

FOODS THE PRESERVE
THE
ALKALINE RESERVE

by

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*About nature,
Consult nature herself.*

LORD BACON

INTRODUCTION

MOST of the unpleasant symptoms from which we suffer are due to gross errors in diet, usually accompanied by acidity.

First let us define the two terms ACIDOSIS and ALKALOSIS.

Acidosis is a depletion of the alkali reserve of the body; diminution in the reserve supply of fixed bases in the blood and other body tissues. There are two principal types of acidosis; the acid-ash and acetone. Acid-ash acidosis is best explained as follows; food is a fuel and when "burned" in the body, during or after digestion, leaves an ash. This food ash is neutral, acid or alkaline, controlled largely by the composition of the food.

Acidosis of the acetone type is also related to the burning of food in the body; fats are not easily consumed without the presence of sugars and starches. If the body does not utilize its supply of sugar properly, combustion of the fats is incomplete and an acetone acidosis results. This type is now usually spoken of as ketosis (the presence of ketone or acetone in the body).

Alkalosis is excessive alkalinity of the body fluids; increased alkali reserve in the blood and other body tissues. Alkalosis is rare; it seems almost impossible to create it by the use of natural alkaline foods. However certain chemical substances, such as sodium bicarbonate and many nostrums foisted upon the public, as alkalizers, may provoke alkalosis. Just as in the chemist's test tube, so it is in the body, alkalies neutralize acids; so to preserve the alkaline reserves it is most important that our diet includes enough alkaline-ash foodstuffs to offset the acid forming foods and leave a safe margin of alkalinity.

The natural ratio between alkaline and acid elements in the normal healthy body is approximately 4 to 1, giving an alkaline reserve of 3; the food intake should be in the same proportion, about 4 parts alkaline foods to 1 part acid.

When the proper ratio between acid and alkaline foods is established a strong resistance and immunity to disease results.

If the alkaline-acid ratio drops to 3 to 1 health is seriously menaced; a surprising number of people today are dangerously near this condition; should the alkaline-acid ratio ever drop to 2Ma to 1 death would occur. Life is possible only in the presence of an adequate and positive alkaline condition of the body tissues and blood.

Balanced body chemistry results in good digestion, assimilation and elimination; these functions are the key to health and a beautiful body; not the narrow conception of beauty that we are supposed to attain by external cosmetic art, but the deep abiding beauty that manifests itself by sparkling eyes, lustrous hair, fine teeth, beautiful nails, sound, strong bones and a clean unblemished skin; a really healthy, beautiful body; efficient, ambitious, alert and pulsating with the sheer joy of living.

ACIDITY AND ALKALINITY NUMBERS OF THE MORE IMPORTANT FOODS

The acid and alkali numbers given in the following food tables express the approximate potential acidity and the approximate potential reserve alkalinity. These numbers are obtained by expressing the amounts of sulphur, phosphorus and chlorine present in, the acid forming foods as the equivalent number of cc. (cubic centimeters) of normal acid; and the amounts of potassium, sodium, calcium and magnesium, in the. alkalizing foods, as equivalent numbers of cc. of normal alkali.

The data obtained by the mineral analysis of foodstuffs show a definite relationship to their chemical behavior in the body, as regards their influence on the acid-base balance.

ACID FORMING FOODS

1 Ounce Portions (30 grams)

	Acid No.		Acid No.
Egg yolk	7.5	Goose	3.0
Herring (smoked)	5.5	Turkey	3.0
Oysters	4.5	Barley	3.0
Crab	4.5	Cereals generally.....	3.0
Lobster	4.0	Whole egg	3.0
Oatmeal	3.6	Macaroni	3.0
Sardines	3.4	Spaghetti	3.0
Veal	3.3	Rice (white or brown)	2.8
Salmon	3.3	Haddock	2.5
Perch	3.3	Walnuts	2.4
Swordfish	3.3	Crackers generally....	2.3
Heart	3.3	Bread (whole wheat)	2.2
Kidney	3.2	Bread (white).....	2.2
Chicken	3.2	Egg white	1.7
Rabbit	3.2	Dry corn	1.7
Liver	3.0	Cheese (American)..	1.6
Beef	3.0	Corn flakes	1.6
Pork	3.0	Corn meal	1.6
Bacon	3.0	Corn bread	1.6
Mutton	3.0	Zweiback	1.6
Lamb	3.0	Lentils	1.5
Ham (smoked)	3.0	Soda crackers	1.0
Frog	3.0	Peanuts	0.7
Duck	3.0	Green corn on cob	0.5

ALKALI FORMING FOODS

1 Ounce Portions (30 grams)

	Alkali No.		Alkali No.
Figs (dried)	30.0	Potatoes	
Molasses	18.0	(sweet or white)..	2.0
Olive (green or ripe)	16.0	Apricots (fresh)	2.0
Lima beans (dried)..	12.0	Pineapple (fresh)....	2.0
Soy beans	12.0	Baked beans	2.0
Apricots (dried)	9.5	Cherries (sweet)	1.8
Spinach	8.0	Nectarines	1.8

Mustard greens.....	8.0	Cabbage	1.8
Turnip greens	8.0	Currants (dried)	1.7
Dandelion greens	8.0	Radishes	1.7
Beet greens	8.0	Grapefruit	1.7
Kale	7.0	Orange	1.7
Raisins (seeded).....	7.0	Sauerkraut	1.7
Swiss chard	5.0	Tomatoes	1.7
Lima beans(fresh)..	4.5	String beans	1.6
Parsnips	3.6	Lemon	1.6
Almonds	3.6	Cauliflower	1.6
Carrots	3.5	Peaches	1.5
Beets	3.5	Mushrooms	1.2
Dates	3.0	Apples	1.1
Rutabaga	2.5	Pears	1.1
Rhubarb	2.5	Bananas	1.1
Celery	2.5	Grapes	1.0
Cucumber(with peel)	2.5	Watermelon	1.0
Cantaloupe	2.2	Squash	1.0
Lettuce	2.2	Buttermilk	0.7
Parsley	2.2	Whole milk	0.5
Endive	2.2	Onions	0.4
Pomegranate	2.0	Green peas	0.3
Watercress	2.0	Asparagus	0.2
Coconut	2.0	Ice cream	0.1

ALKALINITY NUMBERS OF THE MORE IMPORTANT JUICES (per pint 480 grams)

Fig	200	Pineapple	16
Beet greens	64	Pomegranate	16
Dandelion	64	Watercress	16
Spinach	64	Cabbage	14
Turnip leaf	64	Grapefruit	13
Parsnip	28	Orange	13
Carrot	28	Radish	13
Beet	28	Sauerkraut	13
Celery	20	Tomato	13
Cucumber	20	Lemon	13
Rhubarb	20	Apple	9
Parsley	17	Pear	9
Apricot	16	Grape	8
Coconut	16	Watermelon	8
Endive	16	Asparagus	1½

PRACTICAL APPLICATIONS OF THE ACIDITY AND ALKALINITY NUMBERS

In the literature of nutrition, a model or suggested meal is always given in terms of average servings. The following amounts have been accepted as the averages.

Breads.....	1	ounce	(30 grams)
Cereals (dry).....	1	ounce	(30 grams)
Cheese.....	1	ounce	(30 grams)
Fruits (dried).....	1½	ounces	(45 grams)
Fruits (fresh).....	3½	ounces	(100 grams)
Milk.....	8	ounces	(240 grams)
Meat, fish or poultry.....	3	ounces	(90 grams)
Vegetables (fresh).....	3½	ounces	(100 grams)
Vegetables (dried), Legumes.....	1	ounce	(30 grams)

For convenience the following approximate household weights and measures are given (all measurements level).

One ounce (30 grams); two tablespoons of the following: butter, buttermilk, cream, grape juice, lemon juice, milk (skim or whole), molasses, oil, orange juice, peas (dried), rice (brown), sugar (granulated), tapioca (minute or pearl), wine.

One ounce (30 grams); three tablespoons of the following: barley, beans (lima dried), beans (navy dried)-, cornmeal, cornstarch, flour (rice), flour (white sifted), malted milk, rice (white), sugar (brown), wheat (cream of, dry), wheatena (dry).

One ounce (30 grams); Four tablespoons of the following: flour (whole grain unsifted) flour (white unsifted), cocoa, sugar (powdered).

One ounce (80 grams); five tablespoons of the following: oats (rolled dry), cocoanut (dried).

As a practical example of how to use the acid and alkaline numbers, a meal is outlined, balanced so as to yield an alkaline-acid, ratio of approximately 4 to 1, ensuring an adequate alkaline reserve, at the end of the day.

Other meals and combinations can of course be planned by using the acidity and alkalinity numbers; for a wider range of foodstuffs, consult similar but much more complete tables in the standard works on nutrition. It is not, however, necessary to make daily calculations just form the habit of eating about four parts of the alkalizing foods to one part of the acid forming foods, and be sure to use the fruit and vegetable juices and eat generously of the leafy green vegetables;

then the alkaline reserve will take care of itself and your body will be plentifully supplied with the essential vitamins and minerals.

AVERAGE FOODS USED IN DAILY NORMAL DIET (Adult Average Body Wt., 155 lbs.)

FOOD	HOUSEHOLD MEASURE	ACID	ALK.
Meat, fish or poultry...	3 ozs.	9.0	
Egg.....	1 (av. 1 $\frac{3}{8}$ ozs.)	5.5	
Milk.....	2 cups (1 pint)		8.0
Cream.....	$\frac{1}{2}$ cup		0.7
Butter.....	3 tablespoons		Neutral
Bread (whole grain)..	5 slices	6.6	
Potato.....	1 medium		10.8
Sugar	3 tablespoons		
Jelly	2 tablespoons		
Cake (plain).....	2 inch cube	1.6	
Orange.....	1 medium		5.6
Apple.....	1 medium		5.7
Banana.....	1 medium		5.6
Tomato.....	1 medium		5.6
String beans.....	1 sauce dish		2.7
Lettuce.....	3 leaves		2.2
Carrots.....	1 sauce dish		10.9
Soup (fresh vegetable juice).....	8 ozs., carrot and celery		12.0
Flour.....	$\frac{1}{2}$ tablespoon	0.4	
Cereals (cooked).....	1 sauce dish	3.6	
Celery.....	3 stalks (3 ozs.)		7.5
Orange juice.....	1 glass (8 ozs.)		6.5
Pineapple.....	1 slice (3 ozs.)		6.0
Fresh carrot juice.....	8 ozs.		14.0
Olive (green or ripe)..	3 (about $\frac{1}{4}$ oz.)		4.0
		26.7	107.8

Alkaline-acid ratio approximately 4 to 1.
Alkaline reserve 81.1.

The foodstuffs listed above are, of course, used in the preparation of the usual main dish, salads, desserts, beverages, etc.

THE ESSENTIALS OF AN ADEQUATE DIET

PROTEIN — for building and repairing the body tissues.

They (experimental data) all point to the conclusion when the life history of the individual is considered, a generous protein ingestion or one allowing a fair margin of safety over the lowest percentage which just suffices to induce maximal growth in the young serves to maintain vigor for the longest possible period.

CALORIES—for heat and energy.

The well-known organic foodstuffs, carbohydrates, proteins and fats, contain stored energy which in large part is liberated in the body. The energy contained in any foodstuff may be determined accurately by measurement of the heat which it yields on combustion in a calorimeter. It is expressed in units of heat known as calories.

PHOSPHORUS—for building bones, teeth and certain body tissues, and for preventing dental decay.

Bone development may also be interfered with by inadequacy of the phosphorus supply, especially at early ages when the muscles also are growing rapidly and competing with the bones for the phosphorus which the blood brings.

IRON—for building blood and for protecting against nutritional anemia.

Iron is an essential constituent of hemoglobin, the oxygen-carrying pigment of the blood.

VITAMINS—for promoting growth, and for maintaining health.

As food constituents vitamins are characterized by the disproportion between the great importance of their nutritional functions and the very small amounts necessary for the adequate fulfillment of those functions.