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## Sodium, calcium, potassium & calories— role in hypertension

Jennifer Anderson<sup>1</sup>

### Quick Facts

Calories and body weight go hand in hand.  
Excess body fat leads to an increased risk of health problems.

Potassium has an important role in blood pressure treatment.

Low calcium intake may increase risk of hypertension.

Dietary recommendations suggest that people should avoid eating too much sodium. The suggested range is 1100 to 3300 mg per day.

Excessive sodium intake is linked with high blood pressure or hypertension in some people.

Table salt contains 40 percent sodium. One teaspoon salt contains approximately 2000 mg sodium. Remember to read labels.

An individual who is trying to control hypertension (high blood pressure) often is advised to decrease sodium, increase potassium levels and watch caloric intake. Maintaining reasonable weight is an important factor in controlling blood

pressure.

A new area of interest is in calcium and the relationship between calcium intake and high blood pressure. Individuals whose intakes of calcium have been low seem to be at an increased risk of developing hypertension. Everyone should insure that the Recommended Dietary Allowance (RDA) for calcium is met each day. For adults this is 800 mg per day.

For sodium-sensitive individuals, reducing the sodium content of foods would be a prudent approach to reducing the risk of developing hypertension. The recommendation for daily sodium intake is 1100 to 3300 mg a day. Most people consume far greater amounts.

Any individual who is being treated for hypertension and who is on diuretic or other medications, often loses body potassium. Incorporate potassium-rich foods in meals eaten each day.

Maintaining reasonable weight is important for everyone to minimize the risk of several major diseases. It is desirable to eat a variety of foods each day and to assure that the RDA is met for optimal health. Use the following table to assess calorie, calcium and potassium content of foods.

Learn to **read labels** to identify differences between brands of food. Sodium, calorie and potassium levels may differ. Be a wise shopper.

<sup>1</sup>Jennifer Anderson, Ph.D. R.D., Colorado State University Cooperative Extension foods and nutrition specialist and assistant professor; appreciation for assistance from Melissa Ellard and Kim Cranwell, former students; food science and human nutrition (revised 9/89)

### BEVERAGES

#### Fruit drinks:

Cranberry juice cocktail	1 cup	164	4	25	13
Lemonade, frozen	1 cup	110	60	0	0
Orange	1 cup	131	77	46	2

#### Fruit drinks, dehydrated, reconstituted:

Lemonade	1 cup	102	13	33	71
Orange	1 cup	115	12	49	61

#### Fruit juices, unsweetened:

Apple cider or juice	1 cup	117	5	250	15
Apricot nectar	1 cup	142	9	378	22
Grapefruit juice	1 cup	75	4	360	32
Orange juice	1 cup	120	5	498	25

	AMOUNT	FOOD ENERGY	SODIUM (Na)	POTASSIUM (K)	CALCIUM (Ca)
		Kcalories	mg	mg	mg

	Amount	K cals.	Na	K	Ca
Grape juice, bottled	1 cup	159	8	279	27
Pineapple juice	1 cup	138	5	372	38
Prune juice	1 cup	192	5	588	35
Cocoa mix, water added (Carnation)	1 cup	110	232	176	107
Coffee, freeze-dried (using 2 tsp.)	1 cup	6	2	166	6
<b>DAIRY PRODUCTS</b>					
Natural cheese:					
Brick	1 ounce	103	159	38	204
Cheddar	1 ounce	112	176	23	211
Colby	1 ounce	110	171	35	192
Cottage, 4½% milk fat	½ cup	120	457	260	108
Cream	1 ounce	99	84	34	23
Monterey	1 ounce	105	152	23	209
Mozzarella, part skim milk	1 ounce	72	132	24	183
Muenster	1 ounce	104	178	38	203
Swiss	1 ounce	95	388	61	219
Cheese food:					
American	1 ounce	93	337	79	163
Swiss	1 ounce	90	440	80	202
Cream, sour	1 tablespoon	26	6	17	14
Milk:					
Skim	1 cup	89	126	406	296
Whole	1 cup	149	120	370	290
Ice Cream:					
Vanilla	1 cup	290	112	193	208
Yogurt:					
Regular plain	1 cup	152	105	323	272
Lowfat plain	1 cup	123	159	350	294
Yogurt fruit flavored with nonfat milk solids	1 cup	231	133	442	345
<b>EGGS, FISH, MEAT, POULTRY AND RELATED PRODUCTS</b>					
Eggs, whole (boiled)	1	78	59	62	26
Fish:					
Cod, broiled	3 ounces	144	93	345	27
Flounder, baked with butter or margarine	3 ounces	171	201	498	21
Haddock, breaded, fried	3 ounces	141	150	297	33
Halibut, broiled with butter of margarine	3 ounces	144	114	447	15
Ocean perch, fried	3 ounces	192	128	243	27
Salmon, broiled	3 ounces	156	99	378	127
Salmon, pink, canned, salt added	3 ounces	102	329	262	196
Sardines, canned	3 ounces	174	552	501	372
Trout, brook, raw	3 ounces	86	67	319	12
Tuna, canned in water	3 ounces	108	288	237	14
Shellfish:					
Clams, raw, hard	3 ounces	68	174	264	58
Clams, raw, soft	3 ounces	70	30	200	69
Crab, canned	3 ounces	86	425	94	38
Lobster, boiled (Northern)	3 ounces	80	212	153	55
Oysters, raw (Pacific)	3 ounces	77	113	121	72
Scallops, steamed	3 ounces	95	225	405	98
Shrimp, fried	3 ounces	192	159	195	60
Shrimp, canned	3 ounces	324	1,955	122	9
Meat:					
Beef, lean hamburger, cooked	1 patty	140	55	480	14
Beef, corned, canned	3 ounces	183	893	60	7
Pork:					
Bacon, cooked	2 strips	96	274	34	2
Canadian, cooked	1 slice	65	394	371	5.3
Ham	3 ounces	298	1,114	284	4
Veal, loin, cooked, lean	3 ounces	199	69	55	9
Poultry:					
Chicken, roasted, breast without skin	½ breast	142	63	220	13
Chicken, roasted, drumstick without skin, 3½ oz.	1 drumstick	76	42	108	5
Turkey, roasted, breast with skin	¾ ounces	189	67	289	21
Turkey, roasted, leg with skin	¾ ounces	206	80	281	35
<b>FRUITS</b>					
Apples, medium (2½ inches in diameter)	1 apple	87	2	165	10
Applesauce, canned, unsweetened	1 cup	82	5	156	8
Apricots	3 apricots	51	1	281	17
Avocado, raw, peeled	1	167	22	604	10
Banana, raw, medium	1	127	2	550	12
Strawberries, raw	1 cup	55	2	244	31
Cherries, raw, sweet	1 cup	82	150	223	26

	Amount	K cal.	Na	K	Ca
Grapefruit, pink, raw, medium	½	40	1	135	16
Oranges, raw	1	71	1	311	65
Fruit cocktail, canned, water packed	1 cup	74	15	336	18
Grapes	10	31	1	72	7
Cantaloup	½ melon	60	24	502	28
Nectarines, raw	1	32	1	147	2
Peaches, raw	1	38	1	202	9
Pears, raw	1	122	1	260	16
Pineapple, raw	1 cup	69	1	195	23
Plums, raw	1	33	1	150	9
Raisins	1 cup	462	17	1221	99
Rhubarb, cooked, sweet (Ca may be unavailable due to oxalic acid)	1 cup	376	5	541	208
Watermelon	1/16 melon	152	10	560	38
<b>GRAIN PRODUCTS</b>					
Biscuits, baking powder	1	129	175	41	42
<b>Bread:</b>					
Cornbread, made with milk and egg	1 ounce	122	176	42	91
French	1 slice	58	116	18	9
Rye (American)	1 slice	56	139	33	17
White	1 slice	62	114	24	20
Whole wheat	1 slice	56	132	63	23
<b>Cereals:</b>					
Cream of Wheat, regular	¾ cup	100	3	17	10
Oatmeal	¾ cup	111	1	98	16
<b>Crackers:</b>					
Graham	1	27	48	27	3
Saltine	2	28	70	7	1
Whole wheat	1	16	30	120	1
Macaroni, cooked, no salt	1 cup	151	2	85	11
Muffin, English (Wonder)	1 medium	131	293	N.L.	80
Noodles, egg, cooked, no salt	1 cup	200	2	70	16
Pancake, from mix	1 pancake	61	152	42	58
<b>DESSERTS AND SWEETS</b>					
<b>Cookies:</b>					
Brownies, iced, frzn	1	126	69	54	12
Chocolate chip (commercial)	2 cookies	104	69	30	8
Fig bars	2 bars	100	96	56	22
Ginger snaps	4	67	161	73	12
Oatmeal and raisins	2	126	55	104	6
Sandwich type (round)	2	99	96	8	5
Sugar	1	89	108	15	16
<b>Doughnut:</b>					
Cake (plain)	1	125	160	29	13
Raised	1	124	99	4	11
<b>Cakes, from mix:</b>					
Angel	1/12	121	134	40	4
Devil's food	1/12	183	402	70	37
White	1/12	187	238	38	31
Yellow	1/12	182	242	39	36
<b>Pies, frozen:</b>					
Apple	1/8 of pie	160	208	76	13
Banana cream	1/6 of pie	100	90	203	25
Cherry	1/8 of pie	100	169	82	12
Chocolate cream	1/6 of pie	85	107	119	53
Pecan	1/8 of pie	100	241	123	38
<b>Rice, cooked, no salt:</b>					
Brown	1 cup	178	10	105	18
White	1 cup	164	6	42	15
<b>Rolls:</b>					
Brown and serve	1	92	138	28	14
Refrigerated dough (from mix)	1	105	342	43	20
<b>Snacks:</b>					
Corn chips, Fritos	1 ounce	154	231	23	35
Popcorn with oil and salt	1 cup	41	175	256	1
Potato chips	10	114	200	226	8
Pretzel sticks (Frito Lay)	3	324	17	99	21
Spaghetti, cooked, no salt	1 cup	150	2	92	12
<b>LEGUMES AND NUTS</b>					
Almonds, roasted and salted	1 cup	984	311	1214	369
Beans, baked, no pork	1 cup	236	606	832	100
<b>Beans and peas, dry, cooked:</b>					
Northern	1 cup	118	5	416	50
Blackeye, cooked	1 cup	178	12	625	40
Navy	1 cup	118	3	416	50
Pinto, calico, raw	½ cup	349	4	984	135
Split, cooked	1 cup	208	5	536	20

	Amount	K cal.	Na	K	Ca
Kidney, canned	1 cup	225	844	660	72
Cashews, roasted	1 cup	561	1,200	464	38
Peanuts:					
Dry, roasted salted	1 cup	838	986	1009	104
Unsalted	1 cup	838	8	1009	104
Peanut butter	1 tablespoon	86	81	123	11
Pecans	1 cup	696	1	420	74
Pistachios	1 cup	594	6	972	131
Walnuts, English	1 cup	781	3	540	119
<b>VEGETABLES</b>					
Asparagus, canned	4 spears	14	298	127	14
Green snap beans, cooked, fresh	1 cup	31	5	189	63
Snap beans, canned	1 cup	43	326	227	81
Beets, cooked, fresh	1 cup	54	73	344	24
Beets, canned	1 cup	62	479	276	32
Broccoli, raw	1 stalk	32	23	382	103
Cabbage, green, raw	1 cup	24	8	233	49
Carrots, raw, grated	1 cup	46	34	375	41
Carrots, canned, regular	1 cup	45	386	180	45
Cauliflower, raw, flower pieces	1 cup	27	17	295	25
Celery, raw	1 stalk (outer)	8	25	170	20
Corn:					
Cooked, fresh	1 ear	70	1	151	2
Frozen	1 cup	130	7	304	5
Cream style, regular, canned	1 cup	210	671	248	8
Whole kernel, regular, canned	1 cup	174	384	204	6
Cucumber	7 slices	4	2	45	7
Lettuce, iceberg, chopped	1 cup	7	4	96	11
Mushrooms, raw	1 cup	20	7	290	4
Mushrooms, canned	1/3 cup	17	242	N.L.	7
Onions	1 medium	38	10	157	27
Peas:					
Cooked	1 cup	106	2	294	34
Frozen, regular	3 ounces	58	80	116	16
Canned	1 cup	117	493	128	35
Potatoes:					
Baked or boiled without skin (1-3/4" in diameter)	1 medium	139	5	755	14
French fried	10 strips	137	15	427	8
Mashed, instant	1 cup	166	485	704	65
Mashed with milk and salt	1 cup	137	632	548	50
Pumpkin, canned	1 cup	76	12	552	58
Spinach:					
Raw, chopped	1 cup	14	49	259	51
Fresh, cooked	1 cup	42	94	582	166
Frozen, chopped, cooked	1/2 cup	23	65	333	113
Squash, summer, cooked	1 cup	28	5	282	50
Squash, winter, baked, mashed	1 cup	126	2	922	56
Sweet potatoes:					
Baked or boiled	1 sm. potato	141	20	300	40
Canned, solid packed	1 sm. potato	108	48	200	25
Tomatoes:					
Raw	1 med. tomato	33	14	366	20
Cooked	1 cup	52	10	574	30
Canned, whole	1 cup	42	584	434	12
Tomato paste	1 cup	215	77	2,237	71
Tomato sauce	1 cup	97	1,498	1,060	32
<b>CONDIMENTS, FATS AND OILS</b>					
Catsup	1 tablespoon	16	156	55	3
Mustard, prepared, yellow	1 teaspoon	4	65	7	4
Olives, green, large	4 olives	18	323	8	10
Pickles, dill	1 lg. pickle	11	928	200	26
Sauces:					
A-1	1 tablespoon	12	275	51	3
Barbecue	1 tablespoon	15	130	28	3
Chili	1 tablespoon	17	227	63	2
Tartar	1 tablespoon	95	182	16	4
Worcestershire	1 tablespoon	12	206	120	15
Butter, regular	1 tablespoon	108	116	4	4
Margarine	1 tablespoon	108	140	3	3
Salad dressing:					
Blue cheese	1 tablespoon	71	153	5	11
French, bottled	1 tablespoon	57	214	11	2
Italian, bottled	1 tablespoon	77	116	2	2
Mayonnaise	1 tablespoon	61	78	1	2
Russian	1 tablespoon	74	133	24	3
Thousand Island	1 tablespoon	70	109	16	2