Make half your plate fruits and vegetables. Make at least half your grains whole. Eat fish at least twice a week and nuts four times a week. Eat more fiber.

It doesn’t matter what health experts recommend. Companies appear eager to meet those needs.

But instead of pushing healthier foods, they use new buzzwords (“1 full serving of vegetables!” “Made with whole grains!” “Omega-3”) to keep the same cheap ingredients (mostly white flour, sugar, and oil) flying off the shelf.

Goodbye veggies. Hello cookies, chips, and chewy bars.

Continued on page 3.
**Fiber**

“Most consumers’ diets are fibre deficient—containing less than half the recommended daily amount of fibre,” explains DuPont’s brochure for its Litesse (“the Better Fibre”). “Tap into this market opportunity and project a healthier image for your product…”

Litesse is polydextrose, an odorless white powder made by connecting chains of glucose (dextrose) with bonds that are not easily broken apart by our digestive enzymes. So foods that replace sugar or fat with polydextrose have fewer calories...and, technically, more fiber.

It’s not just DuPont. “Who knew fiber could be clean and clear?” asks one of Archer Daniels Midland’s brochures. “Use Fibersol-2 digestion resistant malto-dextrin in your beverage products and consumers will start looking at fiber in a whole new way!”

Indeed.

Why bother with a bowl of whole-grain cereal when you can have a Kellogg’s To Go Milk Chocolate Breakfast Shake, with “5 grams of fiber,” or its FiberPlus Antioxidants Chocolate Peanut Butter Chewy Bar, with “35% DV fiber,” for breakfast?

Why bother eating a fiber-rich orange (that you have to peel) or a peach (that might drip on your clothes) when you can snack on a Fiber One Double Chocolate Cookie or a Fiber One 90 Calorie Chocolate Fudge Brownie, each with “20% Daily Value of Fiber”?

You can even have a Weight Watchers Chocolate Créme Cake, with 4 grams of fiber, or a Skinny Cow Chocolate Truffle ice cream bar, with 3 grams.

Those and other cookies, brownies, bars, “fruit” snacks, drinks, muffins, and white-flour pastas and breads get much of their fiber from white powders like inulin, polydextrose, and modified starches.

The problem: most processed fibers don’t do as much as intact, unprocessed fiber.

“Epidemiological studies show that eating fiber-containing foods like fruits, vegetables, whole grains, and legumes has many good health outcomes,” says Jo-anne Slavin, professor of nutrition at the University of Minnesota. “That’s pretty solid.”

For example, when she gave 22 women chocolate crisp bars with 10 grams (a fairly high dose) of one of four processed fibers—inulin, oligofructose, soluble corn fiber, or resistant wheat starch—they felt no less hungry than when they got bars with no added fiber.

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The evidence is strongest that those foods can lower the risk of heart disease, concluded the Institute of Medicine in 2002. But they may also help prevent constipation, type 2 diabetes, and obesity.

“But all these added fibers are really different,” explains Slavin. “If people think, ‘I’ll get nine grams of fiber in this chocolate bar and I won’t have to worry about getting enough fiber,’ that’s a mistake.”

Marketers’ biggest lure: the claim that fiber leads to weight loss by making you feel full.

Fiber “helps provide a feeling of fullness,” says the Thomas’ Light Multi-Grain Hearty English Muffins package.

“Most added fibers don’t affect satiety,” says Slavin. “If you can sneak added fiber into a food or drink and it doesn’t affect the taste, it’s not likely to have any effect on satiety.”

For example, when she gave 22 women chocolate crisp bars with 10 grams (a fairly high dose) of one of four processed fibers—inulin, oligofructose, soluble corn fiber, or resistant wheat starch—they felt no less hungry than when they got bars with no added fiber.

“Inulin is a prebiotic, but it probably shouldn’t be labeled as a fiber,” notes Slvin. (A prebiotic spurs the growth of bacteria in your gut.)

In another study, people were no less hungry after eating muffins made with 10 grams of added polydextrose than after eating a low-fiber muffin, though they were less hungry after eating muffins with 10 grams of resistant starch or corn bran.

Experts advise us to eat more fruits, vegetables, beans, whole grains, fish, and nuts. Instead, our stores are stocked with junk foods that claim to deliver those same foods. “It’s about marketing,” says Marion Nestle of New York University. “It’s not about health.”
“4 g fiber” may give dieters an excuse to eat Chocolate Crème Cake.

“If you look at any added fiber, half of the studies show something and half show nothing,” says Slavin. “It takes a high dose of fiber to show an effect. At the amount that people typically eat, it’s not going to show anything at all.”

Foods that are rich in intact fiber (fruits, vegetables, beans, and whole grains) are a different story.

“In our studies, people do feel fuller with higher-fiber whole foods,” says Slavin. In one study, she gave 14 women one of two breakfasts: oatmeal, blueberries, and apples or a glass of skim milk and roughly two cups of Naked juice plus Fibersol-2, an added fiber. Both breakfasts had the same calories and the same amount of fiber (10 grams), protein, carbohydrate, and fat.¹

“People felt fuller on the oatmeal and fruit,” says Slavin. “To say that if we put some fiber in a drink, it’s going to make you feel fuller, that’s misleading.”

Can processed fibers help keep you regular? Even high doses (20 grams a day) of inulin don’t.² The same high dose of polydextrose increased stool weight, but “the increase was about 25 percent of that seen with wheat bran,” says Slavin. And the people who got the polydextrose also reported more gas.³

Similarly, “there is some data showing that some processed oat, soy, or corn fibers increase stool weight, but it’s not much of an increase,” adds Slavin.

And it’s not easy to tell which fibers provide even that small increase.

“They vary all over the place,” says Slavin. “You can isolate the fiber in oats by different methods. Some are really gummy, so they’re good for lowering blood cholesterol. An isolated oat hull is not. It’s complicated.”

The bottom line: added processed fibers don’t turn cookies, brownies, bars, and shakes into beans, bran, berries, and broccoli. But they do turn little white powders into bigger profits.

**Veggies & Fruit**

“We pop a flavorful blend of nine (count ’em, nine) veggies and add a hint of olive oil and a touch of sea salt for tasty chips that are light, crispy, and gluten free,” says the Pop Chips Hint of Olive Oil Veggie Chips bag.

There may be nine veggies, but there’s more dried potato than any other ingredient, more tapioca starch than beet, spinach, pumpkin, tomato, or red bell pepper powder, and more salt than kale powder.

Then there’s the “half serving of vegetables per 2 oz. portion” of Ronzoni Garden Delight Tricolor Rotini, which comes from “vegetable solids from dried vegetables.”

What’s going on?

“Ingredient manufacturers turn powder into health gold,” ran the 2008 headline in Food Processing magazine.

“Fruit and vegetable powders, extracts and super-concentrates are making five-a-day easier.”

Easier? Maybe. But the Center for Disease Control and Prevention’s 5 A Day campaign was designed to get people to eat actual fruits and vegetables, not foods (or supplements) with powders or concentrates.

“The marketing is quite misleading,” says Barbara Rolls, professor and Guthrie chair of nutritional sciences at Penn State University.

“If we eat a variety of vegetables and fruits, we get all of their nutrients and phytochemicals, some of which we don’t even understand. So how could food companies know if powders have the same benefits?”

They don’t. Yet that hasn’t stopped them from stuffing fruit and vegetable powders into a growing list of foods. And wholesalers have a ready supply.

“Whether you want to add nutrition to your label, infuse full color or formulate a specific flavor profile for your discerning consumers, PowderPure has the right powder to enhance your presence in the marketplace,” says PowderPure, which sells organic broccoli, spinach, and two dozen other fruit and vegetable powders.

And Milne Fruit Products’ fruit and vegetable powders are ideal for adding to “breakfast cereals, fruit pieces, bakery goods, snack chips, smoothies and yogurt, spreads, candies and chocolate, and juices.”

Even if powders had all of the nutrients in fruits and vegetables, they still would come up short.

“For satiety, we know that you need the whole food to get the full benefit,” says Rolls. “You need the chewing, the mouthfeel, the water, the fiber, and the whole cell wall, which provides more volume.”

In one study, Rolls fed people a 125-calorie “appetizer” of apple slices, applesauce (made from the same apples), or apple juice either with or without as much fiber as the apple and applesauce had.⁴

“The apple slices were most satiating,” says Rolls. People ate 190 fewer calories at their next meal after eating them, but only 100 fewer calories after the applesauce and no fewer calories after either juice.

“The apple takes more time to eat,” she notes. “Applesauce and juice go down very quickly.”

Yet V8 V-Fusion Açai Mixed Berry 100% Juice boasts that it has “1 full serving of vegetables” (from sweet potato and carrot concentrates) and “1 full serving of fruit” (mostly from apple and grape juice concentrates), as though juice and fruit were equally good.

Then there’s calorie density.
“Vegetables are so low in calories because they’re mostly water,” says Rolls. “If it’s dried powder, you don’t get that benefit because you don’t get the water content.”

Replacing some of the ingredients in almost any dish with vegetables (but not powders) should lower its calorie density—that is, the calories per ounce of food.

“If you reduce the calorie density of a dish by 20 percent by adding vegetables, people eat about 20 percent fewer calories because they tend to eat a consistent weight or volume of food,” notes Rolls.

So if you add mushrooms and onions to your brown rice, odds are that you’ll eat less rice. Add broccoli and red peppers to your pasta, and you’ll eat less pasta. Add fresh berries to your cereal, and you’ll eat less cereal.

(See March 2012, cover story.)

“You can even add puréed or chopped stealth vegetables,” says Rolls. “It’s very effective.”

But adding vegetable powder to pasta or chips or other processed foods does not lower their calorie density. It also increases the odds that you’ll be eating more white flour. And it guarantees that you’ll be missing something.

“There’s the pleasure, the variety of taste, and the culinary experience of eating fruits and vegetables,” says Rolls. “Who would want to replace that? How would you look forward to the summer produce season?”

Each cup has a “full serving of vegetables” from carrot and sweet potato juice, but only a third the vitamin A of one baby carrot.

Nuts

“With cocoa roast almonds,” says the box of Emerald almonds. “They’re turning nuts into candy,” says Nestle. “Corn syrup is cheaper than nuts. Why not just have 200 calories’ worth of nuts without the artificial color, corn syrup, and other junk?”

Each pack has 250 calories (that’s the “energy”), mostly from peanuts and sugar-coated soybeans.

“Chocolate with almond” helps sell a jar of mostly sugar and oil.

“Almonds are on fire,” says Blue Diamond CEO as meteoric growth rates continue.” ran the headline on foodnavigator.com in March.

One reason for the industry’s success: almond milk.

With so many almonds on most cartons, people must think it’s like drinking liquid nuts. In fact, a cup of almond milk has just four almonds (and only 1 gram of protein). The rest is mostly water and (unless it’s unsweetened) sugar.

Ditto for Hershey’s Chocolate with Almond Spread. It’s largely sugar and oil (sunflower and palm), with a smidgen of nonfat milk, almonds, and cocoa.

Nuts—especially almonds and walnuts—are rich in polyunsaturated fat, which helps lower LDL (“bad”) cholesterol. And they have some protein, though not that much. (Almonds have about 6 grams of protein and 165 calories per ounce, or roughly two dozen nuts. Walnuts have 4 grams of protein and 185 calories per ounce, or about 14 halves.)

But companies have discovered that there’s money to be made selling more than plain old almonds or walnuts.

“It’s called added value,” says Marion Nestle, the Paulette Goddard professor of nutrition, food studies, and public health at New York University.

“You can’t make any money selling plain nuts or fruit or vegetables. Therefore, companies are under pressure to add value. And adding value in America means adding sugar, salt, fat, or white flour. They’re cheap, and your product is shelf-stable.”

That means selling S’mores Nut Blend or Sustaining Energy Mix instead of a bag of nuts.

“They’re turning nuts into candy,” says Nestle. “Corn syrup is cheaper than nuts. Why not just have 200 calories’ worth of nuts without the artificial color, corn syrup, and other junk?”

Whole Grains

“Made with 5g whole grain,” says the box of Nabisco 100 cal Oreo Thin Crisps, which are mostly sugar and white flour.

So are WhoKnew Chocolate Smart Cookies (“4g whole grain”). And Kellogg’s Oatmeal Delights Pop-Tarts (“made with whole grain”) are largely...
a mix of whole wheat and white flour, with 3½ teaspoons of added sugar (and surprisingly little oatmeal).

When health authorities advise people to replace refined grains with whole grains, cookies and Pop-Tarts aren’t what they have in mind.

“The message has gotten out of hand,” says the University of Minnesota’s Joanne Slavin.

The food industry deserves credit for launching a host of whole-grain breads, cereals, crackers, and pastas in recent years, she notes. “But with two out of three American adults either overweight or obese, you can’t just tell people to eat more of any food that has whole grains or they’ll end up eating more calories.”

And some companies use “whole grain” claims to sell foods that are mostly plain old white flour. Cheez-Its (“5g of whole grain”) and Thomas’ PLAIN MADE WITH WHOLE GRAIN BAGELS (“10g of whole grain”), for example, each has more white flour than whole grain.

“If a food has at least eight grams of whole grains per serving, it can put the Whole Grains Council’s stamp on its label,” explains Slavin. “But foods can have a ton of calories or sodium or sugar or white flour and still get the stamp.”

Take General Mills Hershey’s Cookies ‘n’ Creme cereal. It may be “made with 100% whole grain,” but it’s also 33 percent sugar.

Bolthouse Farms boasts that its Strawberry Horizons sells both a Chocolate and a Vanilla DHA Omega-3 Organic Low-fat Milk that “supports brain health,” with 32 mg of DHA from algal oil per cup.

Milk has little or no naturally occurring DHA or EPA (the omega-3s in fish oil). It does have some ALA (a shorter-chain omega-3), though far less than canola or soybean oil has.

What’s more, there isn’t much evidence that ALA prevents heart disease more than other unsaturated fatty acids.

And in recent clinical trials, even EPA and DHA haven’t lowered the risk of a second heart attack or stroke in people who have already had one.

Maybe that’s why companies are branching out beyond the heart.

“Omega-3/DHA & 4 nutrients to support brain & body,” says the label of Minute Maid Pomegranate Blueberry Flavored Blend of 5 Juices. Despite the name, the “blend” is mostly apple and grape juice, with 50 mg of DHA from algal oil per cup.

“DHA is a key building block in the brain,” says the label. That may sound like DHA is a memory or IQ booster, but the claim is a classic “structure-or-function” one that requires little or no evidence.

So far, DHA and EPA haven’t seemed to slow memory loss. The VITAL trial is testing fish oil on memory, the risk of a first heart attack or stroke, and other outcomes, but results won’t be available until 2017.

As for “eye health,” the Age-Related Eye Disease Study 2 (AREDS2) found that a daily dose of EPA (350 mg) plus DHA (650 mg) failed to slow the progression of macular degeneration in people who already had the disease.
But none of that stops companies from flogging omega-3s.

“ALA Omega-3,” says the box of Kellogg’s new FiberPlus Antioxidants Chocolatey Trail Mix Chewy Bars. Each 180-calorie bar (with 320 mg of ALA) is mostly oats, sugar, peanuts, almonds, crisp rice (sugar plus rice flour), and oils like palm kernel. The fiber includes processed corn fiber, and the antioxidants are the vitamin E and zinc that Kellogg adds.

“Good source of protein, fiber & ALA omega-3,” says the box of Barilla Plus multigrain pasta, which has about 200 mg of ALA from flaxseed in each 210-calorie cup of cooked pasta. (A tablespoon of canola or soy oil has about 1,000 mg of ALA.)

“I once asked someone from Barilla why they sell pasta like this,” says NYU’s Marion Nestle. “He said, ‘We have to because of the competition.’” And because people put it in their shopping carts.

“Why buy a plain, ordinary food if you can get a superfood?” asks Nestle. “It’s all about marketing.” Her advice: “Eat real food. It may have to be cooked, it’s not as sweet, and it’s not advertised. But you’re better off with the original food with all the nutrients and fiber that it comes with.”

After even a short stroll through the grocery store, no one could blame you for thinking that everyone should be on a gluten-free diet.

In fact, gluten-free foods are critically important for people who have been diagnosed with celiac disease (see June 2014, cover story). For them, the surge in gluten-free foods is a boon, even if some are gluten-free versions of cookies, cakes, and other junk food.

But millions of others avoid gluten (a protein in wheat, barley, and rye) because they think it might help them lose weight or have less GI distress, or because, as the woman in a New Yorker cartoon explained to a friend, “I have no idea what gluten is, either, but I’m avoiding it, just to be safe.” For them, gluten-free junk is, well, junk. Take Udi’s Gluten Free Moist & Tasty Cinnamon Rolls. They’re basically tapioca starch, brown rice flour, oil, and sugar—about seven teaspoons of sugar in each 300-calorie iced roll.

Whole Foods has an entire line of Gluten Free Bakehouse sweets. A single one of its Almond Scones has enough rice flour, butter, heavy cream, sugar, and other ingredients to supply 390 calories and 12 grams (half a day’s worth) of saturated fat.

Then there’s Glutino, which sells gluten-free Toaster Pastries (think Pop-Tarts), Chocolate Vanilla Creme Cookies, Baked Potato Crisps, and Pretzels (including some coated with “yogurt” or “chocolate,” which means they’re essentially coated with sugar and palm kernel oil). Most are basically corn starch, tapioca starch, white rice flour, and potato starch.

Think you’ll lose weight eating gems like those? Don’t count on it.