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Just In

Cola, But Not Coffee, Raises Blood Pressure

Boston researchers have found no connection between long-term coffee consumption (caffeinated and decaf) and the development of high blood pressure among almost 30,000 middle-aged women in the Nurses' Health Study, even after accounting for other factors like sodium, potassium and calcium intakes and weight. Caffeine intake ranged from 20 to 600 milligrams a day. While coffee was not a risk factor, cola consumption (regular and diet) was associated with a significantly increased risk.

The researchers suggest that the caffeine in cola may not be the culprit. Rather, it may be some as-yet-unidentified component. If caffeine is responsible, the lack of an effect in coffee may be because java contains antioxidants that overcome caffeine's effects.

The study still leaves open the possibility that coffee drinking might aggravate high blood pressure in people already diagnosed with the condition.

Journal of the American Medical Association, November 9, 2005.

Boosting Metabolism To Lose Weight: What Works, What Doesn't

Dieters often lament that a slow metabolism keeps them from losing weight. Marketers of weight-loss products capitalize on this belief by offering ways to boost metabolism and "melt away" unwanted pounds. Is a faster metabolism really the key to weight loss? And can you really speed up your metabolism?

EN examines the factors that affect metabolism and weight loss and weighs in on ingredients in popular products.

Metabolism Made Easy. Metabolism refers to the way the body uses energy (measured in calories). The body uses calories in three ways: (1) To sustain vital body functions like breathing, heart rate, waste removal, cell growth and cell repair, even

when at rest (amazingly, all this accounts for up to 75% of the calories you burn daily); (2) for physical activity and (3) for digestion and absorption of food, which uses about 10% of a day's calories.

The speed at which the body burns calories when at rest is called your resting metabolic rate (RMR). Everyone's RMR differs and may in part be genetically determined. Some lucky people really do have a higher metabolic rate than others and therefore burn more calories even doing nothing.

The only way to know your RMR is to have a health and fitness professional measure it, such as with a hand-held device called *BodyGem*, for example. It
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Targeting Trans Fats: What You Need To Know About The New Labeling

As we ring in 2006, counting carbs may be passé, but counting trans is decidedly in. As of January 1, the Food and Drug Administration now requires all packaged foods to list grams of trans fatty acids on the Nutrition Facts panel. As a result, manufacturers have been scrambling to reformulate everything from cookies and crackers to pizza and popcorn to eliminate or lower the amount of trans fats in their products—sometimes just enough so they can be called "trans-free," even if they aren't really free of trans fats.

Trans Fats 101. Trans fats form when hydrogen is added to liquid vegetable oil to create a more solid form by a process called "hydrogenation." Trans fats are highest in stick margarines, baked goods like cookies, snack foods like crackers, and commercially fried foods like French fries.

Food manufacturers have used partially hydrogenated oils to replace saturated fats like those in butter and still make products that are more solid at room temperature (like margarines and

spreads). Hydrogenation also extends shelf life and delays rancidity, while making foods moist, flaky and flavorful.

How Terrible Are Trans? Trans fats pack a double health whammy. As with saturated fats, they raise the risk of heart disease by increasing "bad" low-density lipoprotein (LDL) cholesterol levels. But some studies show that trans fats also lower "good" high-density lipoprotein (HDL) cholesterol, which saturated fats do not do. So trans fats are certainly as bad as saturated fats and may be worse.

Moreover, trans fats have negative health effects beyond heart disease. Research has shown links to Alzheimer's disease, macular degeneration, gallstone disease and inflammation (a risk factor for many chronic diseases).

(Some trans fats are found in animal foods like dairy products and meat, but these naturally occurring trans are different from the trans that form as a result of hydrogenation and do not have the same negative health effects.)

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Boosting Metabolism: What Works, What Doesn't

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measures oxygen consumption, which reflects the rate at which your body burns calories. Cutting calories below your RMR is not smart, because your body then shifts into starvation mode, lowering your metabolic rate even more.

"Strength training slows the muscle loss of aging, which helps boost metabolism."

So even if you are eating less, it can actually be harder to lose weight, because your body is fighting to conserve the energy it has stored in body fat.

Here's what you need to know about metabolism and its effect on weight loss:

A is for Activity. People who exercise regularly burn more calories and have more muscle mass than those who are less active. Aerobic exercise, like brisk walking and swimming, burns calories, while strength training slows the inevitable muscle loss associated with aging, which helps boost metabolism.

It's often reported that aerobic and resistance exercise increase metabolism not only while you're exercising, but for several hours afterwards as well. This increase in metabolism is not sustained long-term, however. High-intensity resistance training may have the greatest effect on metabolic rate postexercise, but there are no studies linking the aftereffects of activity with significant weight loss.

Get Your ZZZs. How long you sleep may affect hormones that regulate appetite and body weight. The large, ongoing Wisconsin Sleep Cohort Study found that people who sleep less, weigh more.

Sleeping only four to five hours a night—instead of the recommended seven to eight—alters levels of the appetite-regulating hormones leptin and ghrelin, leading to increased appetite. These hormonal changes combined with having more awake time to eat and feeling too tired to exercise all contribute to weight gain.

Carbs vs. Protein. The Atkins Diet, South Beach Diet and others like them maintain that low-carbohydrate diets offer a metabolic advantage over low-fat diets by burning more calories for energy.

The weight loss seen with these diets is more the result of high protein than low carb, according to Dale Schoeller, Ph.D., of the University of Wisconsin at Madison. In fact, a recent review of studies that he authored found some evidence of a very slight metabolic advantage for high-protein diets. Protein increases satiety, helping dieters stick to low-calorie diets. And protein may slightly blunt the fall in resting metabolism that occurs with weight loss. Still, what matters most is calories.

"The vast majority of weight loss is explained by how much people cut calories and how much they exercise," says Schoeller, "not by changing the percentage of carbohydrates, protein or fat in their diets."

Do Supplements Help? Many weight-loss supplements marketed to increase metabolism contain stimulants like caffeine, guarana, yerba mate or bitter orange (see sidebar). Stimulants speed up metabolism by increasing heart rate. Unfortunately, they can also produce side effects like insomnia, anxiety, heart palpitations and elevated blood pressure.

One-A-Day WeightSmart claims to "enhance metabolism" with epigallocatechin gallate (EGCG), a natural extract of green tea, and with extra levels of "metabolism-promoting" chromium and B vitamins. Research to back up these claims is scarce and typically comes from small studies with small effects. For example, in an oft-cited 24-hour study of 10 people, resting metabolism increased 4%—about 75 calories a day—in participants given 270 milligrams of EGCG and 150 milligrams of caffeine. But the typical 30 to 40 milligrams of EGCG in weight-loss supplements and vitamins, like *One-A Day WeightSmart*, may not even be enough to be effective.

Safe Ways to Raise Your Metabolism.

EN spoke with Lyssie Lakatos, R.D., and Tammy Lakatos Shames, R.D., authors of *Fire Up Your Metabolism: 9 Proven Principles for Burning Fat and Losing Weight Forever* (Fireside, 2004). They offered these metabolism-boosting tips:

- Do 30 minutes or more of aerobic activity at least four to five times a week. Try brisk walking, biking or dancing to burn calories and get your heart pumping.
- Strength-train three times a week to increase your lean muscle and the rate

at which your body burns calories.

- Don't wait more than five hours between meals (except at night). Skipping meals can slow your metabolism and deprive you of needed energy.
- Eat breakfast to wake up your metabolism after a night's sleep. Having breakfast gives you energy and helps prevent overeating at your next meal.

—Adrienne Forman, M.S., R.D.

Supplement Ingredients That May Boost Metabolism

Many supplements claim to boost metabolism. Do they? Are they safe? Here's the low-down on ingredients in popular supplements:

Bitter Orange/Synephrine (*Citrus aurantium*)—Extract of Seville oranges; stimulant; works on receptors in fat tissue; safety uncertain; similar chemically to ephedrine.

Caffeine—Stimulant; increased metabolic effect lasts about three hours; works via proteins in fat tissue and receptors in brain; less effective in very overweight people.

Cayenne/Capsaicin (*Capsicum frutescens*)—Used in Ayurvedic medicine; may decrease body fat by increasing oxygen consumption.

EGCG/Green Tea (*Camellia sinensis*)—Antioxidant extracted from green tea; increases metabolic effects of caffeine; may work via effect on enzymes and fat absorption.

Ephedrine/Ma Huang (*Ephedra sinica*)—Stimulant; increases heart rate and blood pressure; works on brain and proteins in body fat. Linked to 17 deaths; now banned in the U.S. in diet supplements.

Forskolin (*Coleus forskohlii*)—Extract from mint family, used in Ayurvedic medicine; decreases blood pressure; may increase muscle with no weight change.

Guarana—Stimulant; effects courtesy of its caffeine content (see above).

White Willow Extract/Salicin (*Salix alba*)—Reduces inflammation, which may be linked to weight gain; increases effects of caffeine and ephedrine.

Yerba Mate (*Ilex paraguariensis*)—Stimulant similar to caffeine; increases blood pressure; safety uncertain in large amounts or if combined with caffeine or bitter orange.

Yohimbine (*Pausinystalia yohimbe*)—Stimulant may suppress appetite by blocking brain receptors; may lower blood pressure.

Note: EN does not endorse weight-loss supplements because, as a rule, ingredients that are effective tend to boost metabolism only slightly and can be risky.

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