

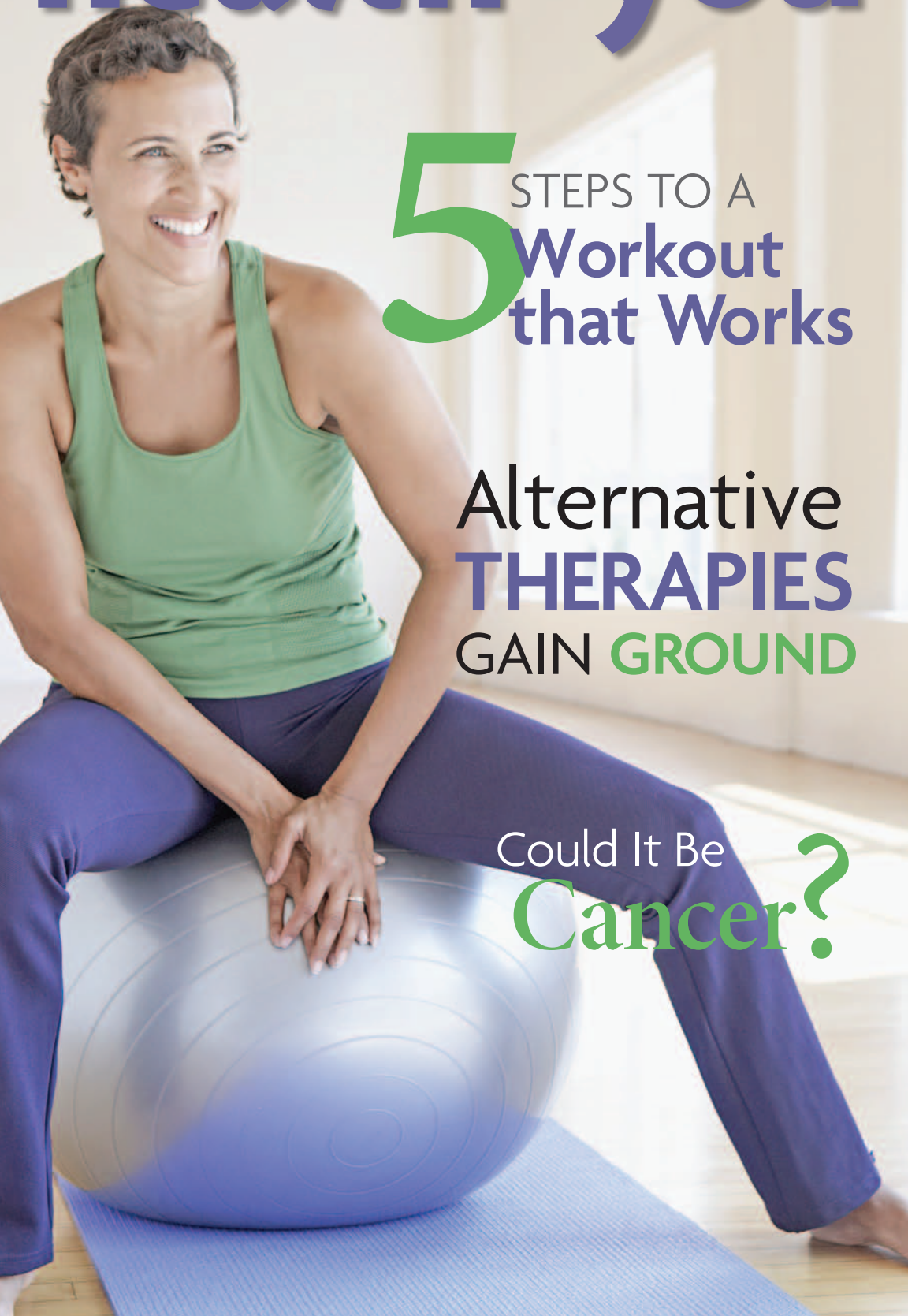
# health *and* you

FALL 2010

## 5 STEPS TO A Workout that Works

Alternative  
**THERAPIES**  
GAIN **GROUND**

Could It Be  
**Cancer?**



# By the Numbers: The Glycemic Index



The carbs in some foods cause a spike in your blood sugar that can leave you feeling hungry—and perhaps affect your health.

**WHEN YOU'RE RUSHED, IT'S EASY TO GRAB A BAGEL ON THE RUN**, cookies from a machine, or fries at the drive-through. You know it's not the healthiest way to go. But besides calories and fat, there's something else to think about—the glycemic index (GI).

The GI measures how quickly the carbohydrates in a food raise your blood sugar (glucose). The higher the GI, the faster your glucose goes up—and that may lead to health problems in the long run.

Developed at the University of Toronto in 1981, the GI was first meant to help people with diabetes choose foods. But others may find it useful, too.

## A Lesson on Carbs

First, it helps to know how your body works. When you eat, you convert digestible carbs into glucose, which gives your cells energy. Glucose also signals your pancreas to make insulin, which helps cells absorb glucose. You digest and convert each food's carbs at different rates.

After a high-GI meal, you may still feel hungry as your body tries to adjust to the rapid rise in glucose and insulin levels. These levels stay high if you regularly eat high-GI foods. And that could increase your risk for obesity, type 2 diabetes, and heart disease.

You digest a low-GI diet more slowly. This *gradually* increases your blood sugar and insulin. You may be less prone to insulin resistance, a risk factor for disease.

## Which Foods Are High?

Scientists have ranked foods' GIs on a scale of 0 to 100. A GI of 55 or less is considered low, 56 to 69 is medium, and 70 or more is high. A food with a GI of 50 raises blood glucose about half as much in a given time as a food labeled 100.

Generally, a food's GI increases the more ripe, processed, or cooked it is. Here are some examples:

- **Low-GI foods:** 100 percent stone-ground whole wheat bread, converted long-grain rice, and nonstarchy vegetables
- **Medium-GI foods:** whole wheat and rye breads, quick oats, and brown rice
- **High-GI foods:** white bread, corn flakes, crackers, and pineapple



A low GI alone doesn't make a food healthy. Lots of healthy foods have higher GIs than foods of little nutritional worth. Chocolate has a lower GI than oatmeal. You

have to balance the GI with basic nutrition principles, such as eating a variety of healthy foods and limiting foods with few nutrients.

After you eat your low-GI steel-cut oats or lentil salad, you may notice your energy is more stable. Because you don't feel hungry



again so soon, you're less likely to overeat. Keep eating a low-GI diet and you may reduce your risk for serious health problems.

## Beyond the GI

The GI deals only with the type of carb in a food and not the total amount in a meal. The total amount of carbohydrate in a meal is the glycemic load (GL). Both GL and GI affect glucose and insulin. The total amount of carbs (GL) may be more important than the GI.

Much has been written about the GI and GL, but questions remain. Some research shows that a high-GI and high-GL diet can increase your chances of heart and blood-vessel diseases, obesity, and type 2 diabetes. Other studies haven't confirmed this.

Most experts agree, though, that people with diabetes can benefit from a diet that considers the GI and GL.

Scientists have suggested other ways to judge how some carbs may increase the risk for obesity and heart disease. One is the fructose index (FI)—the percentage of energy in a food that comes from fructose, another sugar. The other is the fructose load (FL)—the amount of fructose in a serving. Fructose is mostly found in table sugar, high-fructose corn syrup, fruits, and honey. •

—Claire Sykes

## To Learn More

The University of Sydney in Australia offers the glycemic index and glycemic load of many foods at [www.glycemicindex.com](http://www.glycemicindex.com).



## Putting the GI to Work

- Eat foods with a low to medium GI within a balanced diet of fruits, vegetables, healthy fats, low-fat dairy, whole grains, and lean meats.
- Choose foods with fewer refined carbs, but don't skip those that contain healthy vitamins, minerals, and fiber (such as fresh fruits, vegetables, and whole grains).
- Watch portion sizes. Too many carbs—even healthy ones—can cause potential health problems.
- If you eat a high-GI food, combine it with a low-GI food to balance the effects on blood sugar. For example, add milk (a low-GI food) to dry cereal (a high-GI food).
- Look for less-processed grains. For example, eat bread made with stone-ground flour rather than bread made with refined or enriched flours.
  - Limit your intake of high-GI foods, such as potatoes and foods or beverages with added sugar.

