Stronger Bones, Stronger Muscles, Stronger Running

Boost your efforts by eating the right stuff

By Dave Kuehls

It's the week of the conference track meet and you're in the best shape of your life. The previous week you ran your best mile ever and now all you have to do is taper off and let a season's worth of training pay its dividends on Saturday.

Yet, you are worried about one thing: Last year you were also poised for the conference meet with great anticipation, only to come down with a bad cold three days beforehand. On the starting line, you stood there with a scratchy throat, runny nose and heavy eyelids from coughing all night long. The gun went off. And your race was a disaster.

This season, aside from quarantining yourself to prevent a cold, what can you do?

Well, for one thing, you can eat. Yes, eat. The right foods—orange juice for starters, but more on that later—can help boost your immune system. In addition to warding off colds, the right foods can also help young runners build strong bones, boost endurance, stay strong and help you recover from a race or hard workout.

Of course, vitamins and supplements can also help fortify you. But, instead of taking a pill why not have some tasty food? "Besides, if you eat the right foods," says 2:15 marathoner Peter de la Cerda, "you might find out that you don't need the supplements."

POWER FOODS FOR STRONG BONES:

To build strong bones and help prevent stress fractures, make sure you eat foods packed with calcium. Dairy products are your best bet. These foods can be consumed at every meal during the day. If dairy does not agree with you, skip dairy in your meal directly before a workout or race; if you are lactose intolerant, drink soy milk to get your calcium. And, if you haven't already cut back on sodas, please do.

"Sodas cause calcium to be leached from the bones," says dietitian Lisa Dorfman, author of "The Vegetarian Sports Nutrition Guide" (Wiley, 2000). A good substitute for soda, if you need something sweet to wash down your lunch or snack, is wholesome fruit juice. Or even better: chocolate milk. That way, you're replacing a calcium-leaching drink with...calcium.

Strong bones grocery list: low-fat milk, yogurt, cheese, cottage cheese, chocolate milk, ice milk. (Also, spinach, broccoli and other dark green vegetables for their vitamin K, which strengthens bones.)

Runners need calcium to strengthen bones and prevent injury, and chocolate milk is a tasty source, along with yogurt and cheese.
POWER FOODS TO BOOST ENDURANCE:

To keep training and racing at a high level during the track season, make sure you eat plenty of carbohydrate to keep your muscle glycogen stores high (glycogen is the fuel you burn when you run). If you don't have enough glycogen, you'll literally run out of gas. Foods rich in carbohydrate include breads, cereals, pastas and fruits.

Carbohydrates should be consumed at every meal during the day, and perhaps more importantly, in between meals, to avoid energy slumps during the day. "Keep healthy carbohydrate-rich snacks, like fruit, pretzels and energy bars, in your car, backpack or at your desk," says American women's marathon recordholder Deena Kastor.

For a pre-run carbohydrate-rich snack, Dorfman recommends energy gels and bars that have malto-dextrin as an ingredient. Malto-dextrin is a "long-chain" sugar that's slow acting, and thus will provide you with extended energy for a race or a hard workout, like a set of repeat 400s, without the risk of a blood-sugar crash.

Boost endurance grocery list: pumpernickel bread, rye bread, whole grain cereals, elbow macaroni, bananas, peaches, apples, pretzels, energy bars and gels.

All runners benefit from pasta power since noodle dishes are rich in muscle fuel and help you stay energized in workouts and races.

POWER FOODS FOR STRONG MUSCLES:

Protein builds muscle. And for this reason many young runners mistakenly think they shouldn't eat protein because it will "bulk" them up, and slow them down. (This cannot happen unless you are also vigorously lifting heavy weights several times a week.) More importantly, protein is needed to keep your muscles strong during the season. Without adequate protein in your diet, you could run well early in the season, then watch your race times gradually fall as you lose strength in your legs and arms.

Good sources of protein are lean meats, chicken, fish and beans. Women's world record holder in the marathon, Paula Radcliffe of Great Britain, reportedly eats ostrich meat for the protein. For digestive purposes, these foods are best consumed after a workout or race, or two meals before a workout or race--say, breakfast for a late-afternoon workout, or lunch for a next-morning race.

Strong muscles grocery list: lean meats, sliced chicken breast, salmon, eggs, kidney beans, peanut butter.

Most nutritionists recommend occasional lean meat for muscle strength, while other protein sources include fish, beans and peanut butter.

POWER FOODS TO PREVENT Colds:

There are a variety of foods that can help keep colds at bay. Citrus, like orange juice and grapefruits, is packed with vitamin C and other antioxidants. But substances like Omega 3 fatty acids, found in cold water fish, also have immune-boosting capabilities, as does any food with zinc. These foods can be consumed during any meal, though if you have a sensitive stomach, you might want to watch citrus just before a workout or race. Also, make sure you take in enough fluids, before, during and after your runs. Research has shown that consuming drinks during a run--say, after the second of your four repeat miles--can help boost your immune system.

Cold preventing grocery list: oranges, carrots, dark meat turkey, lean beef, vitamin-fortified cereals, tuna fish, milk shakes, sports drinks.

An orange a day keeps the doctor away: fresh fruit packed with vitamin C should be on every runner's plate for better performance and better health.
POWER FOODS FOR TRAINING RECOVERY:

For a long time the conventional wisdom said that after a hard run you should eat pure carbohydrate--because that is what you burned up. Yet more and more runners are adding protein to the carbohydrate to enhance recovery.

"Researchers have reported that protein in combination with carbohydrates produces a greater secretion in the hormone insulin, which is crucial in restocking glycogen stores," says Mary Cordt, a nutritionist at Los Rios Community College in Sacramento, Calif. and a 2-time Olympic Marathon Trials qualifier.

Also, protein helps repair muscles stressed during a workout. So munch on carbo-protein combos that are easily digestible--peanut butter on crackers or a small, tuna fish sandwich--and eat soon after your workout, preferably within 20 minutes.

Training recovery grocery list: peanut butter, crackers, tuna fish, whole grain bread, bananas (with peanut butter).

The most powerful diet for runners has many different foods, an abundance of nutrients and great tastes, as our sample menu demonstrates. And don't forget bananas and peanut butter, sometimes eaten together for a filling, energy-boosting snack.

PUTTING IT ALL TOGETHER-A POWER-FUL DAY

Here's a sample daily menu guaranteed to empower your running:

**Breakfast:**
1 cup calcium-fortified orange juice
2 cups Cheerios with 1/2 cup milk and sliced peaches

**Morning Snack:**
1 banana and a small bag of peanuts

**Lunch:**
Turkey Sandwich, with provolone cheese, romaine lettuce, tomato, onion on whole grain bread.
Pretzels
Cup of milk or fruit juice

**Afternoon Snack:**
Energy bar with water

**Post-run Snack:**
Half a tuna-fish sandwich and Gatorade

**Dinner:**
Spaghetti and sauce (hamburger meat or turkey)
Salad with peppers and onions
Cup of milk or fruit juice
Ice cream or yogurt