

Kansas State University Agricultural Experiment Station and Cooperative Extension Service



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## What is a Nutrient-Dense or Nutrient-Rich Food?

People living in the U.S. are encouraged to eat a variety of nutrient-dense foods and beverages. This was one of the main recommendations of the *2010 Dietary Guidelines*. But what exactly does "nutrient-dense" mean? This issue of *Dining on a Dime* is going to answer that very question!

Nutrient-dense or nutrient-rich foods provide many healthful nutrients and few calories per serving. The phrase nutrient-dense sounds similar to the term energy-dense, but they have opposite meanings. Energy-dense foods are less desirable because each serving of them has more calories, more added fats or added sugars, and typically provides fewer healthful nutrients. Consider the calories in two nutrient-dense foods compared to two energy-dense foods:

Two nutrient-dense foods:		Two energy-dense foods:	
1 small baked potato	127 calories	2 ounces regular potato chips	291 calories
1 cup of raw apple slices	57 calories	1 cup sweetened applesauce	173 calories

The first example compares a small plain baked potato (140g by weight) with 2 ounces (57g by weight) of regular potato chips. The baked potato provides 164 fewer calories than the chips, has no fat and only 14 mg of sodium. The chips have 20g added fats and 337mg sodium. The baked potato is a more nutrient-dense choice than the chips. The second example compares fresh apple slices with sweetened applesauce. One cup of apple slices has 116 fewer calories than sweetened applesauce. The apple slices contain no empty calories, but the applesauce contains 56 empty calories from added sugars. One cup of apple slices is more nutrient-dense than sweet applesauce.

Each day, try to eat mostly nutrient-dense foods, such as vegetables, fruits, whole grains, fat-free or low-fat milk and milk products, seafood, lean meats, turkey and chicken without skin, eggs, nuts, seeds, and cooked dry beans. Try to limit intake of foods that are high in sodium, solid fats, added sugars and refined grains.

Turn the page and keep reading, as *Dining on a Dime* offers suggestions for how to make some of the most popular convenience foods more nutrient-dense and healthful.

Sources (Accessed 9/18/2014): 2010 Dietary Guidelines, Food-a-pedia and Nutrient Database, all at www.usda.gov

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## A Better "Boxed Meal"

Imagine it's a typical afternoon. Do you know what you're having for dinner tonight? Most adults living in the U.S. do not decide what to eat that night until 4



p.m. or later, according to a survey. For a quick meal, many cooks use packaged convenience foods. Most of these products are NOT nutrient-dense. (See page 1 of this issue of *Dining on a Dime* for a discussion of what this means). Instead, they are low in healthful nutrients and high in calories, sodium, solid fats, added sugars and refined grains. Some convenience foods are much more expensive than homemade recipes, too.

Read on for delicious and quick suggestions to boost the nutrient-density of a boxed or frozen packaged convenience food. See the recipe on page 4 for an example. Try the ideas described below to improve the taste of your meals — as well as its overall nutritional value.

#### To Decrease Fat:

- Use only half the butter or margarine called for in the instructions of boxed mixes for rice, pasta, stuffing, potatoes, or macaroni and cheese. Omit all of it for even greater calorie savings.
- Reduce the fat in ground beef when making a hamburger casserole boxed mix: Drain the fat from cooked ground meats. Then place it in a colander and rinse the meat with warm water. Let it drain, and continue with the regular directions.
- Substitute an equal amount of unsweetened applesauce for vegetable oil when preparing a boxed brownie mix. Substitute two egg whites for each whole egg to decrease the fat and calorie content even more.

#### To Decrease Sodium:

• Use only half of the seasoning packet that comes with packaged rice mixes, dry soup noodles, and frozen stir-fry meals. Add the remaining half at another meal, if desired, such as when cooking plain rice or noodles. Or use it as a seasoning for slow-cooked meats.

### To Add Nutrients:

- Add chopped or sliced vegetables such as broccoli, tomatoes or carrots — to a frozen pizza before baking it, and to canned soups.
- Add frozen chopped spinach to tomato-based sauces for pasta.
- Serve fresh or canned fruit for dessert instead of a sweetened food.
- If a packaged mix calls for 1 cup of milk, use 2/3 cup of nonfat dry milk powder and 1 cup of water instead. You will get twice as many nutrients, such as calcium, vitamins and protein, in each cup.

Source (Accessed 9/15/2014): Adapted from D Wyland and R Litchfield's <u>Healthy Meals in a Hurry: Tips</u>, Iowa State University Extension, *https://store.extension.iastate.edu/Product/Healthy-Meals-in-a-Hurry-Tips* 

You may view previous newsletters at *www.ksre.ksu.edu/HumanNutrition/p.aspx?tabid=184* This issue is an updated revision of the "Dining on a Dime June 2006" newsletter. Contents of this publication may be reproduced for educational purposes. All other rights reserved. In each case, credit Erin Henry and Mary Meck Higgins, "Dining on a Dime," October 2014.

# **Safety Concerns for Convenience Foods**

This issue of *Dining on a Dime* is dedicated to busy cooks who sometimes use convenience foods when serving meals. What are some of the food safety concerns to watch out for when using prepared convenience foods? Use the following tips to safely purchase, store and eat prepared convenience foods.

## **Refrigerated Deli Meats**

- Always heat hot dogs until they are steaming before eating them. Similarly, heat deli meats until they are steaming before eating them if you are pregnant, older or have weakened immunity.
- Refrigerate sliced chicken and turkey products purchased from the deli counter. Use them within three days of purchase.
- Refrigerate sliced beef and pork products purchased from the deli counter. Use them within five to seven days of purchase.

## **Prepared Foods**

- On salad bars, purchase only fresh-looking food items that are in containers packed in ice.
- Reheat pre-cooked foods. Eat them the same day that you purchase them.
- Refrigerate perishable items such as egg salad, macaroni salad and potato salad at a temperature below 40 degrees F.

## Canned, Boxed and Packaged Foods

- Avoid buying or using packaged foods that are torn or that are bulging, dented or leaking. Wash a can's lid with hot soapy water before opening.
- Store unopened canned, boxed and packaged foods in a cool dry place. Refrigerate perishable foods after opening the package.

#### Frozen Foods



- Purchase frozen foods from the back of the freezer at the store. These items tend to be kept the coldest.
- Don't refreeze thawed food items.
- Keep frozen foods tightly wrapped in a freezer at zero degrees F. or colder. Write the date on each package when you freeze it. Contact your local extension office for a list of recommended freezing times for various food products. Or print a chart describing safe food storage times from the website, www.ksre.ksu.edu/bookstore/pubs/MF3130.pdf

Source (Accessed 9/18/2014): Adapted from <u>Food Poisoning</u>: <u>Convenience Foods</u>, Academy of Nutrition and Dietetics, www.homefoodsafety.org/food-poisoning/convenience-foods

For more information about healthy eating, contact your local extension office. This material was funded by USDA's Supplemental Nutrition Assistance Program. The program can help people of all ages with low income buy nutritious foods for a better diet. To find out more, call 1-888-369-4777.



# Dining on a Dime's Cooks' Corner

'Make it a Meal' Macaroni & Cheese (Makes 4 servings, each about 1 1/2 cups) Serve with fruit and a glass of milk, if desired.

## **Ingredients**

1 box (about 7 ounces) macaroni and cheese dinner, any brand 16 ounces broccoli florets, fresh or frozen

2 tablespoons trans-fat-free soft margarine or butter 1/4 cup fat-free or low-fat milk

10 ounces of chunk light tuna, canned in water

#### **Directions**

1. In a large saucepan, boil about 6 cups of water. Add macaroni and broccoli. Boil for 7 minutes or until tender, stirring occasionally. Turn off the heat. Drain. 2. Put the mixture back in the saucepan. 3. Mix in 2 tablespoons margarine. Mix in the dry cheese. Mix in the milk. Finally, drain the tuna and mix it in. 4. Serve. 5. Cover and refrigerate leftovers within 2 hours.

**Nutrition Facts** per serving: 340 calories, 9g fat, 3g saturated fat, 0g trans fat, 43g carbohydrates, 24g protein, 40mg cholesterol, 790mg sodium and 4g dietary fiber. Daily Values: 70% vitamin A, 180% vitamin C, 15% calcium, 15% iron.



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