Super Foods

Make your dishes do double duty

by MADELEINE GREEY

You know the world is getting complicated when terms like "functional foods" start popping up. It makes you wonder if what we're noshing on most of the time is, er, dysfunctional.

According to Toronto scientist, doctor and professor David Jenkins, who studies and develops functional foods, they "aren't just healthy, they bring you back to health."

But before they bring us anywhere, what are they? Functional foods provide benefits beyond basic nutrition, meaning all those vitamins, minerals, proteins, carbs, fats and water that keep our bodies ticking. They contain physiologically active components (such as lycopene or omega-3 fatty acids) that may reduce the risk of disease. Think of functional foods as value-added foods that can repair or enhance health.

While many ailing adults might really need these, do kids? Jenkins says they do — for two reasons.

- Foods like lentils, beans, whole-grain barley, pasta, oat bran and psyllium (a seed high in dietary fibre) give up their carbohydrates considerably slower than other foods, "providing a sustained release of nutrients," Jenkins explains. "These are useful for a child who has to concentrate over a long period of time or exercise."
- The other reason Junior needs to be scarfing down cereals with oat bran or psyllium — for exposure's sake. Jenkins calls it "broadening children's taste horizons so that later on, when they really need these functional foods, they'll be part of their repertoire."

Yet Jenkins warns that even with a healthy item, you can have too much of a good thing: "Even functional foods need to be portion controlled."

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The Dish on Portions

Per cookie:	
calories	102
protein	1.7 g
fat	4.4 g
carbohydrates	14.8 g
fibre	0.8 g
iron	5%*
vitamin A	15%*

**of recommended daily amount*

Toronto registered dietitian Rosie Schwartz worries that some parents don't know this. She sees the abundance of calcium-fortified beverages on store shelves and is concerned parents may not realize if their child may be getting too much. "Parents need to stop and think before they buy these fortified products," she says, noting that a calcium-enriched soy beverage might be right for one child's diet, but not another's. While too little calcium can cause osteoporosis, too much can lead to kidney stones.

Since its approval by Health Canada in 1997, calcium fortification of beverages has taken off. Soy, almond, rice, even potato drinks can be found with added calcium on store shelves. This type of fortification is voluntary (monitored by the Canadian Food Inspection Agency), compared with several mandatory food fortifications that have been in our processed-food chain for decades. For instance:

- **Iodine** is added to salt to prevent goitre — a disease we rarely hear of anymore.
- **Vitamin D,** which we get from sunlight but receive little of during Canadian winters, has been added to milk and margarine since the late 1960s and, as a result, rickets — a childhood disease causing bowed legs — has been almost eradicated.
- **Folic acid** has been added to all processed flour and cornmeal since 1998 in response to strong evidence that it decreases the risk of neural tube defects in babies.
- **Vitamin A,** essential for vision and immune function, occurs naturally in butter and whole milk and is added to margarine and skim milk to make sure we get enough in our diets.
- **Iron and the B vitamins** (niacin, thiamine and riboflavin) are all important nutrients lost through processing

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Oat Bran and Carrot Cookie

Your kids will never know these are good for them. You'll find oat bran in health food or bulk stores. When shopping for whole wheat flour, be sure to choose "all-purpose" or "soft" since regular whole wheat (usually labelled as just "whole wheat") is better suited for breads than pastry baking.

½ cup (125 mL)	**non-hydrogenated margarine**
¾ cup (175 mL)	**brown sugar**
1	**omega-3 egg**
1 tsp (5 mL)	**vanilla**
1 cup (250 mL)	**all-purpose or soft whole wheat flour**
1 cup (250 mL)	**old-fashioned or quick-cooking rolled oats**
½ cup (125 mL)	**oat bran**
1 tsp (5 mL)	**cinnamon**
½ tsp (2 mL)	**baking soda**
½ tsp (2 mL)	**salt***
1 cup (250 mL)	**grated carrots**

Preheat the oven to 350°F (180°C).

In a large mixing bowl, using an electric mixer, cream together margarine, brown sugar, egg and vanilla, beating until smooth and fluffy.

In another bowl, whisk together the flour, oats, oat bran, cinnamon, baking soda and salt. Add this to the margarine mixture, beating until everything is mixed well. Stir in grated carrots.

Drop batter by the heaping tablespoon, 2 in. (5 cm) apart on a parchment-paper-lined cookie sheet. Bake for 16 to 18 minutes, or until golden and the edges begin to brown lightly.

Makes 2 dozen.

**Add only if using unsalted margarine.*

Our recipe tester, Adell Shneer, tests our Nutrition *column using both imperial and metric measurements. However, proportions in the metric version may differ slightly from the original, causing small variations in the result.*

Functional in the Kitchen

- To cook barley, bring 1 cup pearl or pot barley and 3 cups water or stock to a boil, then simmer, covered, for 40 to 45 minutes or until tender. Substitute barley flour (found in bulk and health food stores) for half the white flour in recipes for cookies, muffins, quick breads and pancakes.
- Kellogg's All-Bran Bran Buds with psyllium can be added to baking recipes, or sprinkle a spoonful on yogurt or breakfast cereal.
- Substitute ½ cup oat bran for flour in your favourite cookie, muffin, pancake or quick bread recipes. Look for Country Harvest Oat Bran bread (Weston Bakeries) or try LeClerc Vitalplus oat bran cookies.
- Pasta may be the easiest functional food to include in a child's diet. Jenkins says, "It doesn't matter if it is white, whole-grain or egg-enriched" pasta — they all have the same benefit.
- Bean it up by adding canned beans to your salads, serving bean dips, or pouring boiling water into an instant bean soup.

of white flour, so Health Canada makes fortification mandatory to ensure we get enough.

There's little fanfare over mandatory food fortifications (in terms of what we see on food labels). But when it comes to voluntary fortifications, many food manufacturers like to shout it out with claims such as "an excellent source of vitamin C" on Tang orange flavour crystals or "100% of recommended daily intake of vitamin C" on Kool-Aid Jammers.

"Don't be fooled by one claim on a label," says Schwartz. "Yes, these beverages have vitamin C. Are they a smart choice? Not necessarily."

Schwartz, author of *The Enlightened Eater's Whole Foods Guide*, wants parents to look at the total picture before they leap. If nutrition is the goal, look for whole, unprocessed foods such as fruits, vegetables, whole grains, dairy and meat. "Why buy something that contains one single nutrient when you can buy a whole food that contains dozens of vitamins, minerals and disease-fighting compounds?" she asks.

But food fortification is a growing grocery trend, and our neighbours to the south are rapidly adding good-for-you ingredients to manufactured foods, such as vitamins in gumballs, echinacea and vitamin E in orange juice, and nutrients from A to Z to bottled water.

Back at home, Health Canada is reviewing its food fortification policy. The government agency says there have been "concerns from some sectors of the food industry and some consumers that our current regulations are overly restrictive."

Bruce Holub, a professor of nutritional sciences at the University of Guelph, Ont., would like to see functional foods play a bigger role in the health of Canadians and has the research to back it up. Holub has studied two- and three-year-old children to determine the amount of docosahexaenoic acid (DHA), an omega-3 fatty acid, in their diets. DHA is a major structural fatty acid and is an important nutrient for proper brain and eye development in infants and young children.

Fish is a major dietary source of DHA, but "fish doesn't show up on the radar screen of a two- or three-year-old's diet," says Holub. At a 1999 workshop with an international group of scientists, Holub concluded that kids this age need 150 mg of DHA every day (see "Feed Your Head"). But 95 percent of the children Holub studied were well short of that, with an average intake of 19 mg a day.

Enter chickens pecking on flaxseed and cows with herring in their cud. In the brave new world of functional foods, scientists have discovered how to design eggs and milk high in DHA, through novel animal-feeding regimes. For those who don't want to eat fish, these new DHA-enriched foods are a boon. But Schwartz is leery, wondering whether vegetarian cows are doing something unnatural eating fish. "We need to question these issues," she says.

But Holub has no such concerns. "There's nothing new about it," he says. "They've been putting fish meal in cow feed for decades."

Meanwhile, kids have been chewing gum for decades and manufacturers of sugarless gum must have been giddy when the American Council on Science and Health listed the stuff as a functional food in 2002 because it reduces the risk of tooth decay. "Moreover, it's a benefit that has nothing to do with basic nutrition, " states their report.

Be it soy drinks, barley or DHA cheese, food can really function for our children. But whatever you do, don't tell your tyke that sugarless gum is on the A-list — she may tell that to her teacher when asked to spit it out. ❤

Feed Your Head

DHA levels in food

mackerel, 3 oz (100 g) fresh, frozen or canned	1780 mg
sardines, 3 oz (100 g) fresh, frozen or canned	1140 mg
salmon, 3 oz (100 g) fresh, frozen or canned	820 mg
omega-3 egg	76 mg
serving of Burnbrae Omega Pro liquid egg	144 mg
Black Diamond DHA Omega 3 Natural Cheese, 30 g	20 mg
Stoney Creek Naturelle Plus ice cream, ½ cup (125 mL)	10–20 mg (depending on flavour)

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