2-1980

CC294 Revised 1980 How Much Fat and How Much Calories are You Eating?

How Much Fat and How Many Calories are You Eating?

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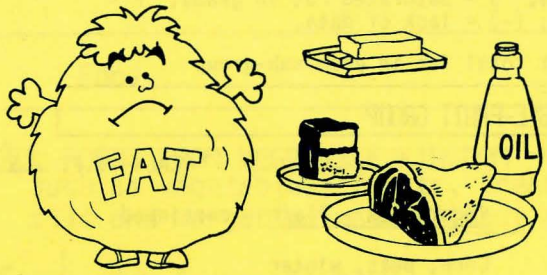
CC 294



Fat

Provides energy
Pads vital organs
Carries fat soluble vitamins
Provides linoleic acid, an essential fatty acid needed from food
Too much fat may contribute to overweight and in some individuals, atherosclerosis (a thickening on the inside of blood vessels)

How much fat on the average do you need each day? Exact allowances have not been made. A reasonable level for total fat in the diet for the healthy person is about 30 to 35 percent of the calories or less (except for infants since human milk provides over 50% of the calories from fat).

Directions for Figuring the Fat and Calories in One Day's Menu.

1. Put a heading on a lined sheet of paper as follows:

   Food and Amount CAL T.F. S P

2. Using the food tables in the center fold, plan one day's menu including foods and amounts for one person. (Or write down what you ate in the last 24 hours making reasonable substitutions if you can't find the exact food.) Copy the calories (CAL), total fat (T.F.), saturated fat (S) and the polyunsaturated fat (P). Total the figures.

3. Analyze the results. The total fat should be no more than 30 to 35 percent of the calories. The saturated fatty acids should be no more than 10% of the calories since they tend to raise the cholesterol level in the blood. The following table can help you figure the maximum grams of total fat and saturated fat per day in relation to calories.

Calories	Total Fat (35% of Cal) grams	Saturated Fatty Acids (10% of Cal) grams	Calories	Total Fat (35% of Cal) grams	Saturated Fatty Acids (10% of Cal) grams
100	4	1	2000	78	22
1000	39	11	2200	86	24
1200	47	13	2400	93	27
1400	54	16	2600	101	29
1600	62	18	2800	109	31
1800	70	20	3000	117	33

   (To figure 35% of the calories in grams of fat, multiply the calories by .35 and divide the product by 9 (the number of calories in 1 gram of fat.) For example: 2000 calories x .35 = 700 ÷ 9 = 78 grams. To figure 10% of calories in grams of fat use .10 instead of the .35 above. Example: 2000 calories x .10 = 200 ÷ 9 = 22 grams.)

   The American Heart Association recommends about equal amounts of saturated and polyunsaturated fatty acids. The polyunsaturated acids are needed to supply linoleic acid which must be obtained from food. Include as a minimum 7 to 10 grams of polyunsaturated fatty acids.

   The calories should be at a level to attain or maintain desirable weight.

   Notes:
   1. The saturated (S) plus the polyunsaturated (P) fatty acids will be less than the total fat since monounsaturated fats, some polyunsaturated fats, and other fats are not included in the table.

   2. Fat and calories tell only part of the nutritional picture. Many other factors need to be considered in planning nutritious meals.

4. Check the cholesterol content of your menu by using the table on page 5. For people with a predisposition to heart disease 300 mg or less per day is suggested.

5. Plan another menu, or revise the first one, to be within the fat recommendations above.

Extension work in "Agriculture, Home Economics and subjects relating thereto," The Cooperative Extension Service, Institute of Agriculture and Natural Resources, University of Nebraska-Lincoln, Cooperating with the Counties and the U.S. Department of Agriculture
Leo E. Lucas, Director

2/80

CALORIES AND FAT IN SELECTED FOODS

Key: CAL = Calories; T.F. = Total Fat in grams; S = Saturated Fat in grams; P = Polyunsaturated Fat in grams; tr = trace; (-) = lack of data.

Arranged from least to most total fat in each sub-group

BASIC VEGETABLE-FRUIT GROUP

	CAL	T.F.	S	P
Fruits - Plain				
Fresh, froz, can, fruit, unsw, 1 sm serv	40	tr	-	-
Fresh fruit by piece 1 med, or 1/2 lg	80	tr	-	-
Avocado 1/4 lg (54g)	93	9	1	1
Fruits - Sugar Added				
Fruit in heavy sirup 1/2 c (118 ml)	80	tr	-	-
Vegetables - Plain				
Leafy greens, cabbage, celery, cucumber, peppers, zucchini and other low starch vegetables. Varies per serving	15	tr	-	-
Carrots, onions, tomato and other med starch veg. Varies per serving	25	tr	-	-
Vegetables - Plain - continued				
Corn, peas, winter squash, white potatoes and other high starch veg. 1/2 c (118 ml)	70	1	-	-
Potato, baked or boiled. 1 (137g)	105	tr	-	-
Sweet potatoes 1 med (114g)	160	1	-	-
Olives, green 4 med (16g)	15	2	tr	tr
Vegetables - Fat Added				
Potato salad 1/2 c (118 ml)	125	4	1	1
Mashed potatoes with butter 1/2 c (118 ml)	100	5	3	tr
Potato chips 10	115	8	2	4
French fried potatoes 20 (100g)	270	14	3	7

BASIC BREAD-CEREAL GROUP

	CAL	T.F.	S	P
Breads and cereals - Plain				
Bread, any plain kind (avg) 1 sl	70	1	tr	tr
Dry cereal such as puffed wheat or puffed rice (unsw) 1 c (237ml)	60	tr	-	-
Cereal, cooked (avg) 1/2 c (118 ml)	70	1	-	-
Saltine crackers 4	50	1	tr	tr
Rolls, Frankfurter or Hamburger 1	120	2	1	1
Cloverleaf roll 1 2 1/2" (6cm) diam	120	3	1	1
Popcorn, popped, no added fat 3 c (711ml)	75	3	tr	1
Waffle 7" diam	210	7	2	1
Bread and cereals - Fat and Sugar Added				
Dry cereal, added sugar 1 c (237ml)	100	1	-	-
Muffin - plain 1 3" (8cm) diam	120	4	1	1
Pancakes 2 cakes	120	4	1	2
Biscuit, baking powder 1 (28g)	105	5	1	1
Popcorn, popped with corn oil 3 c (711ml)	120	6	1	4
Popcorn, popped with coconut oil 3 c (711ml)	120	6	5	1
Waffle 7" (18 cm) diam	210	7	2	1

	CAL	T.F.	S	P
Bread and cereals - Fat and Sugar Added - continued				
Cookies				
Brownies 1 sm (20g)	95	6	2	1
Oatmeal cookies 4	235	8	2	2
Choc sandwich 4	200	9	2	2
Choc chip 4	200	9	3	2
Cakes				
Angelfood 1/12 cake	135	tr	-	-
Cup cake with choc icing 1 med	130	2	5	2
Donut, cake type 1 (25g)	100	5	1	1
Choc layer 1 wedge	235	8	3	1
Plain sheet cake 1 piece	315	12	3	3
Danish pastry 4" (10cm) diam	275	15	5	3
Pies (9", 23 cm, diam)				
Custard 1/7th	285	14	5	3
Blueberry 1/7th	325	15	4	4
Apple 1/7th	345	15	4	4
Pumpkin 1/7th	275	15	5	2

BASIC MILK-CHEESE GROUP

	CAL	T.F.	S	P
Milk - Plain 1 c (237 ml)				
Skim	90	1	tr	tr
Buttermilk	100	2	1	tr
Low fat (1%)	105	2	2	tr
Yogurt, plain, low fat	145	4	2	tr
Low fat (2%)	125	5	3	tr
Whole	150	8	5	tr
Evaporated whole	340	19	12	tr
Cheese - Plain				
Uncreamed cottage 1/2 c (118 ml)	65	1	tr	tr
Creamed cottage 1/2 c (118 ml)	120	5	3	1
Mozzarella, part skim 1 oz (28g)	80	5	3	tr
Swiss 1 oz (28g)	105	8	5	tr
Cheddar, American 1 oz (28g)	115	9	6	tr
Cream 1 oz (28g)	100	10	6	tr

	CAL	T.F.	S	P
Milk-Cheese - Fat and/or Sugar Added				
Yogurt, fruit flav 1/2 c (118 ml)	115	2	1	tr
Soft serve (2.6% fat) 1/2 c (118 ml)	115	3	2	tr
Ice milk 1/2 c (118 ml)	95	3	3	tr
Choc pudding 1/2 c (118 ml)	160	4	2	tr
Vanilla pudding 1/2 c (118 ml)	145	5	3	tr
Ice cream (11% fat) 1/2 c (118 ml)	135	7	4	tr
Choc or van shake 11 fl oz (325 ml)	355	8	5	tr

BASIC MEAT, POULTRY, FISH AND BEANS GROUP

	CAL	T.F.	S	P
Meat - Plain				
Beef 3 oz (85g)				
Beef round, roasted	134	3	1	tr
Beef round, braised	130	5	2	tr
Beef heart, lean braised	160	5	2	1
Sirloin steak, lean	175	6	3	tr
Liver, beef, fried	195	9	3	4
Corned beef, canned	185	10	5	tr
Hamburger, 10% fat	185	10	4	tr
Hamburger, 21% fat	235	17	7	tr
Veal, sirloin, lean 3 oz (85g)	175	5	2	tr
Lamb, cooked, lean 2 oz (57g)	120	6	3	tr
Pork				
Sirloin, lean 3 oz (85g)	170	6	2	1
Ham, cured 2 oz (57g)	130	10	3	1
Bacon 3 sl (23g)	125	12	4	1
Sausage, brown & serve 2 links (34g)	140	12	5	1
Frankfurter 2 oz (57g)	170	15	6	1
Poultry - Plain				
Chicken				
Half broiled chicken, skin and flesh wt 6.2 oz (176g)	240	7	2	1

	CAL	T.F.	S	P
Poultry - Plain - continued				
Turkey				
White meat (no skin) sl 3 oz (85g)	150	3	1	1
Dark meat (no skin) sl 3 oz (85g)	175	7	2	2
Fish - Plain, Raw 3 1/2 oz (100g)				
Clams, cod, water-pack tuna	90	1	-	-
Scallops, Shrimp	90	1	-	-
Greenland halibut, whitefish, salmon	160	9	3	3
Rainbow trout, mackerel	200	13	4	4
Egg - Plain, Raw, 1g				
Egg white 1 (33g)	15	tr	-	-
Egg yolk 1 (17g)	65	6	2	1
Whole egg, without shell 1 (50g)	80	6	2	1
Beans 1 c (237 ml)				
Cooked, common varities such as Great Northern & Pea	215	1	-	-
Canned pork & beans, tomato sauce	310	7	2	1
Nuts				
Shredded coconut 1/4 c (59ml)	65	7	6	tr
Peanut butter 2 tbsp (30 ml)	190	16	3	5
Sunflower seeds 1/4 c (59 ml)	205	17	2	11

	CAL	T.F.	S	P
Nuts - continued				
Peanuts 1/4 c (59 ml)	210	18	3	5
Walnuts, chopped 1/4 c (59 ml)	195	19	2	11

	CAL	T.F.	S	P
Meat, Poultry, Fish and Beans - Fat added				
Breast, fried, boneless 2.8 oz (79g)	160	5	1	1
Haddock, breaded fried 3 oz (85g)	140	5	1	1
Tuna canned in oil 3 oz (85g)	170	7	2	1
Drumsticks, fried boneless 2.6 oz (74g)	160	8	2	2
Shrimp, fried 3 oz (85g)	190	9	2	2

MIXED BASIC FOODS

	CAL	T.F.	S	P
Pizza 1 piece	145	4	2	1
Beef and veg stew 1 c (237 ml)	220	11	5	tr
Chili con carne with beans 1 c (237 ml)	340	16	8	tr

	CAL	T.F.	S	P
Canned soups (ready to eat) 1 c (237 ml)				
Beef noodle	65	3	1	1
Split pea	145	3	1	tr
Cream of mushroom	215	14	5	5

CAUTION GROUP - FATS, SUGARS AND ALCOHOL
SEPARATE OR WHEN ADDED TO BASIC FOODS

	CAL	T.F.	S	P
Vegetable fats 1 tbsp (15 ml)				
Whipped topping	15	1	1	tr
Margarine, soft liq. oil first ingred	100	12	2	4
Margarine, reg	100	12	2	3
Veg shortening	120	14	2	5
Vegetable oils 1 tbsp (15 ml)				
Safflower	120	14	1	10
Corn	120	14	2	8
Soybean	120	14	2	8
Cottonseed	120	14	4	7
Peanut	120	14	2	5
Olive	120	14	2	2
Palm	120	14	8	2
Coconut	120	14	12	tr
Salad Dressings 1 tbsp (15 ml)				
French, low cal	15	1	tr	tr
French, reg	65	6	1	3
Mayonnaise type	65	6	1	3
Italian	85	9	2	5
Mayonnaise	100	11	2	6
Animal Fats 1 tbsp (15 ml)				
Half & half cream	20	2	1	tr
Sour cream	25	3	2	1
Heavy cream	80	6	4	tr
Butter	100	12	7	tr

	CAL	T.F.	S	P
Animal Fats - continued 1 tbsp (15 ml)				
Chicken	115	13	4	2
Lard	115	13	5	1
Beef tallow	115	13	6	1
Sugars and Jams 1 tbsp (15 ml)				
White	45	0	0	0
Brown	50	0	0	0
Molasses	50	-	-	-
Jams and preserves	55	-	-	-
Pancake sirup	60	0	0	0
Honey	65	0	0	0
Soft Drinks 12 fl oz (355 ml)				
Gingerale	115	0	0	0
Cola type	145	0	0	0
Fruit flavored soft drink	170	0	0	0
Candy 1 oz (28g)				
Caramels	115	3	2	tr
Milk chocolate	145	9	6	tr
Choco covered peanuts	160	12	4	2
Alcoholic Beverages				
Table wine 3 1/2 fl oz (104 ml)	85	0	0	0
Dessert wine 3 1/2 fl oz (104 ml)	140	0	0	0
Gin, rum or vodka whiskey (86 proof) 1 1/2 fl oz (44ml)	105	0	0	0
Beer 12 fl oz (355 ml)	150	0	0	0

CHOLESTEROL CONTENT OF SELECTED FOODS[1]
From Lowest to Highest Cholesterol

Food	Amount	Cholesterol milligrams
ALL FOODS FROM VEGETABLE KINGDOM such as vegetables, fruits, breads, cereals, vegetable oils and margarine made without animal ingredients		0
FOODS FROM ANIMAL KINGDOM		
Egg white	1	0
Milk, skim, fluid or reconstituted dry	1 cup	5
Cottage cheese, uncreamed	1/2 cup	7
Lard	1 tablespoon	12
Cream, light table	1 fluid ounce	20
Cottage cheese, creamed	1/2 cup	24
Cream, half and half	1/4 cup	26
Ice cream, regular approximately 10% fat	1/2 cup	27
Cheese, cheddar	1 ounce	28
Milk, whole	1 cup	34
Butter	1 tablespoon	35
Oysters, salmon	3 ounces	40
Clams, halibut, tuna	3 ounces	55
Chicken, turkey, light meat	3 ounces	67
Beef, pork, lobster, chicken, turkey, dark meat	3 ounces	75
Lamb, veal, crab	3 ounces	85
Shrimp	3 ounces	130
Heart, beef	3 ounces	230
Egg	1 yolk or 1 egg	250
Liver, beef, calf, hog, lamb	3 ounces	370
Kidney	3 ounces	680
Brains	3 ounces	more than 1700

[1]Adapted from "Fats in Food and Diet" USDA Agricultural Informational Bulletin No. 361, 1976.

- Fats, proteins and carbohydrates (starches and sugars) are the three nutrients that provide energy to the body. The remaining nutrients - vitamins, minerals and water -- do not contribute calories. Dietary fiber contributes bulk but not calories.

- Fat has the most calories -- nine calories per gram. Protein and carbohydrate have four calories per gram each. Alcohol has seven calories per gram.

- Dietary fats are largely made up of fatty acids -- polyunsaturated, monounsaturated, and saturated.

- The major polyunsaturated fatty acid is called linoleic acid. Linoleic acid is not made in the body in large enough quantities and must be obtained in food. Linoleic acid is needed in the functioning of cells and various body processes.

- The major monounsaturated fatty acid is oleic acid.

- Saturated fatty acids tend to raise the cholesterol level in the blood while polyunsaturated fatty acids tend to lower and monounsaturated fatty acids tend to have no effect on the cholesterol level in the blood.

- Fats in foods usually contain all three types of fatty acids - polyunsaturated, monounsaturated, and saturated but one may be in larger amounts.

- Vegetable oils are usually less saturated than animal fats. Exceptions to this are coconut and palm oil which are highly saturated. Coconut and palm oil are often the "vegetable fat or oil" listed on labels of coffee whiteners and other packaged foods.

- How liquid or soft a fat is can help you to remember the degree of unsaturation. Fats which are liquid at room temperature tend to have more poly- and monounsaturated fats than saturated ones. Corn oil is high in polyunsaturates and olive oil is mostly monounsaturated. The harder the fat the more saturated it is. Thus, beef fat is more saturated than pork fat. Pork fat is more saturated than chicken fat.

- Cholesterol is needed by the body and manufactured by it. It is not necessary to obtain cholesterol from food except for infants.

- Margarine which has liquid vegetable oil as the first ingredient is higher in polyunsaturated fat than the ones that say "partially hardened fat" first.

- A tablespoon of fat has 100 to 120 calories. To reduce both fat and calories in food skim fat from gravies, cut fat from meat before cooking, use less fat in recipes.

- The type of fat can often be altered in recipes or recipes can be chosen to provide the type of fatty acids desired. For example, pie crust could be made with corn oil which is a good source of polyunsaturated fat rather than hydrogenated vegetable fat which has more monounsaturated and saturated fatty acids.

- Fat is low in nutrients in proportion to its calories. It is advisable, therefore, to limit fat in the diet so that more vegetables and fruits and other nutrient dense foods can be included.

- Limiting the fat intake helps to keep the total calories of the diet lower.

Reference: Nutritive Value of Foods, USDA, Home and Garden Bulletin No. 72, 1977.