

Go Lean With Protein



The Meat and Beans group is represented by the purple band on MyPyramid, USDA's latest food guide, which shows that foods from all groups are needed daily for good health.

The 2005 Dietary Guidelines for Americans recommends that most adults and children eat about 5½ ounce equivalents of protein daily. This is based on a 2,000-calorie diet and is part of an overall healthy eating plan.

Most Americans eat enough food from the meat and beans group. However, meat choices should be leaner, and more selections from this group should include fish, beans, eggs, nuts and seeds. The Dietary Guidelines recommends choosing lean cuts of meat and poultry prepared in a low-fat way.

While foods in the meat & beans group provide vital nutrients, remember to choose foods that are low in saturated fat and cholesterol to avoid health problems. Fish, nuts, and seeds contain healthy oils, so eat them frequently instead of meat or poultry. Use nutrition labeling to identify lean packaged meats.

Remember that when you consume a large amount of fats in your diet, you usually get more calories than your body needs. You will gain weight unless you add more physical exercise to your routine.

Watch portion sizes. Many restaurants serve portions of meats and fish that often exceed the

entire daily recommendation for protein. To moderate your intake of meats and fish when eating out, share your entrée with someone or take the leftovers home with you.

FOODS IN THE MEAT & BEANS GROUP

The meat and beans group includes all foods made from meat, poultry, and fish, as well as dry beans and peas, eggs, nuts and seeds. Dry beans and peas are part of both the vegetable group and the meat and beans group, but do not count them twice.

Vary your choices in this group so that you are eating fish, beans, nuts and seeds on a more regular basis, because they contain heart-healthy oils. Replace meat or poultry with nuts, but avoid eating nuts in addition to them. Choose dry beans or peas as a nutritious main dish or as part of a meal often.

Most meat and poultry choices should be lean or low-fat. This keeps the saturated dietary fats and cholesterol lower. Lean cuts of meat include the loin and round cuts, such as sirloin, tenderloin, top loin, eye of round, and top round.

Some commonly eaten choices include:

Meats: lean cuts of beef, ham, lamb, pork and veal; lean ground meats like beef, pork and lamb; lean luncheon meats, and game meats such as rabbit, venison and bison.

Fish: finfish—catfish, cod, flounder, haddock, halibut, herring, mackerel, Pollock, porgy, salmon, sea bass, snapper, swordfish, trout and tuna; shellfish—clams, crab, crayfish, lobster, mussels, octopus, oyster, scallops, squid (calamari), shrimp; canned fish—anchovies, clams, tuna and sardines.

Poultry: chicken, turkey, ground chicken and turkey, duck and goose.

Eggs: chicken and duck eggs.

Dry beans and peas: black beans, black-eyed peas, chickpeas (garbanzo beans), falafel, kidney beans, lentils, lima beans (mature), navy beans, pinto beans, soybeans, split peas, tofu (bean curd made from soybeans) and white beans; bean burgers—garden burgers and veggie burgers; tempeh and texturized vegetable protein (TVP).

Nuts and seeds: almonds, cashews, hazelnuts (filberts), mixed nuts, peanuts, peanut butter, pecans, pistachios, pumpkin seeds, sesame seeds, sunflower seeds and walnuts.

NUTRIENTS IN MEAT & BEANS GROUP

Protein builds, repairs and maintains all body tissues including bones, muscles, cartilage, skin and blood. It also helps to fight infections, is a good source of energy, and serves as building blocks for enzymes, hormones, and vitamins. Protein, carbohydrates and fat are the three nutrients that provide calories.

B vitamins help the body to release energy, play a vital role in the function of the nervous system, help form red blood cells, and help build tissues. The B vitamins include niacin, thiamin, riboflavin and B6.

Vitamin E, an anti-oxidant, helps protect vitamin A and essential fatty acids from cell oxidation. Sunflower seeds, almonds, and hazelnuts (filberts) are the richest sources of vitamin E in this group.

Iron is a mineral that carries oxygen in the blood to body cells and helps protect against infections. Iron deficiency often leads to anemia, which causes you to feel tired and weak. Many females develop iron-deficiency anemia in the child-bearing years and need more meat and beans in their diet. To help reduce anemia, many foods are being enriched or fortified with iron. Breakfast cereals and flour are two examples.

Heme iron, which comes from animal sources of food, usually is better absorbed than *nonheme iron* from plant sources. To improve absorption of *nonheme iron*, eat a food rich in vitamin C or a meat along with it.

Zinc helps the immune system function properly and is necessary for biochemical reactions.

Magnesium helps in building bones and in releasing energy from muscles.

HOW MUCH IS NEEDED?

Most people should eat about 5½ ounce equivalents of protein daily. The specific amount of food needed from the meat and beans group depends on age, sex, and level of physical activity. The chart below shows amounts that are appropriate for people who get less than 30 minutes per day of moderate physical activity, beyond normal daily activities. If you are more physically active, you may be able to consume more while staying within your calorie needs.

Daily Recommendations for Meat and Beans		
	Age	Ounce Equivalents
Children	2-3 years	2
	4-8 years	3-4
Girls	9-18	5
Boys	9-13 years	5
	14-18 years	6
Women	19-30 years	5½
	31+ years	5
Men	19-30 years	6½
	31-50 years	6
	51+ years	5½

A 3-ounce portion of meat is about the size of a deck of cards. That is a little more than half the recommended amount of protein food from the meat and beans group that is needed by a person eating 2,000 calories a day.

Americans usually eat adequate amounts from the meat and beans group. However, we need to select a wider variety of leaner foods and include fish, beans, nuts and seeds more often.

WHAT COUNTS AS AN OUNCE OF MEAT & BEANS?

1-ounce equivalent = 1 ounce of cooked meat, poultry, or fish
¼ cup of cooked dry beans or peas
1 egg
1 tablespoon of peanut butter
½ ounce of nuts or seeds

Other 1-Ounce Equivalents:

1 sandwich slice of turkey (4½" x 2½" x ⅛")
1 oz. shell fish
¼ cup of baked beans or refried beans
1 Tbsp. of peanut butter or almond butter
Nuts: 12 almonds, 24 pistachios, or 7 walnut halves
¼ cup, or about 2 oz., of tofu (made from soybeans)
1 oz. of cooked tempeh (made from soybeans)
A 2¼" falafel patty, 4 oz. (made from chick peas or fava beans)
2 Tbsps. hummus (made with chick peas, or garbanzo beans and sesame oil or paste)

2-Ounce Equivalents:

1 cup soup (pea, lentil, bean)
1 soy or bean burger patty
1 small, lean hamburger (2 to 3 oz.)

3-Ounce Equivalents:

1 small chicken breast half
1 small trout
1 can tuna, drained (3 to 4 oz.)
1 can chicken, white chunk, drained

4-Ounce Equivalents:

1 small steak—eye of round, filet (3½ to 4 oz.)
½ Cornish game hen

GO LEAN

Know Your Fats: In general, foods from animal sources, such as meats, are naturally higher in fat and cholesterol than foods from plant sources. The recommendation of the 2005 Dietary Guidelines for Americans is to keep total dietary fats to 20-35% of calories. Most choices should be polyunsaturated and monounsaturated fats, such as from fish, nuts, and vegetable oils. Less than 10% of calories, or about one-third of total fat intake, should come from saturated fats.

Select foods low in saturated fats and cholesterol to help reduce your risk of heart disease. (Note: 5% Daily Value or less is low, 20% Daily Value or more is high). Most of the fats you eat should be polyunsaturated and monounsaturated.

In addition, consumption of trans fats should be kept as low as possible. Trans-fatty acids (trans fats) are created by the process of hydrogenation, and they act like saturated fats in the body. A diet high in saturated fats and trans fats raises LDL cholesterol levels in the blood and increases the risk for coronary heart disease. LDL (low-density lipoprotein) is “bad” cholesterol, and HDL (high-density lipoprotein) is “good” cholesterol.

Limit Foods High In Saturated Fats: To help keep blood cholesterol levels healthy, limit these foods that are high in saturated fat.

- fatty cuts of beef, pork and lamb.
- regular ground beef—75% to 85% lean.
- regular sausages, hot dogs and bacon.
- regular luncheon meats like bologna, salami and other cold cuts.
- some fatty poultry, such as duck.

Limit Foods High In Trans Fats: These foods are high in trans fats, so eat them on a limited basis.

- commercial baked goods like cakes, pies, cookies, crackers, rolls and doughnuts.
- fried fast foods such as burgers, chicken, fish, French fries, and anything fried in commercial “vegetable oils.”
- potato chips, buttered popcorn, corn chips, and other fried snacks.
- salad dressing and mayonnaise.
- most hardened margarines and shortenings.

Limit Dietary Cholesterol: Consume less than 300 milligrams per day, and watch your intake of protein foods that are high in dietary cholesterol. This includes egg yolks and organ meats like brains, liver, giblets, chitterlings, sweetbreads, and tongue.

Dietary cholesterol is found only in foods from animal sources. It can raise LDL (“bad”) and lower HDL (“good”) cholesterol levels in the blood, although it does not automatically become cholesterol in the blood. Generally saturated fat and total fat in the diet affect blood cholesterol levels more than dietary cholesterol affects it.

Vary Protein Choices: Include fish, beans, nuts and seeds in your meals more often. This will boost your intake of mono and polyunsaturated fatty acids, the two essential fats that the body cannot make from other fats. Some nuts and seeds, such as flax and walnuts, are excellent sources of essential fatty acids.

Follow these tips for selecting low-fat protein foods.

- Eat fish more often, especially those rich in omega-3 fatty acids (salmon, trout, herring).
- Enjoy beans and other protein-rich foods:
 - soups made with split peas, minestrone, lentils, or white beans.
 - baked beans.
 - black bean enchiladas.
 - garbanzo or kidney beans on chef’s salad.
 - rice and beans.
 - chili with kidney or pinto beans.
 - veggie burgers or garden burgers.
 - hummus (chickpeas) spread on pita bread.
 - a stir fry dish with tofu.
- Replace meat or poultry with nuts in main dishes, snacks, vegetables and salads.
 - Add slivered almonds to steamed vegetables.
 - Use toasted peanuts or cashews in a vegetable stir fry.
 - Put walnuts or pecans in a green salad rather than cheese or meat.
 - Add pine nuts to the pesto sauce for pasta.
 - Sprinkle some nuts over low-fat ice cream or frozen yogurt.

Choose Lean Or Low-Fat Cuts Of Meat: Here are some basic guidelines for selecting healthy meats.

Beef: Look for the words “round” and “loin”—round steaks and roasts, top loin, top sirloin, chuck shoulder and arm roasts. Choose extra lean ground beef, which is at least 90% lean, and possibly as much as 93% or 95% lean.* Ground meat that is as much as 95% lean can be used in casseroles. When grilling, however, choose 90% lean so that the meat will hold together while cooking.

*Percent lean is the weight of the lean meat in relation to the weight of the fat.

Pork: When shopping for pork, as well as lamb, look for the words “loin” or “leg”—pork loin, tenderloin, center loin, and ham.

Wild Game: Choose low-fat game meats like venison, quail, and dove.

Poultry: Choose white meat without skin, such as boneless skinless chicken breasts and turkey cutlets. Chicken parts should be skinless, or the skin should be removed before cooking.

Extra lean ground turkey breast without skin is the lowest fat choice. Ground turkey that contains dark meat and skin is not low in fat. Remember that lean ground turkey cooks faster than beef, because it is lower in fat.

Make sandwiches with lean turkey or chicken, lean roast beef, ham and low-fat luncheon meats. Avoid fatty luncheon meats such as bologna and salami.

Fish: Most fish has less fat than other meats, including poultry with skin. The fat in fish is mostly heart-healthy polyunsaturated fat. Light-colored or white fish have the least amount of fat, including perch, orange roughy, snapper, sole and other mild-flavored fish.

Oily fish like salmon, tuna, mackerel, sardines, herring and lake trout are firmer, darker in color, and contain more fats. Some fish (such as salmon, trout, and herring) are high in “omega-3 fatty acids,” a type of polyunsaturated fats. There is some limited evidence that suggests eating fish rich in omega-3 fatty acids may reduce your risk of cardiovascular disease. They appear to reduce blood clotting, lower blood pressure slightly, and lower blood triglycerides. In addition, they may be helpful if you have an inflammatory disease such as rheumatoid arthritis.

Processed Meats: Choose processed meats with less fat and saturated fat. Limit your intake of sausages, bacon, salami, bologna and other cold cuts.

Check the Nutrition Facts labels on packaged foods, including the sodium and fat content. Sodium is added to these processed meats: ham, sausage, frankfurters, luncheon and deli meats. Sodium is also added to some fresh chicken, turkey and pork in a salt-containing, flavor-enhancing solution. Watch for statements like “self-basting” or “contains up to ___% of ___,” which means a sodium solution was added.

Use Low-Fat Food Preparation: Cook lean cuts of meat using moist heat, because they are generally the tougher cuts of meat. Brown raw meat in a small amount of fat. Add water to the meat. Cover with a lid and cook at a low temperature for 1 to 2 hours or until tender. If the water cooks off, add more water during cooking time.

Tougher cuts of meat also can be tenderized by pounding or marinating them before cooking. Choose leaner grades of meat such as “select” or “good,” followed by “choice” then “prime.” “Prime” grade has more marbled fat that cannot be trimmed away from the lean, and it is more expensive than the other grades.

Follow these low-fat cooking tips for meat:

- Before cooking, trim away any visible fat from meats and remove skin from poultry.
- Broil, grill, roast, poach, or boil poultry, meat, and fish instead of frying or sautéing.
- Cook without adding fats like margarine, butter or oil.
- Drain off fat that appears during cooking.
- To keep the fat and calories lower, eat white meat poultry, and do not Southern fry it!
- Try mixing half extra-lean ground turkey and half extra-lean ground beef until your family gets adjusted to the taste of 100% ground turkey.
- Add a little tomato paste to ground turkey meat loaf to give it the familiar red color.
- To enhance the texture of cooked ground turkey, place it in a food processor.
- Cook dry beans and peas with stock rather than with additional fats such as fat back, ham hock, or bacon.
- Use sauces and gravies that are low in fat.
- Chill soups and stews and remove the layer of solid fat from the top.
- Reduce the fat content of ground meat by rinsing after cooking to remove excess grease or fat.

MERCURY IN FISH

Fish and shellfish are an important part of a healthy diet. They contain omega-3 fatty acids, high-quality protein and other essential nutrients, and they are low in saturated fat. However, nearly all fish and shellfish also contain traces of mercury.

For most people, the risk from mercury by eating fish and shellfish is not a health concern. Yet, some fish and shellfish contain higher levels of mercury that may harm an unborn baby or young child's developing nervous system. The risks from mercury in fish and shellfish depend on the mercury levels in them and the amount eaten.

The Food and Drug Administration (FDA) recommends varying the types of fish you eat. Both the FDA and the Environmental Protection Agency (EPA) advise women who may become pregnant, pregnant women, nursing mothers, and young children to eat fish and shellfish that are lower in mercury and to avoid some types of fish.

- It is safe to eat up to 12 ounces (two average meals) of a variety of fish and shellfish per week (smaller portions for young children). Five of the most commonly eaten fish that are low in mercury are shrimp, canned light tuna, salmon, pollock, and catfish.
- Choose canned light tuna, because it has less mercury than albacore (“white”) tuna and tuna steaks. Eat 6 ounces or less (one average meal) of albacore tuna and tuna steaks per week.
- Avoid large fish such as shark, swordfish, king mackerel, and tilefish, because they contain high levels of mercury.
- Freshwater fish caught by family and friends should be limited to 6 ounces per week for an adult and about two ounces for a young child. Do not eat any other fish that week.

The health benefits of getting healthy omega-3 fats by eating fatty fish far outweigh any potential lifetime risks for most people. For additional information on mercury in fish and shellfish, check FDA's Center for Food Safety and Applied Nutrition website for updates:

<http://www.cfsan.fda.gov/~lrd/pestadd.html#mercury>

For information about special advisories on mercury and other contaminants found in fish caught from local waters, contact the South Carolina Department of Health and Environmental Control (S.C. DHEC) at: 1-888-849-7241 (toll free) or

<http://www.scdhec.gov/water/fish/advisories.htm>

DHEC's information can help you decide where to fish, which fish to keep, and how much fish to eat from SC's lakes, rivers, streams and coastal areas.

EGGS

Healthy Americans can enjoy eggs by using these guidelines:

- Use egg whites and egg substitutes frequently, because they are cholesterol-free and contain little or no fat. Use egg yolks and whole eggs in moderation.
- In cooking, replace a whole egg with two egg whites or one egg white and two teaspoons of oil (olive or canola).
- Eat “reduced cholesterol” scrambled eggs by taking out half the yolks.

VEGETARIAN CHOICES

Getting adequate protein is not a concern for most vegetarians, as long as their plant-based diet contains a variety of many different foods from the meat and beans group. Protein is found in almost all foods of plant origin, except fruit. These sources include beans, peas, nuts, nut butters, seeds, soy products (tofu, tempeh and veggie burgers), as well as eggs (for ovo-vegetarians).

Vegetarians who eat eggs, milk, cheese, yogurt and soy are getting complete protein foods, which contain all nine essential amino acids that the body can not make. When consuming beans, peas, nuts and seeds, they are getting nearly complete protein foods. On the other hand, grain products and many vegetables are incomplete proteins and should be eaten along with another protein source like beans, milk or soy.

PROTEIN ON A BUDGET

Keep meat portions small. To stretch the amount of meat, poultry, or fish, combine them with other ingredients in casseroles.

Eat less expensive sources of protein more often. This includes dry beans and peas, peanut butter and eggs. Eat dry beans or peas two to three times a week, because they are a very inexpensive protein source, an excellent source of dietary fiber, easy to store and prepare. Remember that dairy products provide protein, also.

DISCRETIONARY CALORIES

Everyone has a total calorie “budget” divided into “essentials” and “extras.” Discretionary calories are the “extras” that can be used on luxuries like extra food from any food group, solid fats, sugars, or alcohols. Eating the fat in products like a well-marbled steak, regular ground beef (75% to 80% lean) or chicken with skin counts as “extra.” Food preparation methods that add solid fat in cooking, like frying chicken in shortening or frying eggs in butter or stick margarine, also count as part of your discretionary calorie allowance. Many people use their entire allowance on foods from the basic food groups that are prepared with extra fat or sugar.

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This information has been reviewed and adapted for use in South Carolina by J. G. Hunter, HGIC Information Specialist, and K. L. Cason, Professor, State EFNEP Coordinator, Clemson University.

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