

## Fueled for Fitness

These no-fail active-lifestyle and diet tips will keep you from running out of steam

By Debra Rouse, ND

If you are passionate about exercise, you know that the foods and supplements you choose before, during, and after a workout can have a huge impact—not only on your physical performance, but also on your recovery, mood, sleep, and general sense of well-being. There's nothing worse than knowing you are doing positive things for your body, yet still feeling drained and sick. This is where nutrition and nutrient timing come into play.

How do you determine the best nutritional strategy to go along with your workouts? Much of this depends on the type and duration of exercise you are doing. Fad diets are not going to cut it here. Nor is the all-or-nothing approach where you focus on one major macronutrient (protein, for example) and eat almost nothing else. A diverse, nourishing diet and supplement regimen can improve your performance and overall fitness. What you eat and when you eat can be the difference between losing weight and gaining muscle, sleeping well or not, and being happy or cranky.

### Quality Carbs for Energy

Carbohydrates are the main source of fuel for muscles at work. Most athletes should maintain a diet consisting of at least 40 percent but generally no more than 70 percent carbs. After we consume carbs, the body further breaks them down into glucose (sugar), which is then transported to muscles and other tissues for further breakdown and storage as glycogen. Carbs make up a huge category of foods. Most fruits, vegetables, grains, cereals, and sweets fall under this category, yet they can't all be treated as equals. A sweet potato is going to fuel the body considerably longer than a bag of potato chips, for example. How can you determine a quality carbohydrate? Look to the glycemic index to help you out.

The glycemic index (GI) is a way to identify and categorize foods based on their effect on blood glucose levels. Low GI foods produce a minor, steady increase in blood sugar, while high GI foods produce a more significant but temporary spike in blood sugar. In general, high-fiber foods have a lower GI than low-fiber foods, and simple sugars have a higher GI. We generally look to the lower GI foods to sustain blood sugar throughout the day, but when it comes to exercise, the higher GI foods can be extremely useful right before, during, and immediately after working out. These higher GI foods provide energy and help reduce cortisol levels. Cortisol, a hormone produced by our adrenal glands, is released when blood sugar is low and during intense exercise, such as heavy weight lifting. Although the body typically first uses carbohydrate, then fat, then protein, as fuel for muscles during intense exercise, under stress (intense weight training, for example), the body will release more cortisol, which can result in inflammation as well as the dreaded "plateau" that many athletes complain about.

### Protein and Fat Basics

Protein and fat also play a vital role in eating to sustain your workouts. While protein is key to muscle repair and growth, most people don't need to supplement their diet with protein supplements and/or powders. Organic lean meats, fish, dairy, eggs, nuts, seeds, tofu, and tempeh will usually handle our protein needs. Still, the convenience and portability of protein powder is an attractive option for when you're short on time. One serving per day of any protein powder is enough to supplement your diet. Protein should make up roughly 20 to 35 % of your diet.

Fat is also important for muscles, but aim to get most of your fat from unsaturated sources, such as nuts and seeds, nut butters, fish, and vegetable oils. Fat should make up roughly 20% to 30% of your diet.

## Timing Is Everything

The timing of meals and snacks is an absolutely essential component of fueling for fitness. If you love to exercise in the morning, keep in mind that low blood sugar levels can result in a less than inspired workout. Rolling out of bed and hopping immediately on the treadmill could be a recipe for disaster

So for those who prefer to exercise on a mostly empty stomach, know that consuming a small snack at least 15 minutes prior to beginning a morning workout can be beneficial. This may mean grabbing a cup of dry cereal, eating a small banana, having a cup of fruit juice, or a small handful of almonds.

If you like to spend your lunch hour at the gym, be sure to eat a regular balanced breakfast that combines all the macronutrients (carbs, protein, fat). Then about a half-hour before your workout, eat a small carbohydrate-rich snack. Again, this could be a small piece of fruit, a cup of yogurt, an energy bar (no more than around 200 calories) or even a small nonfat latte—we'll discuss caffeine shortly. Take note that while fiber is essential to overall health and well-being, eating a high-fiber snack pre-workout is not such a great idea. Save the high-fiber foods for after your workout or several hours before exercise.

### Morning, Noon, or Night?

All of us have ideal workout windows within our day. Only you know the time that works best for you, based on your eating schedule and individual energy cycles. Evening exercisers should follow the example laid out for the daytime exercisers, with a few words of caution. While people who exercise during the day tend to sleep better at night (in general), exercising too late in the day may actually increase your chances for insomnia or make it difficult to fall asleep. The same goes for eating large meals at night, which evening exercisers have a tendency to do. If circumstances prevent you from working out earlier in the day, then by all means, get it in when you can. Just take caution not to engage in excessive exercise late into your evening.

### Weight Loss and Exercise

A big mistake is to restrict your diet in order to lose weight faster. One of the downsides of this unhealthy habit is that your exercise performance dwindles. If you are truly looking for sustainable results and improvement in your workouts, you must fuel up properly to make it happen. As a general rule of thumb, women and men engaged in regular exercise should aim for no fewer than 1,200 and 1,400 calories daily, respectively. Keep in mind these are very low numbers. Most active women maintain their weight taking in around 2,000 calories daily. Consider consulting a nutritionist to determine your personal daily calorie needs.

### Replenish with Vitamins

Exercise ability can be sabotaged by a lack of essential vitamins and minerals because they are needed to release energy from the food you eat. Sticking with a healthful, well-balanced diet should provide adequate nutrition, but stress and other unhealthy lifestyle factors may interfere with getting what we need. In that case, a good multivitamin/mineral formula with extra antioxidants is a good place to start. Calcium and magnesium are also beneficial. These nutrients fuel muscles (including the heart), help keep bones strong, and may help prevent muscle soreness and fatigue. Essential fatty acids, specifically omega-3s, and vitamin E have been shown to help reduce muscle soreness and inflammation that can result from overexertion, thus allowing for speedier recovery. While a mild iron deficiency can impair a workout, too much iron can be harmful. Get your iron status tested (through a blood test) to see if you really need more of this mineral. In fact, it's a wise idea to have a complete blood chemistry screening annually, including a thyroid and cholesterol panel.

## Be Smart About Beverages

Finally, proper hydration is imperative. It should go without saying that water is critical to proper hydration before, during, and after a workout. Drink at least one glass of water before your workout, another after your workout and every fifteen minutes or so during an endurance activity (treadmill, bike, elliptical, tennis, swimming). Avoid caffeinated beverages like soda, coffee, and tea during exercise, since they act as diuretics and could exacerbate dehydration. If you already consume caffeine on a regular basis, using caffeine to boost your workouts is not a wise move in the long run. Our bodies adapt to caffeine intake, so frequent and regular consumption loses its effect—you have to keep drinking more and more to achieve the same results. It's also unwise to try caffeine before, say, a racing event, when you are not a regular consumer of caffeine—it could leave you running for the porta-potty rather than the finish line.

If you find yourself running out of steam on a regular basis, take a look at your lifestyle, exercise regimen, and eating and sleeping habits. You may need to make some changes. If you have trouble determining your source of fatigue, see a doctor.

If you are looking for reasons to begin a fitness program, remember that besides making it easier to control your weight, exercise helps reduce stress, improve sleep, improve mood, and decreases your risk for heart disease, diabetes, osteoporosis, high blood pressure, and other conditions. But you already knew that. There are few really good excuses not to exercise. If you think you don't have the time, give up an hour a day of television, wake up an hour earlier, or take a walk during your lunch hour. If you feel you don't have the energy, consider having your thyroid tested, and ask your doctor about performing a stress test to determine how well your heart is working. And remember that exercise begets energy. It becomes easier and more enjoyable the more you do it. You just have to start.

## SIDEBAR

Good food choices for before, during, and after working out include the following:

**Before:** Try a small glass of fruit juice or **mix1 Lean Performance (90 calories & 10g of protein)**; whole-grain cereal with skim milk; a rice cake with nut butter; nonfat or low-fat natural yogurt; a snack bar (look for one without high fructose corn syrup, sugar alcohols, or partially hydrogenated fats); a nonfat chai or latte (choose decaf unless you really are looking for a boost); string cheese and a small serving of fruit, small handful of almonds or nuts (about 15).

**During:** Food is usually unnecessary; however, for longer endurance workouts (more than an hour), try Shot Bloks and Shot Energy Gels from the makers of Clif Bar. Both contain organic brown rice syrup, which provides easily assimilated carbohydrates for working muscles, and a small amount of electrolytes.

**After:** This is the most critical time for refueling. Because glycogen stores are often depleted after strenuous exercise, they should be restored within 30 minutes post workout. This is best achieved with a small snack containing carbs and protein. This also helps repair damaged muscle tissue. Here are a few good ideas:

- **mix1 enhanced protein shake (200 calories & 15g protein)**
  - Plain yogurt and fruit with a tablespoon of chopped nuts
  - A half sandwich with lean deli meat on whole-grain bread
  - Whole-grain bagel with peanut butter
  - Oatmeal with berries and nuts
  - Soup and crackers
  - A homemade fruit smoothie enhanced with protein