are an avid athlete who participates in running-type sports, you should pay particular attention to your iron intake. For example, runners, as compared to other athletes, are more prone to becoming anemic. They often experience small blood (iron) losses via the intestinal track. The pounding on their feet can also damage blood cells and require iron for replacement.

<table>
<thead>
<tr>
<th>Animal sources (best absorbed)</th>
<th>Iron (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef, 4 ounces roasted</td>
<td>3</td>
</tr>
<tr>
<td>Turkey, 4 ounces roasted dark meat</td>
<td>2</td>
</tr>
<tr>
<td>Tuna, 6.5 ounce can, light</td>
<td>2</td>
</tr>
<tr>
<td>Pork, 4 ounces roasted</td>
<td>1</td>
</tr>
<tr>
<td>Chicken breast, 4 ounces roasted</td>
<td>1</td>
</tr>
<tr>
<td>Fish, 4 ounces broiled haddock</td>
<td>1</td>
</tr>
<tr>
<td>Egg, 1 large</td>
<td>1</td>
</tr>
<tr>
<td>Fruit and juice</td>
<td></td>
</tr>
<tr>
<td>Prune juice, 8 ounces</td>
<td>3</td>
</tr>
<tr>
<td>Apricots, 8 halves dried</td>
<td>1</td>
</tr>
<tr>
<td>Raisins, 1/3 cup</td>
<td>1</td>
</tr>
<tr>
<td>Vegetables</td>
<td></td>
</tr>
<tr>
<td>Spinach, 1/2 cup cooked</td>
<td>3</td>
</tr>
<tr>
<td>Green peas, 1/2 cup cooked</td>
<td>1</td>
</tr>
<tr>
<td>Broccoli, 1/2 cup chopped</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Beans and Legumes</th>
<th>Iron (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kidney beans, 1 cup canned</td>
<td>5</td>
</tr>
<tr>
<td>Baked beans, 1 cup</td>
<td>3</td>
</tr>
<tr>
<td>Bean curd (tofu), 1/4 cake</td>
<td>2</td>
</tr>
<tr>
<td>Grains</td>
<td></td>
</tr>
<tr>
<td>Cereal, Total 100% fortified, 1 cup</td>
<td>18</td>
</tr>
<tr>
<td>Just Right, 1 cup</td>
<td>16</td>
</tr>
<tr>
<td>Cheerios, 1 cup</td>
<td>8</td>
</tr>
<tr>
<td>Cream of Wheat, 1 packet</td>
<td>8</td>
</tr>
<tr>
<td>Kellogg’s Raisin Bran, 1 cup</td>
<td>5</td>
</tr>
<tr>
<td>Wheat germ, 1/4 cup</td>
<td>2</td>
</tr>
<tr>
<td>Spaghetti, 1 cup cooked, enriched</td>
<td>2</td>
</tr>
<tr>
<td>Bread, 1 slice enriched</td>
<td>1</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td></td>
</tr>
<tr>
<td>Brewer’s yeast, 1 ounce</td>
<td>5</td>
</tr>
<tr>
<td>Molasses, 1 tablespoon blackstrap</td>
<td>3</td>
</tr>
</tbody>
</table>

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BREACFAST IS FOR CHAMPIONS

I don’t have time. I’m not hungry in the morning and I’m on a diet are three common excuses for missing breakfast. Unfortunately, athletes who skip breakfast generally train less effectively, suffer needless fatigue, and can perform suboptimally. They also tend to have trouble concentrating and work or study less efficiently later in the morning. Clearly, breakfast is a very important meal of the day!

If you are a breakfast skipper who routinely misses this energizing meal, try this experiment: Eat breakfast for three consecutive days and enjoy the benefits—more energy, less hunger, better nutrition. You’ll quickly discover breakfast is indeed a key meal for champions!

Here are some solutions to some common breakfast barriers. Perhaps they’ll help you to incorporate breakfast into your morning routine.

I don’t have time: You really do have time to do what you want to do. If you can make time to exercise, you can also make time to enhance your exercise program by appropriately fueling your muscles. You’ll discover: • you can think and work better if you refuel yourself within two hours after an early morning workout. • you have much more energy during an afternoon workout if you have eaten a substantial breakfast.

If you won’t eat breakfast at home, then simply eat breakfast on the run: a bagful of raisins and granola at the bus stop, a bagel with peanut butter on the way to school, or a yogurt and bran muffin bought at work. You don’t have to eat breakfast immediately upon rising, but rather within three or four hours of waking. That morning coffee break can be more than just coffee!

I’m not hungry in the morning: Most often, athletes who lack a morning appetite ate their breakfast at bedtime. Too much evening snacking can easily ruin your morning appetite and also contribute to weight gain (if you overeat), dietary deficiencies (if you replace healthful breakfasts with nutritionally poor snacks) and muscle fatigue (if you eat high-fat evening snacks of chips, cookies, and ice cream that can inadequately refuel your muscles). You will better invest in top performance with a carbohydrate-based sports breakfast of cereal, oatmeal, or bagels. Plan to rearrange your current meal patterns so you eat more during the day, less at night, and wake up hungry.

I’m on a diet: The most successful diets start with a substantial breakfast and end with a light dinner. Research suggests you are more likely to burn off calories you eat during the day in comparison to eating the same calories in the evening. A wholesome, carbohydrate-based breakfast not only fuels your muscles but also prevents you from getting too hungry, at which point you simply “don’t care” about what you eat and are likely to blow your diet on junk food and cheat yourself of the vitamins, minerals, and carbohydrates you need for top performance. Remember: You are going to eat the calories eventually; you might as well enjoy them in the morning to prevent yourself from getting too hungry and then overeating at night. Breakfast invests in losing weight, not gaining fat.

What’s best to eat? Any breakfast is better than no breakfast, but some choices are better than others for your sports diet. You can easily boost your day’s carbohydrate intake with some of these popular breakfast foods: cold or hot whole grain cereal, grits, pancakes, waffles, french toast, english muffins, bagels, toast, banana bread, fruit, juice, yogurt, or whatever carbohydrate-based foods might be readily available. For a non-traditional breakfast, enjoy baked potato, pasta, thick crust pizza, or noodle soup.

One quick and easy "breakfast of champions" is ready-to-eat cereal with lowfat milk, banana and orange juice. This simple meal provides important nutrients that support your athletic program:

Carbohydrates—the best source of muscle fuel. Carbohydrates should be the foundation of every meal in your sports diet. A breakfast with cereal, lowfat milk, banana, and juice is an easy way to help meet that goal!

Iron—a mineral important for carrying oxygen from the lungs to your working muscles. An iron-rich diet reduces your risk of becoming anemic and experiencing needless fatigue during exercise. By drinking a glass of orange juice along with iron-enriched cereals, you may absorb more iron. Note: the "all natural" cereals such as granola, shredded wheat or Grape-Nuts have no additives—hence no iron added. Combine them with enriched brands.

Calcium—from the milk or yogurt that you eat along with cereal. Calcium is important for building strong bones, as well as for helping muscles contract properly. Lowfat milk and yogurt are preferable to whole milk products.

Potassium—a nutrient you lose in sweat. Bananas, orange juice, and whole grain cereals are potassium-rich.

Fiber—to promote regular bowel movements and reduce the risk of unwanted pit stops during exercise. If constipation is a problem, select bran cereal, bran flakes, all-bran, corn bran, or any cereals with bran in the name.

Summary: A carbohydrate-based breakfast is a critical energy booster that helps athletes fuel and/or refuel their muscles. Without this morning meal, you are likely to run on fumes, perform less effectively, and reduce your intake of nutrients that contribute to top performance. Try these meals for a high energy day:

• Bran cereal, banana, lowfat milk.
• Whole grain bagel with peanut butter, lowfat milk.
• Pancakes or french toast with syrup, juice, milk.
• Yogurt with granola and fruit.

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Eating disorders and disordered eating patterns are common among athletes. They affect at least one-third of active women and a smaller number of men. If you know an athlete who seems to be struggling with food and weight issues, speak up! They may be experiencing anorexia or bulimia, dangerous eating behaviors that signal severe unhappiness and can be life-threatening. Here are some tips for approaching this delicate subject.

- **Heed the signs.** Anorectic behavior includes extreme weight loss (often emaciation), obsessive dieting, compulsive exercise, spartan food intake despite significant energy expenditure, and distorted body perception (that is, frequent comments about feeling fat despite being obviously thin). Athletes who struggle with anorexia commonly wear layers of baggy clothing to hide their thinness and may complain about always feeling cold.

  Bulimic behavior can be more subtle. The athlete may eat a great deal of food and then rush to the bathroom; you may hear water running to cover-up the sound of vomiting. The person may hide laxatives and display other secretive behavior, such as stealing money from teammates for food, or shoplifting laxatives. The bulimic may have bloodshot eyes, swollen glands, and obvious weight fluctuations.

- **Approach the athlete gently** but persistently, saying you are worried about his or her health. Share your concerns about what you see: chronic fatigue, inability to finish training without becoming light-headed, injuries that are slow to heal. These health issues are the likely stepping stones for accepting help; the athlete will undoubtedly resist changing the food and exercise patterns that offer a sense of control and stability.

- **Do NOT discuss weight or eating habits.** The athlete takes great pride in being "perfectly thin" and may dismiss your concern as jealousy. The starving or gorging is not the key issue, but rather a smoke screen over the underlying emotional issues. Ask if s/he wants to talk about what is going on in her or his life.

- **Suggest unhappiness as the reason for seeking help.** Point out how anxious, tired, or irritable the athlete has been lately. Emphasize s/he doesn’t have to be that way and can get help.

- **Be supportive and listen sympathetically** but don’t expect the athlete to admit s/he or he has a problem right away. Give it time. Remind the athlete you believe in him or her. This will make a difference in the recovery.

- **Give a written list of resources for help.** Although the athlete may repeatedly deny having any problems, one day s/he may admit despair and seek help. Local resources may be available at a student health center or hospital. Or, contact these organizations that offer nationwide referrals to support groups and counselors.

  National Eating Disorders Assn. 206-382-3587
  www.NationalEatingDisorders.org
  www.somethingfishy.org
  www.bulimia.com

- **DON’T deal with it alone.** If you feel you are making no headway and the athlete is becoming more self-destructive, seek help from a trusted family member, medical professional, or health service. The sooner the athlete gets help, the easier the recovery. If necessary, make an appointment with an eating disorders counselor and bring the athlete there yourself. Tell the athlete you have to involve other people because you care about his or her health and happiness. If you are overreacting and there really is no problem, this health professional will simply be able to ease your mind.

- **Limit your expectations and be patient.** The healing process can be very long and difficult. Remember: you are not responsible for curing the problem. Your power comes from using healthcare professionals such as counselors, eating disorders clinics, dietitians, and doctors. Books about eating disorders can also help.

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If you are an active woman who previously had regular menstrual periods but currently have stopped menstruating, you have amenorrhea. You may believe the amenorrhea relates to being too thin and exercising too much, but that may be incorrect. Fifty to eighty percent of female athletes do have regular menses. Leanness and exercise are not simple explanations to the complexities of amenorrhea.

The question arises: Why are you experiencing menstrual problems when other similarly active and lean women menstruate regularly? The answer may relate to your eating habits. If you are struggling to achieve an unusually low weight, you may be eating inadequate calories as well as protein, fat, and other nutrients needed to support regular menstruation, health, performance. Loss of menses can be a red flag for restrictive eating behaviors. "Absence of at least three consecutive menstrual cycles" is part of The American Psychiatric Association’s definition of anorexia.

Although you may consider amenorrhea a desireable benefit of exercise because you no longer have the hassles of monthly periods, amenorrhea can lead to medical problems:

- almost a three times higher incidence of stress fractures that can hinder your ability to exercise.
- premature osteoporosis that damages your bone health today and can easily get worse with aging.

HOW TO RESOLVE THE PROBLEM

To resume menses, you need to correct an energy imbalance. This can mean exercising 5 to 15% less and eating a little more. Some amenorrheic athletes have resumed menses without gaining weight; others do so after having gained less than 5 pounds. This small weight gain does not cause a drastic change in performance or physical looks but can be enough to achieve better health.

If you believe poor eating may contribute to your menstrual problem, the following tips may help you resume menses or, at least, rule out nutrition-related factors.

1. Throw away the scale. Don’t force your body to weigh a self-selected number on the scale. Rather, honor your genetic weight. To assess your body’s natural weight, visualize yourself at a family reunion and compare your body to the physiques of your family members. If you are far thinner than your family, take note. Perhaps you should stop trying to remodel your body into a size that is abnormal for your genetics.

2. If you have excess fat to lose, don’t crash diet. Instead, moderately cut back on your calorie intake by only about 20%. Severe dieting commonly results in amenorrhea, suggesting amenorrhea may be your body’s way to adapt to a calorie deficit and conserve calories. By following a healthy reducing program, you will not only have greater success with long-term weight loss, but will also have energy to exercise well.

3. If you are at an appropriate weight, practice this simple rule for eating: Eat when you are hungry, stop when you are content. You were born with a natural ability to regulate your food intake but probably lost it as you began to diet. Now, you may have to relearn how to listen to your body. Rather than feel hungry all the time and constantly obsess about food, listen to your body’s requests for more fuel and respond appropriately by eating larger meals.

Some research suggests amenorrheic athletes consume about 500 fewer calories than their regularly menstruating counterparts. Other research questions this data and suggests amenorrheic women who maintain their weight do indeed eat the calories they deserve—but they tend to follow non-traditional eating patterns (undereating during the day, overeating at night, splurging on weekends). This chaos may interfere with internal health—and regular menses. If you have erratic eating patterns that stem from a fear of getting fat, remember that eating balanced meals on a regular schedule is your best bet for achieving and maintaining an appropriate weight for optimal health. A dietitian can help you stabilize your eating.

4. Eat adequate protein. Some research indicates amenorrheic athletes tend to eat less protein than their regularly menstruating counterparts. A safe protein intake is 0.5 to 0.75 grams per pound of body weight (1 to 1.5 gm Pro/kg). This is higher than the current 0.4 gm Pro/lb recommended for...
sedentary people and allows a margin of safety to reduce the possibility of a protein deficient diet.

An appropriate protein intake for a 120 pound athletic woman is 60 to 90 grams—the equivalent of three to four 8-ounce servings of lowfat milk or yogurt plus four to six ounces of meat, fish, chicken, or other protein-rich food (beans, tofu) per day. If you do not eat meat, note you need more protein than supplied by a diet based on fruits, vegetables, salads, breads, and grains.

5. Include small portions of red meat two or four times per week. Surveys of amenorrheic runners suggest they eat less red meat (and are more likely to be vegetarians) than their regularly menstruating peers. Even though some red meats can have a slightly higher fat content than do chicken or fish, an overall low fat sports diet can and should accomodate some fat. Getting a little fat via 2 to 4 small servings a week of lean meats may invest in regular menses.

Vegetarian diets are associated with amenorrhea not only among athletes but also the general population. An estimated 27% of vegetarians lack regular menses as compared to only 5% of women who eat meat. Why? Possibly because vegetarian women eat more calories from fiber-rich foods and this reduces their estrogen. (Vegetarians tend to excrete twice as much estrogen as meat-eaters.) The high fiber intake common to vegetarian diets may also affect calcium absorption, another concern for the amenorrheic woman who should optimize calcium intake to maintain bone density.

6. Eat at least 20% of your calories from fat. Some women have the exaggerated perception if they eat fat, they will get fat. Consequently, they skimp on meat and other protein-rich foods because they are afraid of eating fat. Although excess calories from fat are easily fattening, eating 20 to 30% of total calories from fat is appropriate for a heart-healthy sports diet. For most sportsactive women, this translates into about 40 to 60+ grams of fat per day and allows lean beef, peanut butter, (lowfat) cheese, salmon, nuts, and other wholesome protein-rich foods that provide balance to a sports diet. Clearly, this moderate approach offers big nutritional advantages over attempts to eat a very limited no-fat diet.

7. Maintain a calcium-rich diet. Amenorrhea hurts bone health. Hence, you should choose a high calcium diet to maintain bone density. Because you build peak bone density in your teens and into early adult years, your goal should be to protect against future problems of osteoporosis by eating calcium-rich foods today. A safe target is 1,000 to 1,500 mg. calcium per day, the equivalent of three to four servings of (lowfat) milk, yogurt, and cheese, or generous amounts of other calcium-rich foods such as tofu, broccoli, kale, dark green leafy vegetables, and calcium-enriched orange juice.

Although you may hesitate to spend your calories on milk, remember that milk is not an "optional fluid" but rather a fundamental food. Milk—and yogurt—contain many important nutrients other than calcium, such as riboflavin (to help convert food into energy) and protein (to protect muscles). Yogurt often has more calcium than milk, and is a fine alternative to drinking glasses of milk.

If you are eating a very high fiber diet that includes generous amounts of bran cereal, fruits, and vegetables, you may have an even greater need for calcium because the fiber may interfere with calcium absorption. Be sure to eat calcium-rich foods with each meal plus snacks.

Calcium is only one factor that affects bone density. Other factors include:
- your genetic predisposition to osteoporosis.
- your weight. Heaviness increases bone density.
- your exercise program. Weight-bearing and strengthening exercises protect your bones.
- how much estrogen your body produces. Estrogen protects against calcium loss.

Your bones benefit from the protective effect of exercise, but this does not compensate for lack of calcium nor lack of estrogen.

IS THERE LONG TERM DAMAGE?

Amenorrheic women who resume menses can restore some of the bone density lost during their months of amenorrhea but not all of it, unless they are teenagers. Hence, your goal should be to eat wisely and resolve the problem quickly. If you struggle with making the nutrition and exercise changes that would enhance resumption of menses, you might want to look at the bigger picture. That is, why do you so rigidly control your diet, weight, and exercise program? This desire for control, in addition to a drive for perfection (having the perfect diet and the perfect weight) may be entangled with life issues that could be better addressed by a counselor than a nutritionist or gynecologist.
If you have excess body fat you want to lose, you must understand that diets don’t work! To lose weight healthfully and successfully keep it off, you should look at your eating. After all, eating contributes to weight problems, in particular the overeating that commonly occurs after blowing a strict diet.

Strict diets rely upon willpower. Strict diets leave you feeling denied and deprived of one of life’s pleasures—food. Rather than diet, you should learn how to healthfully eat diet portions of any food you currently enjoy and would like to eat for the rest of your life. Healthful eating offers more long-term success than does crash dieting. Healthful eating also ensures adequate intake of vitamins, minerals, protein, and carbohydrates—all nutrients you need to exercise at your best.

The following eating tips can help you successfully lose weight plus have energy to exercise at your best. Plan to gradually lose weight at the realistic rate of about 1% of your body weight per week. Even athletes like wrestlers who have to "make weight" can use these tips to lose weight and keep it off.

Twelve Steps for Successful Weight Reduction

#1. Write down what you typically eat in a day, then evaluate your meal patterns and eating habits. Do you nibble all afternoon? Devour huge dinners? Eat nonstop at night?

If you eat very little during the day but then indulge at night, experiment with eating a bigger breakfast, lunch, and a planned afternoon snack. This will help you be less hungry at dinner and be better able to eat a smaller dinner.

By giving yourself permission to eat more calories during the day, you will not only have more energy to exercise, you will also prevent yourself from getting too hungry. Generally speaking, people who become ravenous at night don’t care about what they eat, nor how much they eat. They simply feel the urge to overeat.

#2. To lose weight, you have to create a calorie deficit. That is, you have to burn off more calories than you eat. Knowing your calorie budget and the calorie content of foods can be helpful to prevent over- and under-eating. You can educate yourself about calories and portion sizes by reading food labels and, once or twice, measuring foods such as cereal, milk, rice, and pasta so you can learn how much food fits in your calorie budget. Because most people repeatedly eat the same ten to fifteen foods, learning the proper portions is a manageable one-time task.

Calculating Calorie Needs

To determine the appropriate number of calories for your reduction diet, you first need to estimate your maintenance calories:

- Multiply your appropriate weight by 10 to determine your resting metabolic rate (RMR, the amount of calories you need to simply lay in bed all day and breathe). The RMR accounts for about half to two-thirds of total calorie needs. Example: 130 lbs x 10 = 1,300 calories for RMR
- Add about half of that number for moderate daily activity excluding your purposeful exercise program. If you are generally sedentary or very active during the day, adjust the daily activity calories by adding or subtracting 10 to 20%. Example: 0.5 x 1,300 = 650 cals for daily activity

1,300 calories for resting metabolic rate
+ 650 calories for moderate daily activity
1,950 calories without exercise

- Next, add the calories burned during your exercise program. The following chart can help you estimate your calorie expenditure for some popular sports. It is based upon body weight and calories burned /minute of activity:

```
<table>
<thead>
<tr>
<th>Activity</th>
<th>110</th>
<th>130</th>
<th>150</th>
<th>170</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biking, 13 mph</td>
<td>8.5</td>
<td>10.0</td>
<td>11.5</td>
<td>13.0</td>
</tr>
<tr>
<td>Running, 8 min/mile</td>
<td>10.8</td>
<td>12.5</td>
<td>14.2</td>
<td>16.0</td>
</tr>
<tr>
<td>Squash</td>
<td>10.6</td>
<td>12.5</td>
<td>14.4</td>
<td>16.3</td>
</tr>
<tr>
<td>Swimming, hard</td>
<td>7.8</td>
<td>9.2</td>
<td>10.6</td>
<td>12.0</td>
</tr>
<tr>
<td>Walking, normal pace</td>
<td>4.0</td>
<td>4.7</td>
<td>5.4</td>
<td>6.2</td>
</tr>
</tbody>
</table>
```

Example: A 130 lb runner would burn about 12.5 cals/min x 30 mins. = 375 exercise calories.

How many calories do you need?

Your weight ______ x 10 = ______ RMR calories
+ 50% x _______ RMR = ______ Daily activity
+ ___cals/min x ___ = min = ______ Exercise calories

Total daily calories: ______ Maintain weight
Total ______ - 20% ______ = ______ Lose weight


Example: A 130 lb runner would burn about 12.5 cals/min x 30 mins. = 375 exercise calories.
NOTE: This calorie calculation is a rough estimate of your calorie needs. You may burn more calories or fewer calories, depending on many factors unique to your body. For example, people who constantly fidget need more calories than do mellow folks! A registered dietitian can help you more accurately determine your energy needs.

#3. Subtract 20% of your maintenance calories to determine an appropriate calorie target for weight loss. For example, if you maintain your weight on about 2,000 calories, you should plan to lose weight on about 1,600 calories. Note that petite athletes (i.e., skaters, gymnasts, dancers) will subtract fewer calories than will bigger athletes (football players, body builders). If you cut back more than 20% of your normal intake, you will likely become ravenously hungry and be at high risk for blowing your diet.

#4. Organize your eating into a balanced plan. For example, divide a 1,600 calorie diet into three meals plus snacks, such as:

- Breakfast 500 calories
- Lunch 500 calories
- Snack 100 calories
- Dinner 500 calories.

Be sure to spend enough calories during the day so you will have plenty of energy to exercise at your best. Daytime meals invest in your ability to “diet” at night because you will be less hungry. You will not gain weight by eating a substantial breakfast or lunch. But you will gain weight if you skimp on these meals, get too hungry, and then overeat in the evening.

#5. Eat slowly. Overweight people tend to eat faster than their normal-weight counterparts. You should try to pace your eating because your brain needs about 20 minutes to receive the signal that you have eaten your fill. No matter how much you consume during these twenty minutes, the satiety signal won’t move any faster. Practice chewing slowly, putting down the fork between bites (rather than eating non-stop), tasting the food, and savouring it.

#6. Once a week, plan a “maintain weight day” and enjoy (a reasonable portion of) birthday cake or other special meal. This will help you honor your reducing program when tempted at other times. When enjoying this special meal, eat it slowly to fully appreciate the taste. After all, the best part about food is the taste.

#7. Keep away from food sources that tempt you. For example, read the newspaper in the living room rather than the kitchen. Avoid jogging past the bakery. Stand away from the buffet table at a party. By keeping food out of sight, you will be more likely to keep it out of your mind, and out of your mouth.

#8. If you tend to eat because you are bored, stressed, tired, or lonely, make a list of ten activities you can do instead of eating: water the plants, take a bath, call a friend, work on a jigsaw puzzle, go for a walk, go to sleep, read a fun book.

#9. If you eat because you are stressed, learn how to handle stress and anxiety without over-eating. Take steps to resolve the real problem. Recognize no amount of food will satisfy anxiety-hunger.

#10. Think positive. Every morning before you get out of bed, visualize yourself eating appropriately and achieving your nutrition goals. This will help you start the day with a positive attitude. Continually remind yourself that you would rather be leaner than overeat.

#11. Measure fat loss by looking at yourself naked in the mirror. If you see—and pinch—less fat, you have less fat! If you weigh yourself, do so once a week first thing in the morning, after you have gone to the bathroom and before you have eaten. Don’t weigh yourself after exercise or at night; that gives a false weight! Remember, if you are building muscle while losing fat, the scale may not change but your body will look different and your clothes will feel looser.

#12. Be proud of your healthy eating patterns and keep reminding yourself that when you eat well, you not only feel better, but you also feel better about yourself. Plus, you have enough energy to exercise and enjoy life.
In order to gain weight, you have to eat more calories than you expend. Theoretically, this means eating an additional 500 calories per day to gain one pound per week. Some people, however, have difficulty gaining weight and have to eat far more than that, perhaps an extra 1,000 calories per day. Easy ways to boost calories include eating:

- an extra snack, such as a peanut butter and jelly sandwich with a glass of milk at bedtime.
- larger-than-normal portions at meals, such as two sandwiches instead of only one.
- higher calorie foods, such as cranapple instead of orange juice.

Protein: Many people who want to gain weight think a high protein diet will help them bulk up. False. Extra exercise builds muscle, not extra protein. Although you may need a little extra protein to build muscle, your normal diet likely offers plenty.

The average American diet generally contains about twice the recommended amount of protein. Hence you do not need to spend money on protein pills, powders, and special supplements. Instead, spend your money on wholesome carbohydrates such as juice, bananas, and raisins. These carbohydrates will fuel your muscles and enhance your ability to do muscle-building exercise that, along with dietary protein, will add bulk.

Fats: Although fats are the most concentrated form of calories, you can successfully and healthfully gain weight by choosing a variety of wholesome foods and not simply "fat loading." If you insist on boosting your calories with high fat foods, at least make heart-healthy choices such as peanut butter, nuts, soft tub margarine, canola oil, olive oil, and salad dressings made with olive oil. Limit your intake of saturated fats (bacon, butter, juicy steaks, ice cream.)

The following suggestions can help you boost your calorie intake. In addition, read the calorie information on food labels to compare foods so you can make the highest calorie choices.

**JUICE:** Apple, cranberry, cranapple, pineapple, grape, and blended juices have more calories than grapefruit, orange and tomato juice. To increase the calories in frozen orange juice, add less water than the directions suggest.

**FRUIT:** Bananas, pineapple, raisins, dates, dried apricots and other dried fruits have more calories than watery fruits (grapes, plums, peaches).

**MILK:** To boost the calorie value of milk, add 1 cup powdered milk to one quart of 2% milk. Then add Carnation Instant Breakfast, Nestle's Quik, Ovaltine, malt powder, or other flavorings. By mixing these by the quartful, they will be ready and waiting for you in the refrigerator. You can also make blender drinks such as milk shakes and fruit smoothies.

**COLD CEREAL:** Choose dense cereals (rather than flaked and puffed types), such as granola, muesli, Grape-Nuts, and Wheat Chex. Top with bananas, raisins, and other fruits.

**HOT CEREAL:** By cooking hot cereal with milk instead of water, you'll boost both calories and nutritional value. Add lots of mix-ins, such as powdered milk, margarine, peanut butter, dried fruit, walnuts, sunflower seeds, wheat germ, and banana.

**TOAST:** Spread with generous amounts of jam, honey, and/or peanut butter.

**SANDWICHES:** Select hearty, dense breads (as opposed to "fluffy" types), such as multi-grain, honey bran, rye, pumpernickel. The thicker the slices, the better! Spread with a modest amount of margarine or mayonnaise. Generously stuff with turkey, chicken, lean roast beef, low fat cheese and other sandwich fillings. Peanut butter & jelly is an inexpensive, healthful, calorie-rich choice.

**SOUPS:** Hearty lentil, split pea, minestrone and barley soups have more calories than do broth chicken and beef types (unless the latter are chock-full of vegetables and meat). To make canned soups such as tomato or chowder more substantial, replace water or regular milk with evaporated milk, or add extra powdered milk. Garnish with (low fat) cheese and croutons.
MEATS: Although beef, pork, and lamb tend to have more calories than chicken or fish, they also tend to have more saturated fat. Hence, you should eat fatty meats in moderation, and carefully select the leanest cuts. You can boost the calorie value of lean meat, chicken, or fish by sautéing them in olive oil, canola oil, or margarine, as well as by adding wine sauce and bread crumb toppings.

BEANS, LEGUMES: Lentils, split pea soup, chili with beans, bean burritos, hummus, and other foods made with dried beans are not only calorie-dense but also are excellent sources of vitamins, carbohydrates and protein.

VEGETABLES: Peas, corn, carrots, winter squash, and beets have more calories than green beans, broccoli, summer squash, spinach, and other watery vegetables. Top with olive oil, margarine, slivered almonds, or grated cheese.

SALADS: What may start out being low calorie lettuce can be quickly converted into a substantial meal by adding cottage cheese, garbanzo beans (chick peas), sunflower seeds, assorted vegetables, chopped walnuts, raisins, tuna fish, lean meat, croutons, and salad dressing (preferably made with olive oil).

POTATO: Add margarine and extra powdered milk to mashed potato. On baked potato, use butter and gravy sparingly because these saturated fats are poor choices in terms of heart health. (Lite sour cream, margarine and lowfat gravy are better options.)

DESSERTS: By selecting desserts with nutritional value, you can enjoy a treat as well as nourish your body. Try frozen yogurt, oatmeal raisin cookies, Fig Newtons, chocolate pudding, stewed fruit compote, or pumpkin pie. Even blueberry muffins, corn bread with honey, banana bread, and other sweet breads can double as dessert, as can the whole grain muffins and breads available in health food stores and bakeries.

SNACKS: A substantial afternoon and/or evening snack is an excellent way to boost your calorie intake. If you don’t feel hungry, just think of the food as a “weight gain medicine” that you have to take. Some healthful snack choices include fruit-flavored yogurt, frozen yogurt, (low fat) cheese and crackers, peanuts, almonds, sunflower seeds, trail mix, granola, granola bars, energy bars, pretzels, English muffins, bran muffins, (whole grain) bagels, peanut butter crackers, milk shakes, instant breakfast drinks, hot cocoa, dried fruits, bananas, pizza and sandwiches.

ALCOHOL: For adults, a glass of beer or wine, along with accompanying snacks such as peanuts and pretzels, can add extra calories and stimulate the appetite. Because alcohol offers little nutritional value, do not substitute it for juices, milk or other wholesome beverages.

CONCLUSION

By taking the prescribed 500 to 1,000 additional calories per day, you should see some weight gain. Be sure to perform muscle-building exercises two or three times per week, so you bulk up rather than get fat.

If you don’t gain weight after two weeks of consistently eating more calories at three meals every day plus snacks, look at your family members to see if you have inherited a naturally trim physique. Observe your personal activity patterns: Are you a “fidgeter” who burns every calorie you consume? Perhaps you need to be more mellow!

Also keep in mind most skinny people gain weight as they get older. Your turn will likely come too. Until then, work on your athletic skills and enjoy being lean, light, quick. Remember: you can be a good athlete without being bulky.
TWELVE TIPS FOR THE ATHLETE WITH DIABETES

1. Exercise is a cornerstone for managing diabetes. You need to learn your body’s unique response to exercise by monitoring your blood glucose level, insulin dosage, what and how much food you ate, and type and intensity of exercise for 1-2 months to achieve a sense of predictability. General guidelines cannot replace intelligent self-observation.

2. Exercise regularly, preferably at the same time each day when your insulin is not peaking. A consistent exercise schedule is very important for good blood glucose control. Be sure to test your blood glucose before and after you exercise to learn how exercise affects your glucose level.

3. Always exercise after eating, when your blood glucose is on the rise. One hour after a meal is a good time; that is when your blood glucose is the highest. Do not start to exercise with low blood glucose. Eat a snack first.

4. Exercise with someone else. This person should know you have diabetes, and know the signs of hypoglycemia (confusion, weakness, excessive sweating, trembling, double vision). If your blood glucose should drop, you might stagger and fall; you want your partner to know what is happening. (Sometimes people with diabetes get mistaken for alcoholics.) Also be sure your partner knows what to do in an emergency.

5. Always carry sugar in some form with you. (Glucose tablets and hard candies are popular because they are not messy.) Also carry a cell phone and money for a snack.

6. To best determine your food and insulin needs, monitor your blood glucose under varying conditions: for instance, compare training sessions and competitions, or morning vs. afternoon workouts. You should redetermine your food and insulin needs when the weather changes from hot to cold.

7. If you are going to participate in a one-shot bout of high activity (such as an unexpected basketball game), you should eat some food beforehand and you may want to reduce your insulin. Through experience, you’ll learn about your body and what food and insulin strategy works best for you.

8. As an athlete with diabetes, you have an impaired ability to store and mobilize carbohydrates in the right amounts at the right times. Hence, if you are an endurance athlete, you should not try to “carbohydrate-load.” Rather, plan to eat extra calories during exercise longer than 60-90 minutes.

9. During long-term exercise, plan to constantly replace glucose supplies. When swimming, you may need to pop out of the pool after 50 laps to drink a juice box; during a marathon, you’ll want sports drinks or snacks along the route. Target 240 calories (60 gm carb) per hour. Experiment with different foods (juice, gels, raisins, hard candy, bread) to determine the type and amount of food that settles well and enhances your performance.

10. On a long day trip, such as hiking or cycling, eat at least six small meals containing both carbohydrate and protein. Be overprepared with emergency food in case you get unexpectedly delayed. Either bring plenty of extra food for everyone, or explain to your friends beforehand why you are unwilling to share the food.

11. Drink plenty of fluids before and during exercise to prevent dehydration. If your urine is a dark color and a small volume, you are dehydrated and need more fluid. Carry a water bottle with you to easily enhance your fluid intake.

12. Because exercise has a lingering effect, you should eat more than usual after you stop exercising. Otherwise, you may experience hypoglycemia that night or even the next day.
THE COMPULSIVE ATHLETE: Thoughts about food

Many people who exercise compulsively have inflexible eating patterns and obsess about their weight. They tend to be perfectionists and have a great desire for control. These traits are also characteristic of people who grew up with alcoholism, divorce, and other family dysfunctions. Compulsive athletes generally have carried with them into adulthood personality traits that now affect their attitudes towards their food, weight, and exercise habits.

The following traits are characteristically observed in people who grew up with some type of family dysfunction. If you are a compulsive exerciser, this information may give a helpful perspective on your relationship with food.

DRIVE FOR PERFECTION: As a child, you may have tried to be perfect, with hopes it would elicit praise and recognition from your (alcoholic) parent. You also may have hoped that by being perfect, you would somehow be able to "cure" the family of its problem. As an adult, you may still strive for perfection. You expect yourself to have a perfect physique, eat the perfect diet, and maintain a perfect training schedule. You constantly push yourself to live up to these demanding expectations; you punish yourself if you fall short. You may lack a healthy perspective on food, weight, and exercise.

DESIRE FOR CONTROL: Compulsive athletes generally have an inordinate need for control. If, as a child, you were unable to control your (alcoholic) parent, you may now overreact and seek areas of your life that you can control: your diet, weight, and exercise program. You may set up rigid rules and regulations, such as:

- Ritually running eight miles every day despite weather, aches, illness, fatigue, or holidays.
- Restricting fatty foods. That is, no birthday cake, ice cream, salad dressing, or peanut butter for you. Other people can eat these foods, but you must avoid them to remain perfectly thin.
- Monitoring your weight daily. If the scale reads higher than your "perfect weight", you punish yourself by exercising more, eating less.

You mercilessly judge yourself according to these rules. You are either "good" or "bad"; you lack flexibility and spontaneity. For example, if your friends unexpectedly suggest eating dinner together, you may decline in favor of running the obligatory eight miles and eating at home so you can prepare your own "safe" foods.

BEHAVE COMPULSIVELY: Compulsive athletes often have other compulsive behaviors; they are not only exercise-aholics but also may be workaholics and/or foodaholics.

- As a workaholic, your demanding schedule may interfere with healthful meal patterns. For example, you may have "no time" to eat lunch, so you instead survive on coffee. This calorie-free (that is, "perfect") meal simultaneously helps you maintain your perfect weight.
- Workaholics are often foodaholics. As a reaction to the stresses at work, you may reach towards food. Rest and relaxation could perhaps offer better nourishment and energy, but you feel guilty if you "do nothing" or relax. Hence, mindless eating becomes your excuse for a rest break from the constant push to work hard.
- To compensate for compulsive eating, foodaholics often become exercise-aholics, using exhaustive exercise to burn off binge-calories and retain a perfect weight. This vicious cycle of work, food, and exercise abuse often lacks a healthy balance.

ASSUME TOO MUCH RESPONSIBILITY: Having a compulsive personality, you may tend to take care of everyone but yourself, perhaps as you did as a child when you assumed inordinate amounts of parental responsibilities such as cooking, cleaning, shopping, and caring for your siblings. You also may have assumed the responsibility of trying to "cure" the family's pain. As an adult, you may take on too many responsibilities both at work and at home. You generally have trouble saying no, believing "If I don't do it, no one else will." You need to learn to "let go" and trust that others will take over.

FEEL INADEQUATE: Despite your many accomplishments (being a perfect worker, having a perfectly slim physique, maintaining a high fitness level), you still feel inadequate and believe that you could have done better. After all, you were never able to quite please your (alcoholic) parent, so how could you ever please anyone else? Plus, you may have failed at resolving the parent's (drinking) problem.

Hence, you relentlessly push yourself to be better. You train harder, diet harder, work harder. This constant feeling of inadequacy may drive you to exhaustion; you may abuse food as a reward and exercise as a stress reliever.
HAVE DIFFICULTY HAVING FUN: You tend to feel guilty if you "let go" and relax. If as a child, your (alcoholic) parent put a damper on the mood in the house, you may have rarely enjoyed childhood fun, nor heard your parents laughing. Now, as an adult, you may still have difficulty "playing." You may feel awkward in a group --different from others and isolated. Hence, you are more comfortable and feel in better control when you work or exercise. When and if the overworking leads to overeating, you simply exercise more. You have more fun running or biking by yourself.

TROUBLE WITH CLOSE RELATIONSHIPS: As a child, you may have felt unloved and abandoned. As an adult, you now may feel unworthy of being loved and afraid of being abandoned. Rather than let a partner get too close, you opt for predictable and "safe" activities that you can do alone--including working, exercising, and eating.

DENIAL OF FEELINGS: As a child growing up in an distressed home, you quickly learned to deny feelings of sadness or anger and instead pretend to the outside world that everything was fine. Now, as an adult, you may continue to deny that you are hungry, tired, lonely, depressed, or sad. You may bury yourself in work, exercise, or food.

For example, rather than stay home and confront your loneliness, you may exhaust yourself with an inordinate amount of exercise and then treat yourself to an ice cream sundae. Somehow, chocolate can wonderfully smother the emptiness of the present, the pain of the past, the fear of the future ... but only temporarily.

WHAT TO DO: If these characteristics sound familiar, and if you feel as though your life isn’t working for you, you might want to seek guidance from both a sports nutritionist and a counselor skilled with addressing addictive behaviors. These specialists can help you focus your energy and allow you to establish a better balance between food, weight, and exercise.

Many compulsive athletes have also been helped through Alcoholics Anonymous groups for Adult Children of Alcoholics. Whatever the route, your goals can be to learn how to: train healthfully and not exhaust yourself; be gentler with yourself, not constantly punish yourself; and be your own nice friend.

SUGGESTED READING
Numerous self-help books can provide further information on this delicate topic. For a catalogue of recommended reading call 1-800-756-7533, check the website www.bulimia.com or write--

Gurze Books, P.O. Box 2238, Carlsbad, CA 92018
Their Eating Disorders Bookshelf Catalogue includes numerous books on eating disorders, addictions, and body image; it is a helpful resource. Listed below are just a few titles.

Feeding the Empty Heart: ACOA and Compulsive Eating by Barbara McFarland.
Hooked on Exercise: How to Manage Exercise Addiction by Rebecca Prussin.
Breaking Free from Compulsive Eating by G. Roth.

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