

# Nutrition and Your Health

## Dietary Guidelines for Americans



**Eat a Variety of Foods** page 4



**Maintain Ideal Weight** page 7



**Avoid Too Much Fat, Saturated Fat, and Cholesterol** page 11



**Eat Foods with Adequate Starch and Fiber** page 13



**Avoid Too Much Sugar** page 15



**Avoid Too Much Sodium** page 17



**If You Drink Alcohol, Do So in Moderation** page 19

# Nutrition and Your Health

## Dietary Guidelines for Americans

What should you eat to stay healthy?

Hardly a day goes by without someone trying to answer that question. Newspapers, magazines, books, radio, and television give us a lot of advice about what foods we should or should not eat.

Unfortunately, much of this advice is confusing.

Some of this confusion exists because we don't know enough about nutrition to identify an "ideal diet" for each individual. People differ—and their food needs vary depending on age, sex, body size, physical activity, and other conditions such as pregnancy or illness.

In those chronic conditions where diet may be important—heart attacks, high blood pressure, strokes, dental caries, diabetes, and some forms of cancer—the roles of specific nutrients have not been defined.

Research does seek to find more precise nutritional requirements and to show better the connections between diet and certain chronic diseases.

But today, what advice should you follow in choosing and preparing the best foods for you and your family?

The guidelines below are suggested for most Americans. They do not apply to people who need special diets because of diseases or conditions that interfere with normal nutrition. These people may require special instruction from trained dietitians, in consultation with their own physicians.

These guidelines are intended for people who are already healthy. No guidelines can guarantee health or well-being. Health

depends on many things, including heredity, lifestyle, personality traits, mental health and attitudes, and environment, in addition to diet.

Food alone cannot make you healthy. But good eating habits based on moderation and variety can help keep you healthy and even improve your health.

### DIETARY GUIDELINES FOR AMERICANS

- Eat a variety of foods
- Maintain ideal weight
- Avoid too much fat, saturated fat, and cholesterol
- Eat foods with adequate starch and fiber
- Avoid too much sugar
- Avoid too much sodium
- If you drink alcohol, do so in moderation





## Eat a Variety of Foods

You need about 40 different nutrients to stay healthy. These include vitamins and minerals, as well as amino acids (from proteins), essential fatty acids (from vegetable oils and animal fats), and sources of energy (calories from carbohydrates, proteins, and fats). These nutrients are in the foods you normally eat.

Most foods contain more than one nutrient. Milk, for example, provides proteins, fats, sugars, riboflavin and other B-vitamins, vitamin A, calcium, and phosphorus — among other nutrients.

No single food item supplies all the essential nutrients in the amounts that you need. Milk, for instance, contains very little iron or vitamin C. You should, therefore, eat a variety of foods to assure an adequate diet.

The greater the variety, the less likely you are to develop either a deficiency or an excess of any single nutrient. Variety also reduces your likelihood of being exposed to excessive amounts of contaminants in any single food item.

One way to assure variety and, with it, a well-balanced diet is to select foods each day

from each of several major groups: for example, fruits and vegetables; cereals, breads, and grains; meats, poultry, eggs, and fish; dry peas and beans, such as soybeans, kidney beans, lima beans, and black-eyed peas, which are good vegetable sources of protein; and milk, cheese, and yogurt.

Fruits and vegetables are excellent sources of vitamins, especially vitamins C and A. Whole grain and enriched breads, cereals, and grain products provide B-vitamins, iron, and energy. Meats supply protein, fat, iron and other minerals, as well as several vitamins, including thiamine and vitamin B<sub>12</sub>. Dairy products are major sources of calcium and other nutrients.

### TO ASSURE YOURSELF AN ADEQUATE DIET Eat a variety of foods daily, including selections of

- Fruits
- Vegetables
- Whole grain and enriched breads, cereals, and grain products
- Milk, cheese, and yogurt
- Meats, poultry, fish, eggs
- Legumes (dry peas and beans)

There are no known advantages to consuming excess amounts of any nutrient. You will rarely need to take vitamin or mineral supplements if you eat a wide variety of foods. There are a few important exceptions to this general statement:

- *Women in their childbearing years* may need to take iron supplements to replace the iron they lose with menstrual bleeding. Women who are no longer menstruating should not take iron supplements routinely.
- *Women who are pregnant or who are breastfeeding* need more of many nutrients, especially iron, folic acid, vitamin A, calcium, and sources of energy (calories from carbohydrates, proteins, and fats). Detailed advice should come from their physicians or from dietitians.

- *Elderly or very inactive people* may eat relatively little food. Thus, they should pay special attention to avoiding foods that are high in calories but low in other essential nutrients — for example, fat, oils, alcohol, and sugars.

Infants also have special nutritional needs. Healthy full-term infants should be breastfed unless there are special problems. The nutrients in human breast milk tend to be digested and absorbed more easily than those in cow's milk. In addition, breast milk may serve to transfer immunity to some diseases from the mother to the infant.

Normally, most babies do not need solid foods until they are 3 to 6 months old. At that time, other foods can be introduced gradually. Prolonged breast or bottlefeeding — without solid foods or supplemental iron — can result in iron deficiency.

You should not add salt or sugar to the baby's foods. Infants do not need these "encouragements" — if they are really hungry. The foods themselves contain enough salt and sugar; extra is not necessary.

#### **TO ASSURE YOUR BABY AN ADEQUATE DIET**

- Breastfeed unless there are special problems
- Delay other foods until baby is 3 to 6 months old
- Do not add salt or sugar to baby's food



## **Maintain Ideal Weight**

If you are too fat, your chances of developing some chronic disorders are increased. Obesity is associated with high blood pressure, increased levels of blood fats (triglycerides) and cholesterol, and the most common type of diabetes. All of these, in turn, are associated with increased risks of heart attacks and strokes. Thus, you should try to maintain "ideal" weight.

But, how do you determine what the ideal weight is for you?

There is no absolute answer. The table on the following page shows "acceptable" ranges for most adults. If you have been obese since childhood, you may find it difficult to reach or to maintain your weight within the acceptable range. For most people, their weight should not be more than it was when they were young adults (20 or 25 years old).

It is not well understood why some people can eat much more than others and still maintain normal weight. However, one thing is definite: to lose weight, you must take in fewer calories than you burn. This means that you must either select foods containing fewer calories or you must increase your activity — or both.



### Suggested Body Weights

#### Range of Acceptable Weight

Height (feet-inches)	Men (Pounds)	Women (Pounds)
4'10"		92-119
4'11"		94-122
5'0"		96-125
5'1"		99-128
5'2"	112-141	102-131
5'3"	115-144	105-134
5'4"	118-148	108-138
5'5"	121-152	111-142
5'6"	124-156	114-146
5'7"	128-161	118-150
5'8"	132-166	122-154
5'9"	136-170	126-158
5'10"	140-174	130-163
5'11"	144-179	134-168
6'0"	148-184	138-173
6'1"	152-189	
6'2"	156-194	
6'3"	160-199	
6'4"	164-204	

NOTE: Height without shoes; weight without clothes.

SOURCE: HEW conference on obesity, 1973.

### TO LOSE WEIGHT

- Increase physical activity
- Eat less fat and fatty foods
- Eat less sugar and sweets
- Avoid too much alcohol

Gradual increase of everyday physical activities like walking or climbing stairs can be very helpful. The chart below gives the calories used per hour in different activities.

### Approximate Energy Expenditure by a 150 Pound Person in Various Activities

Activity	Calories per hour
Lying down or sleeping	80
Sitting	100
Driving an automobile	120
Standing	140
Domestic work	180
Walking, 2-1/2 mph	210
Bicycling, 5-1/2 mph	210
Gardening	220
Golf; lawn mowing, power mower	250
Bowling	270
Walking, 3-3/4 mph	300
Swimming, 1/4 mph	300
Square dancing, volleyball; roller skating	350
Wood chopping or sawing	400
Tennis	420
Skiing, 10 mph	600
Squash and handball	600
Bicycling, 13 mph	660
Running, 10 mph	900

SOURCE: Based on material prepared by Robert E. Johnson, M.D., Ph.D., and colleagues, University of Illinois.

### TO IMPROVE EATING HABITS

- Eat slowly
- Prepare smaller portions
- Avoid "seconds"

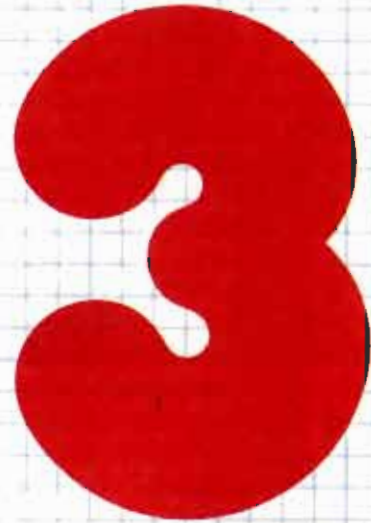
If you need to lose weight, do so gradually. Steady loss of 1 to 2 pounds a week — until you reach your goal — is relatively safe and more likely to be maintained. Long-term success depends upon acquiring new and better habits of eating and exercise. That is perhaps why "crash" diets usually fail in the long run.

Do not try to lose weight too rapidly. Avoid crash diets that are severely restricted in the variety of foods they allow. Diets containing fewer than 800 calories may be hazardous. Some people have developed kidney stones, disturbing psychological changes, and other complications while following such diets. A few people have died suddenly and without warning.

A pound of body fat contains 3500 calories. To lose 1 pound of fat, you will need to burn 3500 calories more than you consume. If you burn 500 calories more a day than you consume, you will lose 1 pound of fat a week. Thus, if you normally burn 1700 calories a day, you can theoretically expect to lose a pound of fat each week if you adhere to a 1200-calorie-per-day diet.

Do not attempt to reduce your weight below the acceptable range. Severe weight loss may be associated with nutrient deficiencies, menstrual irregularities, infertility, hair loss, skin changes, cold intolerance, severe constipation, psychiatric disturbances, and other complications.

If you lose weight suddenly or for unknown reasons, see a physician. Unexplained weight loss may be an early clue to an unsuspected underlying disorder.



## **Avoid Too Much Fat, Saturated Fat, and Cholesterol**

If you have a high blood cholesterol level, you have a greater chance of having a heart attack. Other factors can also increase your risk of heart attack — high blood pressure and cigarette smoking, for example — but high blood cholesterol is clearly a major dietary risk indicator.

Populations like ours with diets high in saturated fats and cholesterol tend to have high blood cholesterol levels. Individuals within these populations usually have greater risks of having heart attacks than people eating low-fat, low-cholesterol diets.

Eating extra saturated fat and cholesterol will increase blood cholesterol levels in most people. However, there are wide variations among people — related to heredity and the way each person's body uses cholesterol.

Some people can consume diets high in saturated fats and cholesterol and still keep normal blood cholesterol levels. Other people, unfortunately, have high blood cholesterol levels even if they eat low-fat, low-cholesterol diets.

*There is controversy about what*



recommendations are appropriate for healthy Americans. But for the U.S. population as a whole, reduction in our current intake of total fat, saturated fat, and cholesterol is sensible. This suggestion is especially appropriate for people who have high blood pressure or who smoke.

The recommendations are not meant to prohibit the use of any specific food item or to prevent you from eating a variety of foods. For example, eggs and organ meats (such as liver) contain cholesterol, but they also contain many essential vitamins and minerals, as well as protein. Such items can be eaten in moderation, as long as your overall cholesterol intake is not excessive. If you prefer whole milk to skim milk, you can reduce your intake of fats from foods other than milk.

#### **TO AVOID TOO MUCH FAT, SATURATED FAT, AND CHOLESTEROL**

- Choose lean meat, fish, poultry, dry beans and peas as your protein sources
- Moderate your use of eggs and organ meats (such as liver)
- Limit your intake of butter, cream, hydrogenated margarines, shortenings and coconut oil, and foods made from such products
- Trim excess fat off meats
- Broil, bake, or boil rather than fry
- Read labels carefully to determine both amount and types of fat contained in foods



## **Eat Foods with Adequate Starch and Fiber**

The major sources of energy in the average U.S. diet are carbohydrates and fats. (Proteins and alcohol also supply energy, but to a lesser extent.) If you limit your fat intake, you should increase your calories from carbohydrates to supply your body's energy needs.

In trying to reduce your weight to "ideal" levels, carbohydrates have an advantage over fats: carbohydrates contain less than half the number of calories per ounce than fats.

Complex carbohydrate foods are better than simple carbohydrates in this regard. Simple carbohydrates — such as sugars — provide calories but little else in the way of nutrients. Complex carbohydrate foods — such as beans, peas, nuts, seeds, fruits and vegetables, and whole grain breads, cereals, and products — contain many essential nutrients in addition to calories.

Increasing your consumption of certain complex carbohydrates can also help increase dietary fiber. The average American diet is relatively low in fiber.

Eating more foods high in fiber tends to reduce the symptoms of chronic constipation, diverticulosis, and some types of "irritable bowel." There is also concern that low fiber diets might increase the risk of developing cancer of the colon, but whether this is true is not yet known.

To make sure you get enough fiber in your diet, you should eat fruits and vegetables, whole grain breads and cereals. There is no reason to add fiber to foods that do not already contain it.

#### TO EAT MORE COMPLEX CARBOHYDRATES DAILY

- Substitute starches for fats and sugars
- Select foods which are good sources of fiber and starch, such as whole grain breads and cereals, fruits and vegetables, beans, peas, and nuts



## Avoid Too Much Sugar

The major health hazard from eating too much sugar is tooth decay (dental caries). The risk of caries is not simply a matter of how much sugar you eat. The risk increases the more frequently you eat sugar and sweets, especially if you eat between meals, and if you eat foods that stick to the teeth. For example, frequent snacks of sticky candy, or dates, or daylong use of soft drinks may be more harmful than adding sugar to your morning cup of coffee — at least as far as your teeth are concerned.

Obviously, there is more to healthy teeth than avoiding sugars. Careful dental hygiene and exposure to adequate amounts of fluoride in the water are especially important.

Contrary to widespread opinion, too much sugar in your diet does not seem to cause diabetes. The most common type of diabetes is seen in obese adults, and avoiding sugar, without correcting the overweight, will not solve the problem. There is also no convincing evidence that sugar causes heart attacks or blood vessel diseases.

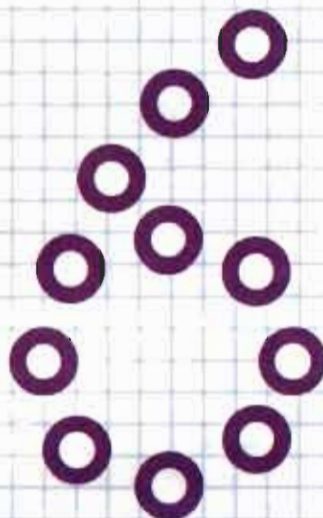
Estimates indicate that Americans use on



the average more than 130 pounds of sugars and sweeteners a year. This means the risk of tooth decay is increased not only by the sugar in the sugar bowl but by the sugars and syrups in jams, jellies, candies, cookies, soft drinks, cakes, and pies, as well as sugars found in products such as breakfast cereals, catsup, flavored milks, and ice cream. Frequently, the ingredient label will provide a clue to the amount of sugars in a product.

#### **TO AVOID EXCESSIVE SUGARS**

- **Use less of all sugars, including white sugar, brown sugar, raw sugar, honey, and syrups**
- **Eat less of foods containing these sugars, such as candy, soft drinks, ice cream, cakes, cookies**
- **Select fresh fruits or fruits canned without sugar or light syrup rather than heavy syrup**
- **Read food labels for clues on sugar content — if the names sucrose, glucose, maltose, dextrose, lactose, fructose, or syrups appear first, then there is a large amount of sugar**
- **Remember, how often you eat sugar is as important as how much sugar you eat**



## **Avoid Too Much Sodium**

Table salt contains sodium and chloride — both are essential elements.

Sodium is also present in many beverages and foods that we eat, especially in certain processed foods, condiments, sauces, pickled foods, salty snacks, and sandwich meats. Baking soda, baking powder, monosodium glutamate (MSG), soft drinks, and even many medications (many antacids, for instance) contain sodium.

It is not surprising that adults in the United States take in much more sodium than they need.

The major hazard of excessive sodium is for persons who have high blood pressure. Not everyone is equally susceptible. In the United States, approximately 17 percent of adults have high blood pressure. Sodium intake is but one of the factors known to affect blood pressure. Obesity, in particular, seems to play a major role.

In populations with low-sodium intakes, high blood pressure is rare. In contrast, in populations with high-sodium intakes, high blood pressure is common. If people with high blood pressure severely restrict their sodium intakes, their blood pressures



will usually fall — although not always to normal levels.

At present, there is no good way to predict who will develop high blood pressure, though certain groups, such as blacks, have a higher incidence. Low-sodium diets might help some of these people avoid high blood pressure if they could be identified before they develop the condition.

Since most Americans eat more sodium than is needed, consider reducing your sodium intake. Use less table salt. Eat sparingly those foods to which large amounts of sodium have been added. Remember that up to half of sodium intake may be "hidden," either as part of the naturally occurring food or, more often, as part of a preservative or flavoring agent that has been added.

#### **TO AVOID TOO MUCH SODIUM**

- Learn to enjoy the unsalted flavors of foods
- Cook with only small amounts of added salt
- Add little or no salt to food at the table
- Limit your intake of salty foods, such as potato chips, pretzels, salted nuts and popcorn, condiments (soy sauce, steak sauce, garlic salt), cheese, pickled foods, cured meats
- Read food labels carefully to determine the amounts of sodium in processed foods and snack items



## **If You Drink Alcohol, Do So in Moderation**

Alcoholic beverages tend to be high in calories and low in other nutrients. Even moderate drinkers may need to drink less if they wish to achieve ideal weight.

On the other hand, heavy drinkers may lose their appetites for foods containing essential nutrients. Vitamin and mineral deficiencies occur commonly in heavy drinkers — in part, because of poor intake, but also because alcohol alters the absorption and use of some essential nutrients.

Sustained or excessive alcohol consumption by pregnant women has caused birth defects. Pregnant women should limit alcohol intake to 2 ounces or less on any single day.

Heavy drinking may also cause a variety of serious conditions, such as cirrhosis of the liver and some neurological disorders. Cancer of the throat and neck is much more common in people who drink and smoke than in people who don't.

One or two drinks daily appear to cause no harm in adults. If you drink you should do so in moderation.

- Remember, if you drink alcohol, do so in moderation



**For further reading on diet and its relationship to good health, send for:**

**FOOD** — A publication on food and nutrition by the U. S. Department of Agriculture. Home and Garden Bulletin No. 228. Science and Education Administration. Stock No.001-000-03881-8.

**HEALTHY PEOPLE** — The Surgeon General's Report on Health Promotion and Disease Prevention. Public Health Service, U. S. Department of Health, Education, and Welfare. Stock No. 017-001-00416-2.

The above publications are for sale from:

Superintendent of Documents  
U.S. Government Printing Office  
Washington, D.C. 20402  
(Per 100)

**For assistance with your food and nutrition questions, contact the dietitian, home economist, or nutritionist in the following groups:**

Public Health Department  
County Extension office  
State or local medical society  
Hospital outpatient clinic  
Local Dietetic Association office  
Local Heart Association office  
Local Diabetes Association office  
Local Health Center or Clinic

*NOTE: These recommendations are intended only for populations with food habits similar to people in the United States.*