

# HEALTH IN OUR HANDS!

The Arkansas State University Wellness Program Newsletter  
[www.clt.astate.edu/wellness](http://www.clt.astate.edu/wellness)



## What is Nutrition?

Nutrition is defined as the provision of materials necessary to sustain life. These necessary materials are known as nutrients. There are six major classes of nutrients: carbohydrates, dietary fiber, fats, minerals, protein, vitamins, and water.

Nutrient classes can be categorized as either macronutrients or micronutrients. Macronutrients are needed in relatively large amounts. Macronutrients include carbohydrates, fats, protein, and water. Macronutrients, excluding water, provide structural material and energy. Micronutrients include minerals and vitamins.

Nutrients are found in various mixtures within the foods. The mixtures of the various nutrients give the human body energy. This energy comes in the form of Calories. Calories are found in fat, protein and carbohydrates. Protein contains 4 calories for every gram. Fat contains 9 calories for every gram. Carbohydrates contain 4 calories for every 1 gram. Alcohol contains 7 calories for every gram. If more calories are taken in than is burned through physical activity and functioning through the day, a person will gain weight. The opposite happens if fewer calories are taken in than burned with physical activity.

## Nutrition

### Current Nutritional Guidelines

The dietary guidelines are jointly issued and updated every five years by the departments of Agriculture and Health and Human Services. They provide authoritative advice for Americans ages 2 and older about consuming fewer calories, making informed food choices, and being physically active to attain and maintain a healthy weight, reduce risk of chronic disease, and promote overall health.

The current Dietary Guidelines describe a healthy diet as one that

- Emphasizes fruits, vegetables, whole grains, and fat-free or low-fat milk and milk products
- Includes lean meats, poultry, fish, beans, eggs, and nuts
- Is low in saturated fats, trans fats, cholesterol, salt(sodium), and added sugars

These guidelines are not set-out for individuals with chronic health conditions. These individuals should consult with a health care provider to determine what dietary pattern is appropriate for them.

### Food Groups

The food taken into the body provides the nutrients needed to sustain life. Different foods

provide various types of nutrients. Foods fall into five basic food groups: grains, vegetables, fruits, dairy, and protein. The number of servings of each food group that should be consumed varies by age, sex, and level of physical activity.

**Grains** are any foods made from wheat, rice, oats, cornmeal, barley, or other cereal grain. Grains are an important source of many nutrients, including dietary fiber, several B vitamins, and minerals. Bread, pasta, oatmeal, breakfast cereals, tortillas, and grits are examples of grain products. Grains can be sub grouped into two groups; whole grains and refined grains. Whole grains contain entire grain kernel; bran, germ, and endosperm. Examples of whole grain include whole wheat flour, oatmeal, whole cornmeal, and brown rice. Refined grains are grains that have been milled, which is a process that removes the bran and germ. Milling gives the grain a finer texture and improves shelf life. Milling removes dietary fiber, iron, and many B vitamins. Examples of refined grain products includes white flour, white bread, and white rice. Many refined grains are “enriched”, meaning that certain B vitamins and iron are added back after processing. If buying refined grains look on the label for the word “enriched” in the name of the product. Some products may contain a mixture of whole grains and refined grains. When shopping

for grain products look for the words “whole grains” or “whole wheat” on the label to decide if they are made from whole grain. Also look for bran in the list of ingredients. Bran provides fiber, which is important for health. Products with added bran or bran alone are not necessarily whole grain products. Make half your servings of grains whole.

**Vegetables** or 100% vegetable juice count as a member of the vegetable group. Vegetables may be raw or cooked; fresh, frozen, canned, or dried; and may be whole, cut-up, or mashed. Vegetables are sub-categorized in to 5 categories, based on their nutrient content.

- Dark green vegetables are a good source of many vitamins and minerals your body needs to stay healthy, such as vitamin A, C, and K, folate, iron, and calcium. They are also a great source of fiber. Some research suggests that the nutrients found in dark green vegetables may prevent certain types of cancer and promote heart health. Examples of these vegetables include: broccoli, spinach, romaine lettuce, bok choy, and turnip greens.
- Orange vegetables contain Beta-carotene. Beta-carotene protects these vegetables and fruits from solar radiation damage. Beta-carotene is thought to play a similar role in the human body. Examples of orange vegetables include: acorn squash, carrots, pumpkin, and sweet potatoes. Tomatoes, kale, and collards are just a few other foods that contain beta-carotene.
- Dry beans and peas are low in fat and high in quality protein. Beans and peas provide soluble fiber, which help to lower LDL cholesterol levels without

compromising the level of protective HDL cholesterol. Beans also contain substantial insoluble fiber, which helps combat constipation, colon cancer, and other conditions that afflict the digestive system. Beans also contain a number of vitamins and minerals including folic acid, copper, iron, and magnesium. Common beans and bean products include: black beans, black-eyed peas, chickpeas, lentils, and tofu.

- Starchy vegetables contain higher starch levels than other vegetables and are metabolized in the body more like grain. Starchy vegetables are generally used as the main starch portion of a meal. Starchy vegetables are higher in carbohydrates than other non-starchy vegetables. These vegetables contain dietary fiber, vitamins A and C, and potassium. Examples of starch vegetables include: potatoes, corn, green peas, and lima beans.
- “Other vegetables” is a subcategory that describes those vegetables that do not fall into one of the other categories exclusively. Examples of these vegetables include artichokes, asparagus, bean sprouts, beets, and cucumbers.

**Fruit** provides many health benefits. Eating a diet rich in fruits and vegetables as part of a healthy diet may reduce risk for stroke and other cardiovascular diseases. A diet high in fruits and vegetables may also protect against certain cancers. These are just a few of the health benefits of diet rich in fruits and vegetables. Fruits are not only high in many vitamins and minerals, but many are high in fiber. Examples of fruits include: apples, berries, grapefruit, melons, and plums. Fruit can be consumed

from the following sources: fresh, canned, frozen, or dried. Fruits may be whole, cut-up, or pureed.

The **dairy** group includes fluid milk or products made from milk. Foods made from milk that retain their calcium are part of this group. Those foods that do not retain their calcium after processing are not part of the dairy group. Examples of foods that do not retain their calcium after processing include: cream cheese, cream, and butter. Dairy group choices should be fat-free or low-fat. Milk contains nutrients such as calcium, potassium, and vitamin D. Dairy products include frozen yogurt, hard natural cheeses, soft cheeses, processed cheeses, and yogurt.

**Proteins** include meat, poultry, fish, dry beans and peas, eggs, nuts, and seeds. These provide many nutrients, such as B vitamins, vitamin E, iron, zinc, and magnesium. Protein functions as building blocks for muscles, cartilages, bones, skin, and blood. Protein is also a building block for enzymes, cartilage, hormones, and vitamins. Proteins are one of the three nutrients that provide calories. When considering the protein group, fat should also be considered. Many sources of protein are also sources of fat. Knowing the fat content of the protein source is important when making healthy decisions. The first decision to make is lean. Lean beef cuts include round steaks and roasts, top loin, top sirloin, and chuck shoulder, and chuck shoulder, just to name a few. Lean pork choices includes pork loin, tenderloin, center loin, and ham. Choose extra lean ground beef. The label should say 90% lean. Lean poultry choices include boneless skinless chicken breast and turkey cutlets. When prepping the meat always trim away extra fat. Also vary your protein sources.

Throughout the week change it up. For example, eat chicken one day and fish another. Protein should not be the largest portion of your meal. Americans greatly over eat protein, leading to the excess being stored in the body as fat. Fish and nuts are great sources of Omega-3 fatty acids, which are believed to lower LDL cholesterol.

**Oils** are not designated as a food group, but understanding the nutritional values of this group is important. Oils are fats that are liquid at room temperature, like the vegetable oils used in cooking. Oils come from many different plants and from fish. Some common oils are: canola oil, corn oil, cottonseed oil, and olive oil. Many oils are used mainly for flavoring, such as walnut oil and sesame oil. The following foods are naturally high in oils: nuts, olives, some fish, and avocados. Choosing oils made from nuts or vegetables are the best choice for cooking. Try to avoid animal fats, mayonnaise, butter, and shortening. These are high in saturated fat.

For a better understanding of the food groups and the portion sizes necessary please visit the website: [mypyramid.gov](http://mypyramid.gov). This site has many interactive programs that allow users to find the appropriate number of servings and serving sizes for their age, sex, and physical activity level.

### Reading Food Label

Learning how to read and understand food labels can help you to make healthier choices. The following are some tips for making the most of the information on the Nutritional Facts Label:

- Note the size of a single serving and how many servings are in the package.
- Check total calories per serving. Look at the serving size and

how many servings you are really consuming. If you double the serving you eat, you double the calories and nutrients, including the Percent Daily Value.

- Limit these nutrients. Limit your fat to no more than 56-78 grams a day-including no more than 16 grams of saturated, less than two grams of trans fat, and less than 300mg cholesterol
- Get enough of these nutrients. Make sure to get 100% of the fiber vitamins and other nutrients you need every day.
- % DV tells you the percent of each nutrient in a single serving in terms of daily recommended amount.
- If the label states calorie free it really means less than 5 calories. Sugar free really means less than 0.5 grams of sugar. Fat Free equals less than 0.5 grams of fat. For more truths to food labels look checkout this site:  
[http://www.heart.org/HEARTORG/GettingHealthy/NutritionCenter/HeartSmartShopping/Reading-Food-Nutrition-Labels\\_UCM\\_300132\\_Article.jsp](http://www.heart.org/HEARTORG/GettingHealthy/NutritionCenter/HeartSmartShopping/Reading-Food-Nutrition-Labels_UCM_300132_Article.jsp)

### ASU Nutrition Programs

A new degree program at ASU is the B.S. in Nutritional Science. This program will produce graduates who are eligible to take the registration examination for dietitian and be eligible for employment as an entry-level dietitian. For more information, contact

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### Other News:

\*\*If you have any suggestions for newsletter topics, please contact Dean Susan Hanrahan at [hanrahan@astate.edu](mailto:hanrahan@astate.edu).

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The Arkansas State University Employee Wellness Newsletter is published monthly during the academic year by the College of Nursing and Health Professions. Health questions can be addressed to Dean Susan Hanrahan, Ph.D., ext. 3112 or [hanrahan@astate.edu](mailto:hanrahan@astate.edu). Produced by Helen Grimes, graduate student in the College of Nursing and Health Professions, Physical Therapy Program.