

# Convenience Foods

## Summary

Use of convenience foods in meal preparation

## Materials

Any good food and nutrition book.

" *The New Food Label: There's Something in it For Everybody*," High School Kit, PDF file available at [www.fda.gov](http://www.fda.gov)

## Note:

references to "New Food Labels" are from 1993 when food label laws were changed. At printing of this guide, food label guidelines had not changed, except for requiring trans fat content and allergens on labels.

## Background for Teachers

If family members can distinguish when to use convenience foods, when to prepare meals from scratch, and when to use a combination of the two, they will have meal preparation alternatives for a wide variety of circumstances.

Convenience foods are used to shorten the time of meal preparation at home. Some foods can be eaten immediately or after adding water, heating or thawing; canned soup and frozen dinners are two examples. Other convenience foods such as cake mixes are only partially prepared.

Food technology has made convenience foods possible. Convenience foods are so much a part of our lives that we don't stop to think about the time when they were not available. Your parents or grandparents may be able to remember the first convenience foods they purchased. Many dehydrated foods were used during World War II. After the war, companies began marketing more dehydrated foods to the general public. For example, Pillsbury marketed the first cake mixes in 1948. The only flavors available were white and chocolate fudge. The company assumed that a family did not own a mixer. The instructions on the box directed you to beat the mix a specific number of strokes with a wooden spoon. These first cake mixes did not have the light texture that they do today. The texture was about as coarse as cornbread. It took Pillsbury about ten years to achieve a finer texture. Some convenience foods have exciting histories. The convenience breakfast drink, Tang, was a flop when it was first available on the market. NASA picked it up in 1968 because it worked better in space than natural juices. Natural juices would cake in a vacuum. Tang did not cake under the same circumstances. Soon after it was used in space, the company that manufactures Tang advertised that astronauts drink it in space. Tang became popular almost immediately.

The amount of research and preparation that has been put into a convenience food affect its cost. The cost of convenience foods includes not only the food but also the processing, packaging, labor, management, shipping, and marketing. Some convenience foods cost the same as foods prepared from scratch. Other convenience foods cost a great deal more than foods prepared from scratch. The cost depends in part on what it would cost to purchase the ingredients individually. Some homemade foods prepared with basic ingredients cost less than the same convenience foods.

To purchase all convenience foods can require a larger food budget than preparing meals from scratch or in combination with convenience foods. The family budget must be considered when planning meals with convenience foods and foods from scratch. A family that is experiencing financial difficulty would not want to prepare all of their meals using convenience foods. Careful planning and price comparisons would need to be done. The desired amount, equipment, ingredients and supplies are additional considerations in planning.

Convenience foods allow family members with busy schedules to have a quick meal at home with or

without family members. Families on the go may feel that the ease of preparing convenience foods makes up for the extra cost. The life style of families who use all convenience foods is different than the life style of those who prepare most meals from scratch. The amount of time spent interacting with family members during the preparation and cleanup of convenience food is less than with food prepared from scratch. Families who prepare meals from scratch or in combination with convenience food, therefore, have an advantage over families who do not spend very much time together. The ease of convenience foods increases the likelihood that people will eat alone at varying times of the day. Convenience food allow people to operate on schedules so independent from each other that family members won't spend time together unless they consciously schedule it. Mealtime may be one of the few times family members come together. For many families mealtime is a gathering time. The nutritional value of a number of convenience foods is lower than foods prepared from scratch. For example, a frozen convenience meal may not include a large enough portion of vegetables and will exclude fruit totally. If a family did not supplement many convenience foods with fruits and vegetables it would be impossible to get the number of servings recommended in MyPyramid. Many convenience foods also contain a high percentage of fat. Some companies add certain ingredients to cut costs thereby creating products that have lower nutritional value than foods prepared from scratch. The ability to read labels is an invaluable skill when selecting convenience foods.

Convenience food and food prepared from scratch can help or hurt families if used at the wrong time. The decision-making process must be used as you consider your circumstances. Convenience foods and foods prepared from scratch will be more appropriate at different stages of your family's life. For example, some families are so busy during the week that convenience foods are the best way to meet nutritional needs. On weekends the same families may have more time to prepare foods from scratch and in combination with convenience foods.

When deciding whether to prepare foods from scratch or use convenience foods, the age and ability level of family members as well as the nutritional value of food must also be taken into account. Preparing a box of macaroni and cheese may be easier for a child who is home alone than preparing some foods from scratch. The ease of convenience foods can greatly simplify meal preparation for the elderly and people in poor health. People who live alone and have the income to purchase convenience foods often do so due to lack of motivation to prepare foods from scratch. Imagine that several people within the same family had different health considerations each requiring different foods. Convenience foods could greatly simplify the amount of preparation required.

Convenience foods can be used in creative ways. They can be added as an ingredient in a recipe. For example, condensed or dehydrated soups are often used in casseroles, meat loaf, and dips. It is possible to combine convenience foods to create a new food. For example, a can of chili, hot chili and stewed tomatoes could be combined to make a chili that tastes like it was homemade.

Convenience foods save time because the selection and measuring of many ingredients has already been done. Convenience foods, however, do not completely eliminate the need to understand scientific principles and correct techniques. If you understand basic principles and the reasoning behind certain techniques, the preparation directions will make more sense and the likelihood of making mistakes is decreased.

#### FAT ARITHMETIC

( *What's New in Home Economics, January/February 1991*)

In the summer of 1988, the Surgeon General released a report suggesting consumers reduce fat content consumption to 30% or less of the total calories digested in a given food. Since most recipes don't identify the amount of fat grams or calories, how can the average consumer be expected to trim the fat intake in his/her diet? By using the following rules, you can teach students how to eye any recipe and know how the fats stack up.

To figure out the percentage of fat to calories on store-bought items, you need to know the grams of fat in a serving and that there are nine calories in a gram of fat. If the calories per

serving listed in a package label is 360 and there are four grams of fat per serving, the calories from fat are 36. By dividing 36 by 360, you find that only 10% of the calories in the food come from fat.

Many of your favorite recipes don't give you a clue as to how many calories there are per serving. Make an educated guess if you remember that carbohydrates, such as the sugar or starch found in fruits, vegetables, breads, cereals, grains, flours and sweeteners, and proteins have four calories per gram. Fat has nine calories per gram.

The most nutritious rule is to use cookbooks and recipe files that tell you the fat and calories in a serving.

\* A simple internet search will help you find ways to adjust favorite recipes to make them lower in fat and still tasty.

## FOOD LABELING

Does ingredient and nutrition information on the label influence what Americans buy? "A great deal," or "some influence" is what 83% of the people said who responded to a recent survey conducted by the National Food Processors Association. And, according to the survey, American consumers want more information. True, many labels do already list calories, protein, carbohydrates, fat and certain vitamins and minerals, but labeling was voluntary except if a nutritional claim is made or a product contains added vitamins or minerals. This was the case a few years ago.

The Food and Drug Administration was successful in getting legislation through Congress which became law in 1993. New labels must appear on packages in the manufacturing process by the following dates: FDA-regulated products by May 8, 1994 and FSIS-regulated products by July 6, 1994. The nutrition labeling law is very specific about what must be on labels of most food products. Because of the complexity of the law, it is suggested that every teacher of Food and Nutrition become acquainted with the law. Packets of information have been prepared by the USDA and are available from them on their website. There are two significant changes to the labeling since 1993 that became effective January 1, 2006. Because of recent research on the especially harmful nature of trans fats, labels must now list the amount of trans fats in a product. Labels must also state if food products contain any ingredients that contain protein derived from the eight major allergenic foods--milk, eggs, fish, crustacean shellfish, tree nuts, peanuts, wheat, or soybeans.

The law requires labels to include Nutrition Facts, which considers the nutritional health issues of greatest concern. Some differences include:

The serving size is now set by the FDA rather than the manufacturers, to accurately reflect the amount of food people actually eat. In the old label, if a product was high in fat, the manufacturer could make the serving size smaller to make the fat content appear smaller. The serving size was not consistent; it now must be.

Fat is expressed in calories rather than grams so that an individual can compare the number of fat calories to the total number of calories in the product. For example, if there are 90 total calories and 30 of them are from fat then the % of fat is 33%. This eliminates the necessity to convert grams to calories.

(NOTE: the students still need to know how to make the conversion since recipes and other sources of fat information will not automatically be changed--only food labels.)

There is a section on the label giving the percent daily value of the nutrients considered the most important to good health. The percent daily values are based on a person's eating 2,000 calories a day. If a person eats only 1,000 calories a day, he/she would need to adjust the calculation of fat or other nutrients in half. If a person eats 4,000 calories a day, they would need to adjust the calculation by doubling the percent given on the label.

Perhaps the best use of the percent daily value information on the label would be in comparing products and choosing the product with the lesser value. The saturated fats heading can be helpful, because saturated fats are thought to be more harmful in terms of heart disease than unsaturated

fats.

The problem of using only one level of caloric intake may exist for total carbohydrate and protein, because they both vary with total caloric intake.

Knowing the amount of dietary fiber will be helpful but the sugar value may be a problem because it includes naturally occurring sugars as well as those that are added. Foods like yogurt, milk and fruit juices will appear high in sugar.

The cholesterol and sodium values will apply to all individuals since these recommendations are not based on caloric intake. The National Cholesterol Education Program recommends less than 300 milligrams of cholesterol a day; salt should be limited to no more than 2,400 milligrams a day.

## Instructional Procedures

### LEARNING ACTIVITIES AND TEACHING STRATEGIES

#### OPTION #1

To introduce the unit have the students drink Tang instant breakfast drink. Refer to content for information on the history of Tang and other common convenience foods.

#### OPTION #2

Have the students compare the cost, taste, nutritional value and preparation time of a convenience food and a food prepared from scratch. Half the lab groups could prepare a stir-fried vegetable kit (a frozen convenience food) and the other half could prepare [STIR-FRIED VEGETABLES](#).

NOTE TO TEACHER: Save your sales receipts.

After the students have tasted both recipes, chart the differences on the chalk board with the class, i.e. cost, ingredients/nutritional value, taste preferences, and time. Discuss under what circumstances each meal would be more appropriate--refer to the content.

Other options could include 1) canned spaghetti and/or sauce vs. homemade, 2) homemade French fries vs. frozen French fries, 3) instant potato flakes vs. mashed potatoes (since microwaving is much faster than boiling, use of the microwave may be more practical if lab time is limited).

#### OPTION #3

Using [LABELING LAW INFORMATION SHEET](#), discuss the labeling laws. Have students bring in food labels from home or refer to labels on products in the classroom so you can read them and see that they meet requirements.

#### OPTION #4

Assign students to bring convenience food labels from home. Have small groups of students create a day's [menu](#) from the labels and evaluate the nutritional value of one-day menus that utilize mainly convenience foods. Students should refer to MyPyramid and read the labels. Ideally, the menus should include the number of servings suggested in MyPyramid and contain no more than 100% of the daily value for carbohydrates, fat, cholesterol and sodium. Have the students pinpoint problems and add or subtract foods, if needed. Discuss as a class.

#### OPTION #5

Have the students prepare a food that uses a convenience food as an ingredient in the recipe. Using [MINI PIZZAS](#) recipe. (The Rhodes roll dough in this recipe can be covered with plastic and thawed in seconds in the microwave\_\_\_see the instructions on the package).

OR

Have the students combine several convenience foods for an entre that tastes homemade, i.e. a chili that tastes homemade could be created with 1 can hot chili, 1 can regular chili and 1 can stewed tomatoes. Browned ground beef can also be added.

#### OPTION #6

Assign each unit group a different theme from the list below. Each group should create a story that illustrates how a particular family plans and prepares meals. Students should describe an example of

how the family uses convenience foods, foods from scratch, or a combination of the two. The students' decision about how the family in their story prepares meals should be based on that family's circumstances. After a unit spokesperson reads each group's story aloud, ask the class if they agree with the meal preparation decisions in the story. Ask students if other alternatives are possible solutions.

Themes:

- a family on a very tight budget
- a family with a busy schedule and a substantial food budget
- a large middle income family, sometimes with a busy schedule
- family members who rarely see each other during the week
- an elementary-age child who is home alone
- an elderly person who has arthritis
- other circumstances of your choice

OPTION #7

Have the students dissect a frozen (thawed) or cooked meat pie and put all of the peas in a small dish or bowl. Do the same thing for all the other ingredients in the pie - carrots, celery, meat, etc., - whatever it might be. Compare the amount of each ingredient and analyze the value of its nutrients.

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