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## Nutrition for Your Kids a Dietary Approach to Cancer Prevention



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The road to lifelong health begins with a nutritious diet and exercise, not only for keeping a healthy heart and trim waistline, but also for preventing cancer. In this guide, you will find the tools you and your family need to get started on a healthy path: up-to-date nutrition and cancer information, advice on changing


## Cancer Prevention Right from the Start

The earlier children start eating a nutritious diet rich in cancer-fighting foods, the greater their chances of staying healthy for life. Cancers of the colon, breast, and prostate are influenced by diet, exercise, and healthy weight control.
 Lifelong eating habits are established in childhood, and the longer the exposure to cancer-fighting foods and the avoidance of cancer-promoting foods, the greater the likelihood that cancer won't strike during adulthood.

More than one million people are diagnosed with cancer in the United States each year, and 30 to 60 percent of these cancers are potentially preventable with a healthy diet. ${ }^{1}$ An unhealthy diet and a sedentary lifestyle lead to obesity, which in turn increases cancer risk. Building one's diet from whole grains, legumes, vegetables, and fruits provides a regimen loaded with cancer-fighting antioxidants, phytochemicals, and fiber,
 and helps promote healthy weight control. The chart on the next page compares the nutrient information in a few popular American foods to similar vegetarian options.

| Food | Calories | Fat (g) | Fiber (g) |
| :---: | :---: | :---: | :---: |
| Veggie Burger | 264 | 0.5 | 8 |
| Hamburger | 444 | 21 | 2 |
| Homemade Bean Burrito | 255 | 2 | 12 |
| Fast-food Chili-Cheese Burrito | 390 | 18 | 4 |

As you can see, a veggie burger has 20 less grams of fat and 180 less calories than a typical hamburger, and a homemade bean burrito with lettuce, tomato, and salsa has 16 less grams of fat, 135 less calories, and 8 extra grams of cancer-fighting fiber compared to a fastfood chili-cheese burrito.

It's easy to make the switch and well worth the time. It is important to help children choose a healthy eating style and incorporate fun physical activity in their lives now and in the future to help ward off cancer and other chronic diseases.

## Gold Stars to Fruits and Veggies

According to the Centers for Disease Control and Prevention, approximately 80 percent of high school students do not consume the recommended five or more daily servings of fruits and vegetables. Research has repeatedly shown that fruits and vegetables reduce the risk of several forms of cancer. ${ }^{4}$ And a large European study found a significant decrease in adult cancer incidence and mortality among individuals who had a high consumption of fruit as children. ${ }^{5}$

## Early Puberty and Breast Cancer Risk

Since lifetime estrogen exposure is a critical factor in breast cancer risk, the earlier a girl reaches puberty, the greater her chance of developing breast cancer in her adult years. The standard American diet-loaded with fat and lacking in fruits, vegetables, and dietary fiber-tends to bring on puberty at earlier ages, due to increased body fat and insulin resistance. ${ }^{6}$ A diet rich in low-fat vegetarian foods encourages healthy weight control and reduced insulin levels in children and adults, and therefore helps to decrease breast cancer risk.?

## Avoiding Dairy Products

Several cancers, particulary prostate cancer, have been linked to the consumption of dairy products. Two sizeable Harvard studies showed that men who consumed the most dairy products had significantly higher risk of developing advanced prostate cancer compared to men who consumed few or no dairy products. ${ }^{8,9}$


## Carcinogens in Cooked Meat

While it is important to load up on fruits, vegetables, whole grains, and beans to ensure intake of cancer-fighting nutrients and to keep weight down, it's also important to steer clear of foods that may encourage cancer growth. Meat is devoid of fiber and other nutrients that have a protective effect. It also contains animal protein, saturated fat, and, in some cases, carcinogenic compounds formed during the cooking process. These carcinogenic compounds may be to blame for part of the correlation between meat intake and increased cancer risk. Meat intake has been shown to be a risk factor for breast cancer, even when researchers controlled for confounding factors such as total fat and calorie intake. ${ }^{15}$

Heterocyclic amines (HCAs) are DNA-damaging compounds produced as meat cooks at high temperatures. The longer and hotter the meat cooks, the more of these compounds form. In some studies, grilled chicken formed higher concentrations of these cancer-causing substances than other types of cooked meat. ${ }^{16}$ All types of meat, however, can contain some level of these carcinogens. Consumption of well-done meat has been associated with increased risk of breast cancer and colon cancer.

In addition, grilling or broiling meat over a direct flame results in fat dropping on the hot fire which produces flames containing polycyclic aromatic hydrocarbon (PAH). PAHs adhere to the surface of food; the more intense the heat, the more PAHs


Play with Your Food Art ©

## Weighing in on Cancer Risk

Overweight children are likely to become overweight adults, thus increasing risk for a host of health problems, including diabetes, high blood pressure, heart disease, and some cancers. New research has also shown a direct association between the severity of excess weight in childhood and cancer risk in adulthood. For every onepoint increase in body mass index, there is a nine percent increase in adult cancer risk. ${ }^{17}$ Therefore, the more overweight a child is, the greater his/her risk of developing cancer later on.

Choosing a plant-based eating style is a simple way to achieve or maintain a healthy weight. It requires no calorie counting and provides the nutrients a fit body needs. Vegetarian kids
have been shown to be leaner than their
meat-eating peers in a number of scientific studies, ${ }^{18,19}$ and vegetarian diets have also been shown to be effective for weight loss. ${ }^{20}$

## Fish and Shellfish and Cancer

Many people include fish in their diets, sometimes out of a desire to increase the amount of omega- 3 fatty acids. However, fish and shellfish often contain unsafe levels of mercury and other environmental toxins associated with increased cancer risk. In fact, of the potential sources of mercury contamination, the consumption of fish and shellfish contributes most to the mercury concentration in humans. ${ }^{21}$ The EPA and the International Agency for Research on Cancer (IARC) have designated mercury as a possible human carcinogen. ${ }^{21}$ Polychorinated biphenyls (PCBs) and dioxins are other probable human carcinogens that accumulate in fish and shellfish.

Levels of contamination vary widely. Contamination also varies greatly among individual fish. Therefore, even well-informed consumers have no way of knowing whether the fish they have purchased has a high or low level of mercury contamination. Even modest consumption of moderately contaminated and commonly eaten fish can put consumers at risk very quickly. ${ }^{22}$

High levels of toxins, fat, and cholesterol, and a lack of fiber, make fish a poor dietary choice to ensure adequate intake of essential fatty acids. Alpha-linolenic acid, a common omega- 3 fatty acid, is found in many vegetables, beans, nuts, seeds, and fruits. It is concentrated in flaxseeds and flaxseed oil and also found in oils such as canola, soybean, walnut, and wheat germ. Omega-3 fatty acids are found in smaller quantities in nuts, seeds, and soy products, as well as beans, vegetables, and whole grains. ${ }^{23,24}$


## Making the Switch

Adopting a healthy eating pattern is easy when the whole family makes the change together. Here are some helpful tips for making the switch:

- Identify three or four vegetarian recipes your family already enjoys. Examples include bean burritos, pasta with marinara sauce, vegetable stir-fries with rice, and vegetable soup. Next, think of three or four more frequently eaten meals that can be easily adapted to be vegetarian. For example, chili can be made with beans, and other favorites, such as sloppy joes and tacos, can be made with texturized vegetable protein.
- Experiment and broaden food options. Try new foods, recipes, and places to eat to keep it interesting and enjoyable. Sometimes, when people change their food intake because of concerns about health, body size, or personal beliefs, they focus too narrowly on just a small number of foods. Exploring the broad range of healthful foods now available makes a menu change fun, nutritious, and sustainable.
- It's best to avoid foods and beverages, such as candy, soda, punch, cookies, and fried snack foods, that have lots of calories but few healthful nutrients. Fatty condiments such as creamy salad dressings, mayonnaise, butter, and margarine, are best left off the plate. Instead of centering meals around fatty meats and cheese, meals should be built from the New Four Food Groups: healthy grains, vegetables, legumes, and fruits (see pages 10 and 11).
- Choose low-fat, healthful options whenever possible. Choosing lower-fat recipes and foods and eating a variety of colors are good ways to ensure that your child's diet is a healthy one. For example, oven-roasted potatoes should be chosen over french fries, pasta with marinara sauce is a better option than spaghetti with meatballs, and fruit sorbet is just as refreshing but much more healthful than ice cream. The net effect is usually a reduction in calories and fat in any given portion of food. Plus, the introduction of new foods adjusts the taste buds and develops an appreciation for good, wholesome food.



## The New Four Food Groups

Plan menus using the New Four Food Groups: whole grains, vegetables, legumes, and fruits. People who consume diets built from these foods tend to have a dramatically lower incidence of heart disease, cancer, stroke, and weight problems.

## Whole Grains

Build each of your meals around a hearty grain dish. Grains are rich in fiber and other complex carbohydrates, as well as protein, B vitamins, and zinc.

- Whole grains include some breads; some hot and cold cereals; cooked grains, such as rice and barley; and crackers.
- One serving equals $1 / 2$ cup of pasta, grains, or cooked cereal, $3 / 4$ to one cup of ready-to-eat cereal, $1 / 2$ bun or bagel, or one slice of bread.


## Vegetables

Vegetables are packed with vitamin C, beta-carotene, riboflavin, iron, calcium, fiber, and other nutrients.

- "Dark green vegetables" include broccoli, kale, spinach, collards, turnip greens, mustard greens, beet greens, bok choy, and Swiss chard.
- "Other vegetables" refer to all other vegetables, fresh or frozen, raw or cooked.

One serving of vegetables equals $1 / 2$ cup cooked or one cup raw (un-
less an amount is specified in the table on page 11).

## Legumes, Nuts, Seeds, and Non-Dairy Milks

Legumes, nuts, seeds, and non-dairy milks are all good sources of protein, iron, calcium, zinc, and B vitamins. Legumes are great sources of fiber.

- Legumes include beans, such as pinto, navy, kidney, and garbanzo; lentils; black-eyed or split peas; and vegetarian products made from soybeans, such as tofu, veggie burgers, and tempeh (see Glossary).
- One serving of legumes equals $1 / 2$ cup of beans, tofu, or other item (unless specified in the table on page 11).
- Non-dairy milks include breast milk and soy formula for infants and toddlers and rice-, soy-, and other vegetable-based milks for children at least one year of age. Choose fortified soymilk, such as Silk, Westsoy Plus, Enriched VitaSoy, or Edensoy, whenever possible, or use other fortified vegetable-based milks.
- One serving of non-dairy milk equals one cup.
- Nuts include whole or chopped nuts, nut butters, whole seeds, and seed butters.
- One to two servings of nuts may be included in a healthy diet, but they are optional. One serving of nuts equals $1 / 4$ cup ( 1 oz .) or one serving of nut butters equals 1 tablespoon.


## Menu Planning

Planning meals based on the New Four Food Groups is easy and helps ensure growing children get the important nutrients they need. Caloric needs vary from child to child. The following guidelines are general ones.

| 1- to 4-Year-Olds | 5- to 6-Year-Olds | 7- to 12-Year-Olds | 13- to 19-Year Olds |
| :---: | :---: | :---: | :---: |
|  | Whole Grains, Breads, Cereals |  |  |

Be sure to include a source of vitamin B12, such as any typical children's multivitamin, vitamin-fortified cereals, or soymilk.

## Fruits

Fruits are rich in fiber, vitamin C, and beta-carotene. Be sure to include at least one serving each day of fruits that are high in vitamin C-citrus fruits, melons, and strawberries are
all good choices.

- Fruits include all fruits, fresh or frozen, raw or cooked, and fruit juices.
- One serving equals $1 / 2$ cup cooked fruit, $1 / 2$ cup fruit juice, $1 / 4$ cup dried fruit, or one piece of whole fruit.


## Sample Menus for Children and Teens

Breakfast: Oatmeal with applesauce, calcium-fortified orange juice Lunch: Cream of Broccoli Soup*, whole-grain crackers, banana, peas, soymilk Dinner: Baked beans, mashed sweet potatoes, braised collards, soymilk
Snacks: Peach, Cheerios, soymilk

Breakfast: Whole-grain cereal with strawberries and soymilk
Lunch: $\begin{aligned} & \text { Hummus* sandwich on whole-wheat bread with lettuce and } \\ & \text { tomato, apple juice, orange wedge, carrot sticks }\end{aligned}$
Dinner: Veggies in a Blanket*, steamed tofu and spinach, soymilk, Rice Pudding* Snacks: Trail mix, graham crackers, soymilk

Breakfast: Granola topped with soy yogurt, blueberries, and almonds; calcium-fortified orange juice
Lunch: Eggless Salad Sandwich*, green salad, pear
Dinner: Vegetarian chili, whole grain roll, green beans, cucumber salad, soymilk
Snacks: Popcorn, figs, soy "ice cream"

Breakfast: Whole-grain bagel with peanut butter and banana, calcium-fortified orange juice
Lunch: Garbanzo Burger*, baked potato, peach, soymilk, Sweet Potato Muffin*
Dinner: Bean burrito with lettuce, tomato, and guacamole; brown rice; baked tortilla chips and salsa; soymilk; Berry Applesauce*
Snacks: Hummus and crackers, Strawberry Smoothie*, Luna or Clif Bar

## Kid Classics

Being vegetarian doesn't mean having to give up classic kid fare. While whole, unprocessed fruits, vegetables, grains, and legumes should be chosen first, many of the foods children enjoy can be adapted to fit into a vegetarian menu. Here are some tips:

- Pizza. Try ordering pizza without the cheese, and pile on the veggies. If making pizza at home, top it off with vegetarian meatballs or veggie pepperoni, or add veggie cheese.
- Hamburgers and Hot Dogs. Both come in a wide variety of veggie versions. You can microwave them, bake them, grill them, and top them with everything you traditionally enjoy, even soy cheese.
- Cold Cut Sandwiches. Even the cold cut now has a non-meat alternative. Try a slice of veggie ham, veggie turkey, or veggie salami
topped with lettuce and tomato, veggie cheese, and a thin layer of mustard or vegan mayonnaise between slices of whole-wheat bread.
- Chicken Nuggets and Buffalo Wings. Several companies, such as Health as Wealth, offer these traditional favorites in veggie form (look in the frozen food section of the supermarket). Just add ketchup. - Ice Cream. Soy ice cream is a terrific non-dairy alternative that comes in a variety of styles and flavors. For a twist, add frozen fruit and a little soymilk to vanilla soy ice cream, and blend to make a smoothie. A scoop of fruit sorbet-found at many of the large ice cream chains or at the grocery store-is also a refreshing treat on a hot summer day.
- Fast Food. Burger King now offers a terrific veggie burger. Other food chains, such as Subway, also offer vegetarian sandwiches, and Taco Bell makes a bean burrito (just ask them to hold the cheese).


## Healthy Snacks

Young children have high calorie and nutrient needs but their stomachs are small. Teenagers also often have high energy needs combined with busy schedules. Keep delicious, healthy snack choices on hand both at home and in the lunchbox.

## Snacking on the New Four Food Groups

## Whole Grains, Breads, Cereals

Pita chips or whole-grain crackers, Cheerios, granola, wholegrain cereal, popcorn (sprinkle with nutritional yeast), Luna or Clif bars

## Vegetables

Baby carrots, celery stalks (try with peanut butter and raisins), avocado slices, salsa (try with pita chips)

## Legumes, Nuts, Seeds, Non-Dairy Milks

Hummus (try on carrots or crackers), nut butters (put on bread or fruit), edamame (whole cooked soybeans), soy yogurt (sprinkle with granola)

## Fruits

Fortified orange juice, whole fruit, dried fruit, frozen grapes or banana slices

## Learning to Eat Well

- Limit the quantities of highly processed foods and sugary beverages (otherwise known as "empty-calorie" foods) and help children understand reasonable portion sizes. Under most circumstances, restricting
the calorie intake of children is not recommended. Children continue to grow and develop into their early twenties, so they can't afford to shortchange nutrients. However, switching out the empty-calorie foods with healthy options ensures growing kids get everything they need-except the excess calories!
- Children and adults can benefit from learning to listen to their natural hunger and fullness cues, rather than focusing on "cleaning their plates." Help children learn to pay attention to natural internal signals to keep from overeating. If a child does not want to finish his or her meal now, the plate can be wrapped and saved for when the child is hungry later. Promising dessert as a reward is best avoided as well, as it encourages overeating and makes less healthful foods seem special.
- Teach children the value of good nutrition. Parents, guardians, and teachers can work with children toward an understanding that food is a fuel for health and fitness rather than a comfort, friend, enemy, or boredom reliever. Reading books to children that present nutrition in a fun and interesting manner is also a good educational method.
- Get kids engaged in food purchase and preparation. Gardening; picking berries, apples, or other produce at "you-pick" farms; or visiting the local farmers market or fruit stand can spark an interest in healthy foods. Invite children to participate in menu planning as well as cooking. Even very small children can help stir cold or room temperature items, or wash produce, or pour ingredients. These simple experiential lessons will often go a long way to promoting healthy eating habits.

- Encourage children to play with other children and to do active things as a family. Most communities have locally organized activity programs after school, on the weekends, and during the summer. Since gym class and team sports do not engage every child, encouraging individual interests such as ice skating, ballet, gymnastics, or skateboarding are important, too.
- It's important for parents to talk with children about their activity patterns. Children should be active for at least 60 minutes on most days. Sedentary activities, such as TV watching and computer time, should be limited except when homework requires it. It is estimated that, on average, U.S. preschoolers spend 23 hours a week in front of the television and gradeschool students watch 29 hours each week. Add to this the time spent playing video games, using the Internet, doing homework, and eating dinner-and many kids spend a lot of time sitting still. Teaching children to enjoy being active is one of the most important lessons they can learn for their long-term health.
- Families can also put energy toward helping to improve "get healthy" opportunities for children in schools. Encouraging children to adopt a healthy, vegetarian eating style is another crucial lesson for their long-term health. Many schools are under financial pressure to downsize health and physical education programs, so health-conscious families should support school districts in their efforts to promote wellness and physical education and to promote healthier lunches in the cafeteria. School lunch programs are required to provide nutritious, low-cost meals to students; parents and teachers can help school officials understand what portions should be available for children.


## Sticking with It

The ease with which children transition into and stick with this healthy dietary pattern can be positively influenced by a variety offactors. Family support, by providing healthy foods, offering a variety of exercise opportunities, and setting a good example, is key. Educating your children to have a clear understanding of the health value of good eating habits will enable them to make the switch easily and maintain this diet at home, away from home, and throughout their lives.


For more information, please visit The Cancer Project's Web site:

## Sweet Ротato Muffins

Makes 12 muffins
3 cups whole-wheat pastry flour 1/2 cup raw or turbinado sugar 1 tablespoon baking powder 1/2 teaspoon baking soda 1 teaspoon cinnamon $1 / 2$ teaspoon salt
2 cooked sweet potatoes (about 1 cup mashed)
1 cup soy- or other non-dairy milk
1 tablespoon vinegar
1 cup golden raisins
vegetable oil spray
Preheat oven to $375^{\circ} \mathrm{F}$. Combine flour, sugar, baking powder, baking soda, cinnamon, and salt. Stir to mix. Mash sweet potatoes (if they aren't mashed already) in a separate large bowl, then stir in non-dairy milk and vinegar. Add flour mixture and raisins. Stir together until just mixed. The batter should be moist. Add a bit more non-dairy milk or water if the batter seems stiff. Spoon batter into a vegetable oil sprayed muffin pan, filling almost to the top. Bake 25 minutes, until tops of muffins bounce back when lightly pressed and a toothpick inserted into the center of a muffin comes out clean.

Per muffin: 198 calories; 1 g fat; 0.2 g saturated fat; $4.5 \%$ calories from fat; 0 mg cholesterol; 5.6 g protein; 45.1 g carbohydrate; 17.2 g sugar; 5.1 g fiber; 297 mg sodium; 125 mg calcium; 2.1 mg iron; 4.1 mg vitamin C; 2188 mcg beta-carotene; 0.7 mg vitamin E

## Cream of Broccoli Soup

Makes about 6 1-cup servings
1 onion, chopped
1 large russet potato, cut into chunks
3 garlic cloves
1 teaspoon celery seeds
1 teaspoon dried thyme
$1 / 2$ teaspoon dried marjoram
1/4 teaspoon turmeric
1/4 teaspoon black pepper
4 cups water or vegetable broth
1 15-ounce can garbanzo beans, undrained
4 cups broccoli florets
1-1 $1 / 2$ teaspoons salt, divided, to taste

Combine onion, potato, garlic, celery seeds, thyme, marjoram, turmeric, and black pepper in a large pot. Add water or vegetable broth. Cover and simmer until vegetables are tender, about 20 minutes. Stir in garbanzo beans and their liquid. Transfer to a blender in several batches, filling blender container no more than half full. Hold lid on tightly and start blender on the lowest speed. Process until completely smooth, 1 to 2 minutes per batch. Return blended soup to pot and stir in broccoli and 1 teaspoon salt. Cover and simmer until broccoli is tender when pierced with a knife, 5 to 10 minutes. Taste and add remaining salt, if desired.
Per 1 -cup serving: 151 calories; 1.5 g fat; 0.2 g saturated fat; $9.1 \%$ calories from fat; 0 mg cholesterol; 7.4 g protein; 29.1 g carbohydrate; 2.4 g sugar; 6.5 g fiber; 475 mg sodium; 75 mg calcium; 3.2 mg iron; 32 mg vitamin C ; 396 mcg beta-carotene; 1 mg vitamin E

## Garbanzo Burgers

Makes 6 4-inch patties
2 tablespoons sesame seeds
1 small onion, finely chopped (about $1 / 2$ cup)
1 small carrot, finely chopped (about 1/2 cup)
1 celery stalk, finely chopped (about 1/2 cup)
1 garlic clove, minced or pressed
1 15-ounce can garbanzo beans, drained
1/2 cup cooked bulgur or brown rice
1 tablespoon soy sauce
$11 / 2$ teaspoons curry powder
1 teaspoon ground cumin
$1 / 2$ teaspoon ground coriander
1/8 teaspoon cayenne pepper, or to taste
$1 / 2$ teaspoon salt
1-2 tablespoons potato flour vegetable oil spray


Toast sesame seeds in a dry skillet until they begin to pop and become fragrant. Grind in a food processor or blender, then transfer them to a mixing bowl. Add onion, carrot, celery, and garlic. Chop beans in a food processor, using an on/off pulsing action, or by hand using a potato masher. Leave some chunks. Add to vegetable mixture, along with bulgur or brown rice, soy sauce, curry powder, cumin, coriander, cayenne, and salt. Mix thoroughly. Stir in enough potato flour to form a stiff dough. Knead 30 seconds, then form into patties. Lightly spray a non-stick skillet with vegetable oil spray. Cook patties over medium heat until first side is lightly browned, then flip and cook second side until lightly browned, about 2 minutes on each side.

Per 4-inch patty: 130 calories; 3.2 g fat; 0.4 g saturated fat; $22.5 \%$ calories from fat; 0 mg cholesterol; 6 g protein; 20.7 g carbohydrate; 1.3 g sugar; 4.9 g fiber; 430 mg sodium; 45 mg calcium 2.3 mg iron; 2.2 mg vitamin C; 683 mcg beta-carotene; 0.4 mg vitamin E


## Berry Applesauce

Makes 4 1/2-cup servings
Serve this applesauce hot or cold.
2 cups peeled, cored, and chopped apples
2 cups fresh or frozen (unsweetened) strawberries, blueberries, or raspberries
$1 / 2$ cup frozen apple juice concentrate
1 teaspoon cinnamon
Combine all ingredients in a medium saucepan. Bring to a simmer, then cover and cook over very low heat for about 25 minutes, or until apples are tender when pierced with a fork. Mash lightly or purée in a food processor, if desired.

Per 1/2-cup serving: 108 calories; 0.4 g fat, 0 g saturated fat; $3.5 \%$ calories from fat; 0 mg cholesterol; 0.8 g protein; 26.9 g carbohydrate; 20.1 g sugar; 2.7 g fiber; 11 mg sodium; 29 mg calcium; 0.9 mg iron; 49.2 mg vitamin C; 13 mcg beta-carotene; 0.4 mg vitamin E

## Rice Pudding <br> Makes 6 servings

Jasmine or basmati rice works well in this pudding.
1 cup dry white rice
2 cups water
1/4 teaspoon salt
$11 / 2$ cups soy- or other non-dairy milk
1/3 cup maple syrup
2 tablespoons shredded coconut 1/2 teaspoon vanilla extract
$1 / 2$ cup golden raisins or chopped dried apricots
Combine rice, water, and salt in a saucepan. Cover and cook over low heat 15 minutes. Check occasionally, adding a small amount of water if necessary to prevent sticking. Stir in non-dairy milk, syrup or nectar, coconut, and vanilla, then cover and cook over low heat until thickened, about 20 minutes. Stir in raisins or apricots and serve.

Per serving (1/6 of recipe): 250 calories; 2 g fat; 0.8 g saturated fat; $7.4 \%$ calories from fat; 0 mg cholesterol; 5.1 g protein; 53.4 g carbohydrate; 20.1 g sugar; 1.5 g fiber; 142 mg sodium; 103 mg calcium; 2.2 mg iron; 0.5 mg vitamin



## Hummus

Makes about 2 cups
(8 1/4-cup servings)
1 15-ounce can garbanzo beans
2 tablespoons tahini (sesame seed butter)
1/4 cup lemon juice
3 green onions, chopped
1 tablespoon chopped garlic (about 3 cloves)
1 teaspoon ground cumin
$1 / 2$ teaspoon black pepper
1/2 cup roasted red peppers (optional)
Drain garbanzo beans, reserving liquid, and rinse beans. Place beans, tahini, lemon juice, green onions, garlic, cumin, black pepper, and roasted peppers, if using, in food processor and process until smooth. Add reserved bean liquid as needed for a smoother consistency.
Per 1/4-cup serving: 88 calories; 3.1 g fat; 0.4 g saturated fat; $31.3 \%$ calories from fat; 0 mg cholesterol; 4.1 g protein; 12.2 g carbohydrate; 0.7 g sugar; 2.9 g fiber; 34 mg sodium; 43 mg calcium; 1.7 mg iron; 3.8 mg vitamin C; 43 mcg beta-carotene; 0.2 $m g$ vitamin $E$

## Veǵgies in a Blanket

Makes 40 individual pieces
1 cup hummus (use commercially prepared variety, or recipe on this page)
8 -inch whole-wheat tortillas 4 carrots, grated
8 lettuce leaves, 1 cup baby spinach leaves, or 15 -ounce container sprouts

Spread hummus thinly on tortillas, then add carrots and lettuce, spinach, or sprouts. Roll up each tortilla, secure with 5 evenly placed toothpicks, and slice into 5 individual rolls per tortilla (1 toothpick per roll).

Variation: Add thin sticks of cucumber or red bell pepper before rolling.


Per serving ( 4 pieces): 127 calories; 3 g fat; 0.3 g saturated fat; $21 \%$ calories from fat; 0 mg cholesterol; 5.3 g protein; 21.1 g carbohydrate; 1.5 g sugar; 5.2 g fiber; 263 mg sodium; 27 mg calcium; 1.2 mg iron; 2.1 mg vitamin C; 1424 mcg beta-carotene; 0.4 mg vitamin E


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## Eggless Salad Sandwich

Makes 6 sandwiches
$1 / 2$ pound firm low-fat silken tofu (1 cup)
1 green onion, finely chopped
2 tablespoons pickle relish
2 tablespoons fat-free or low-fat dairy- and egg-free mayonnaise substitute (such as Fat Free Nayonaise) 2 teaspoons yellow mustard 1 teaspoon salt
1/4 teaspoon ground cumin $1 / 4$ teaspoon turmeric
1/4 teaspoon garlic powder
12 slices whole-grain bread 6 lettuce leaves
6 tomato slices


Mash tofu with a fork or potato masher, leaving some chunks. Stir in green onion, relish, mayonnaise substitute, mustard, salt, cumin, turmeric, and garlic powder. Spread on bread and garnish with lettuce and tomato.

Per sandwich: 175 calories; 3 g fat; 0.6 g saturated fat; $15.6 \%$ calories from fat; 0 mg cholesterol; 9.1 g protein; 30.5 g carbohydrate; 8.9 g sugar; 4.4 g fiber; 827 mg sodium; 67 mg calcium; 2.6 mg iron; 3.5 mg vitamin C ; 127 mcg beta-carotene; 0.4 mg vitamin E


## Colorful CORN SALSA

Makes 4 1/2 cups (18 1/4-cup servings)

1 cup fresh or frozen corn kernels 2 medium tomatoes, chopped
1/4 cup chopped red onion (about 1/2 medium red onion)
1/2 cup chopped green bell pepper (about $1 / 2$ medium bell pepper)
1/2 cup chopped orange bell pepper (about $1 / 2$ medium bell pepper)
10 fresh basil leaves, chopped juice of 1 lime
3 tablespoons rice or cider vinegar
If using fresh corn, blanch in boiling water for 3 minutes and rinse in cold water. If using frozen corn that isn't thawed completely, either blanch in boiling water for 2 minutes and drain or microwave until thawed.
In a large bowl, combine all ingredients and set aside for 15 to 20 minutes to allow the flavors to develop. Serve at room temperature.

Per $1 / 4$-cup serving: 13 calories; 0.1 g fat; 0 g saturated fat; $7.5 \%$ calories from fat; 0 mg cholesterol; 0.4 g protein; 3 g carbohydrate; 1.1 g sugar; 0.5 g fiber; 1 mg sodium; 4 mg calcium; 0.1 mg iron; 13.6 mg vitamin C; 88 mcg beta-carotene; 0.1 mg vitamin E

## Strawberry Smoothic

Makes 2 1-cup servings

Purchase fresh strawberries at the peak of the season, when they're bursting with flavor, to freeze for smoothies. Freezing them is easy: simply remove the stems and place the berries in freezer bags. They'll keep for up to six months. Frozen strawberries are also available in most supermarkets.
For a thick smoothie that can be eaten with a spoon, use the minimum amount of non-dairy milk necessary for blending. If you like a thinner smoothie, simply add a bit more non-dairy milk.

1 cup frozen banana chunks 1 cup frozen strawberries
2 tablespoons apple juice concentrate
1/2 teaspoon vanilla extract (optional)
1-1 1/2 cups soy- or other nondairy milk
Combine all ingredients in a blender. Process until smooth, stopping the blender as needed to push unblended fruit into the blades. Serve immediately.

Per 1-cup serving: 198 calories; 2.6 g fat; 0.4 g saturated fat; $12 \%$ calories from fat; 0 mg cholesterol; 5.9 g protein; 41.3 g carbohydrate; 23.7 g sugar; 5.6 g fiber; 76 mg sodium; 175 mg calcium; 2.1 mg iron; 72.3 mg vitamin C; 28 mcg beta-carotene; 2.1 mg vitamin E

## Foods That May Be New to You

The majority of ingredients in the recipes are common and widely available in grocery stores. A few that may be unfamiliar are described below. Additional vegetarian ingredients you may come across as you adopt this new eating pattern are also described below.

Arrowroot-is a fine white powder from a tropical plant. It functions as a thickener to replace cornstarch, which is more refined than arrowroot.

Brown rice-is an excellent source of protective soluble fiber as well as protein, vitamins, and minerals that are lost in the milling of white rice. Available in long grain and short grain varieties. Long grain, which is light and fluffy, includes basmati, jasmine, and other


Bulgur-is a grain made from wheatberries that have been cracked and toasted. Cooks quickly and has a delicious, nutty flavor. Bulgur is high in fiber and protein, contains easily absorbed minerals and vitamins, such as iron and calcium and folic acid. May also be sold as "Ala."

Carob powder-is the roasted powder of the carob bean, which can be used in place of chocolate in many recipes. One appeal of carob over chocolate is that carob is caffeine free.

Chickpeas-are also called garbanzo beans. These versatile, lightbrown beans have a nutty flavor and are a great source of protein, fiber, folate, vitamin B6, vitamin C, and zinc. They are available dried or canned.

Couscous-although it looks like a grain, couscous is actually a very small pasta. Some natural food stores and supermarkets sell a whole wheat version. Look for it in the grain section.

Nayonaise-is a cholesterol-free mayonnaise substitute that contains no dairy products or eggs. Look for the fat-free version.

Non-hydrogenated margarine-is margarine that does not contain hydrogenated oils (also known as "trans fats"). Hydrogenated oils raise blood cholesterol and can increase heart disease risk. Three brands of non-hydrogenated margarine are Earth Balance, Canoleo Soft Margarine, and Spectrum Spread.

Nutritional yeast-Nutritional yeast, not to be confused with either brewer's or baker's yeast, is cultivated specifically for use as a nutritional supplement. Nutritional yeast is an excellent source of protein and vitamins, especially the B-complex vitamins, and has a nutty, creamy, cheesy flavor. Certain nutritional yeasts, such as Red Star Vegetarian Support Formula Nutritional Yeast, are good sources of vitamin B12.

Miso ("mee-so")-is a salty fermented soybean paste used to flavor soup, sauces, and gravies. Available in light, medium, and dark varieties. The lighter-colored versions have the mildest flavor while the dark are more robust. Miso is rich in B vitamins and protein.

Potato flour-is used as a thickener in sauces, puddings, gravies, and baked goods.

Quinoa ("keen-wah")-is a whole grain high in protein that cooks quickly and may be served as a side dish, pilaf, or salad. Sold in natural food stores.

Rice milk-is one of several "grain milks" used in place of cow's milk. Because rice milk does not contain lactose, it is also suitable for those who are lactose-intolerant.

Seasoned rice vinegar-is a mild vinegar made from rice and seasoned with sugar and salt. Great for salad dressings and on cooked vegetables.

Seitan ("say-tan")-also called "wheat meat," is a high protein, fat-free food with a meaty texture and flavor.

Silken tofu-is a smooth, delicate tofu that is excellent for sauces, cream soups, and dips.

Soymilk-is non-dairy milk made from soybeans that can be used in recipes or as a beverage. Sold fresh in convenient, shelf-stable packaging. Calcium-fortified varieties are widely available.

Spike-is a seasoning mixture of vegetables and herbs. Comes in a salt-free version, as well as the original version which contains salt.

Tahini ("ta-hee-nee")-is sesame seed butter. Comes in raw and toasted forms (either will work in the recipes in this book).

Tempeh ("tem-pay")-is a hearty, fermented soy product that can be used in place of meat in many recipes.

## Textured (or texturized) vegetable protein

 (TVP) - is a high-protein meat substitute made from soy flour. It also contains a fair amount of fiber and is low in fat and carbohydrates. The flavor is neutral, so it absorbs the flavors with which it is cooked.Turbinado sugar-is also called "raw sugar" because it is less processed than white sugar.

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