THE BIOLOGIC LIFE

By
Dr. John Harvey Kellogg

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Rules for "Right Living"

BY

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Biologic Living

BIOLOGY is the science of life. Biologic living is the science of right living—simple, sane, sensible living according to the laws of Nature—living that brings health, happiness and longevity.

We have been studying the biology of our horses, cows, pigs and other domestic animals for centuries. We have devoted much thought and experiment to their care, feeding and breeding. As a result, we have steadily advanced our animals in efficiency and physical perfection. We have done this because animals have economic value.

But, strangely enough, we have generally overlooked the fact that we, too, are animals—homo sapiens—with a biology of our own. Although life is precious and he will struggle to maintain it unto his last breath, man usually fails to follow the natural laws of diet and the simple habits of living which are best adapted to his environment.

In consequence, the human race is becoming dwarfed, weasened, neurotic, dyspeptic and degenerate. While animals, through man-made discoveries of the scientific principles of biologic living are advancing in the scale of existence, we, their masters, the lords of creation, are degenerating because we neglect to obey these self-same principles!

The author of this little booklet has devoted his lifetime—more than fifty years of active research, observation and experiment—in an earnest effort to discover the way to live biologically. The results are here epitomized in a few simple rules.

Every suggestion made has been thoroughly tried and tested by years of actual experience.

Many thousands of people, through adherence to these biologic principles of liv-
ing, have been delivered from feebleness, misery and inefficiency to full vigor and the joy of exuberant health.

Biologic living means natural food, good digestion, efficient elimination, plenty of fresh air and exercise. In other words, a sound body and a sound mind thrilling with the pleasure of being alive.

Living on the "fat of the land." Forget so-called breakfast foods and culinary delicacies. Abjure fleshpots and "sea food." Let Mother Earth feed you. Find your bill of fare largely in the fields and gardens and orchards. Eat the vegetables, fruits, nuts and green stuffs Nature provides for the delight of us, her children. For these delectable foods abound in Vitamins, the real Elixir of Life.

Live and work out of doors as much as possible. Shun close, stuffy rooms. Enjoy clean, fresh air and the balm of vitalizing sunshine. Sleep out of doors in fresh air—the best life-preserver known. Arrange a sleeping porch or balcony and enjoy an outing all night long. And keep it up all through the winter.

Let "close to Nature" be your first rule of biologic living. Only through her may you ever learn to know the true meaning of healthful, happy existence.

Learn to live biologically.

Begin today!

JOHN HARVEY KELLOGG.

Rules for "Right Living"

The purpose of this booklet is to present a few simple rules, the careful following of which, the writer believes, will promote physical, mental and moral efficiency, as well as prolong life and useful activity.

Space is too limited to permit the full presentation of arguments or reasons for these rules. They have been prepared chiefly for those who are already convinced of the correctness of the general propositions of the "simple life," "right living," of "return-to-Nature" movement.
For the encouragement of those to whom the ideas presented are altogether new, be it noted that every rule here presented, that of the various suggestions made, not one is presented which has not been thoroughly tried and tested in the experience of hundreds, even thousands of persons; nor is a single proposition offered which does not rest upon a sound basis of scientific fact.

The "simple life" is not an innovation. It is a return to the "old paths" from which the perversions of our modern civilization have gradually diverted millions of men and women, perversions that are responsible for the multitudinous maladies and degeneracies which yearly multiply in number and gravity.

Modern medical research has demonstrated that most maladies from which human beings suffer, chronic as well as acute, are due to infection of the alimentary canal by poison-forming germs. Many scores of such germs are known. The poisons they produce are absorbed by the system and give rise to a great variety of distressing maladies and symptoms. Unnatural foods and unwholesome habits of life encourage infection of the intestine by introducing poison-forming bacteria and promoting their growth. Natural food and natural habits of life combat these disease-producing infections. Hence the "simple life" is an antitoxic life, a clean life in the largest sense.

General Rules

1. Give attention daily to cultivating health. It will pay. Study the conditions and the surroundings of your home and business, and give careful thought to personal habits and practices with special reference to their bearing on health.

2. Since health of body and mind are the most valuable of all personal assets, make every reasonable effort to maintain
them intact, and if possible, increase your capital of physical and mental strength.

3. Give to the body and its functions that care and study which you would accord to any other valuable and costly mechanism, so as to become familiar with its needs and the best means of supplying them.

**Eating for Health and Efficiency**

4. Eat only natural foods; that is, those which are naturally adapted to the human constitution. The natural dietary includes fruits, nuts, cooked grains, legumes and vegetables. Natural food imparts to the body the greatest amount of energy and maintains normal conditions of life. No animals but scavengers and men eat everything. We should follow our nearest relatives, the orang and chimpanzee, in diet.

5. Avoid meats of all sorts (flesh, fowl, fish, including “sea food”). They are all likely to contain deadly parasites of various kinds, and always contain countless numbers of noxious germs, “meat bacteria” or “wild germs” which infect the intestines, cause putrefaction and other poison-forming processes, and inoculate the body with colitis and many other diseases. These germs are not destroyed by ordinary cooking, such as stewing, boiling, frying and roasting.

6. Take care to avoid an excess of protein, that is, the albuminous element which is represented by lean meat and the white of eggs.

An excess of protein promotes putrefaction in the colon, and thus intestinal auto-intoxication, the chief cause of “biliousness,” colitis, appendicitis, gallstones, arteriosclerosis, possibly cancer, Bright’s disease and premature old age. Ordinary bread contains a sufficient amount of protein, as do also most other cereals. A glassful of milk at each meal will insure an ample supply of protein.
7. Eggs should be eaten in great moderation, if at all. They encourage autointoxication and thus often cause "biliousness." The yolk of the egg is more wholesome than the white. Raw white of egg is indigestible and harmful. Avoid eggnog.

8. Many persons are sensitized to cow's milk and cannot make use of milk in its ordinary form without headache, constipation and other unpleasant symptoms. In some cases, boiled milk is less objectionable than raw. In others, buttermilk causes no inconvenience. Sometimes cottage cheese or cream cheese may be safely eaten. In general, persons who discard meat should take with their meals daily from a pint to a pint and a half of milk to supply the proper amount of "complete" protein. One who does this may without any risk whatever wholly discard meat in all forms.

9. Animal fats, such as lard, suet and strong butter, should be avoided. They are difficult of digestion and promote intestinal autointoxication, and thus cause "biliousness." Vegetable fats are more easily digested, and do not encourage intestinal autointoxication. To be wholesome, butter must be perfectly sweet and should be made from sterilized cream.

In general, cream is more easily digested than butter or other fats, because it is emulsified. Hence where cream or milk disagrees, causing headache or coated tongue, butter should be used as the source of fat. Olive oil, lard and other fats are lacking in vitamins and hence are not a good substitute for butter or cream. Recent experiments by Hindhede show that the proportion of fat in the daily ration may be very greatly reduced without injury.

10. Avoid poison-forming foods. Tea, coffee, chocolate and cocoa contain poisonous alkaloids which impair digestion, damage the nerves and promote disease of the liver, kidneys and blood vessels. Hot fruit
juices and cereal beverages are wholesome substitutes for tea and coffee.

11. Condiments—mustard, pepper, pepper sauce, cayenne, capsicum, vinegar, hot irritating sauces and spices of all kinds—must be wholly discarded. They irritate the stomach, causing gastric and intestinal catarrh, gastric ulcer, colitis, as well as damage to the liver and kidneys.

12. Common salt, or chlorid of sodium, should be used sparingly. According to Richet and others, the food naturally contains all the chlorid of sodium actually required by the body, so that the addition of salt to the food is necessary only to please a cultivated taste. A safe rule is: The less the better.

Persons who have dropsy, Bright’s disease, arteriosclerosis, gastric ulcer, hyperacidity, obese persons, and epileptics should discard salt.

13. Food combinations should be such as to give the proper proportion of the several elements—proteins, carbohydrates and fats. Fruits and vegetables, as well as other combinations of natural foodstuff, agree perfectly when mastication is sufficiently thorough to reduce the food to a liquid state in the mouth.

14. The quantity of food should be adapted to the size of the person and the amount of work he does. Never eat to satiety. A person of average height and moderately active requires 250 calories of protein ($\frac{1}{10}$ of the total), 750 calories of fat ($\frac{1}{10}$ of the total) and 1,500 calories of carbohydrates ($\frac{1}{10}$ of the total) or a total of 2,500 calories or food units, daily.

The proper quantities for any bill of fare may be easily figured out by aid of a Diet List. (See “Eating for Health and Efficiency.”)

The body can dispose of a small excess, but cannot make up a deficiency. Weigh, once a month. To reduce weight, eat less and exercise more. Eat one-third more
when doing hard, muscular work. Mental work requires no more food than loafing.

15. Food must be well relished to be well digested. According to Pavlov, "appetite juice," which is produced by stimulation of the nerves of taste by palatable food, is the most important factor in gastric digestion. Food eaten when hungry is better digested than when taken merely because it is meal time.

16. Cane sugar should be eaten only in small quantity. Large quantities cause acidity and give rise to gastric catarrh and indigestion. Sweet fruits, such as raisins and figs, honey and meltose or malt sugar, are natural and wholesome sweets and may be eaten freely.

17. A sedentary life tends to produce intestinal inactivity, that is, slow digestion and constipation; hence the ordinary daily bill of fare should supply an adequate amount of laxative foodstuffs, in the form of fresh, sweet fruits (not preserves), especially figs and prunes, acid fruits and fruit juices, fresh vegetables, bran and whole grain preparations.

18. Some fresh, uncooked food should be eaten at each meal in the form of fresh fruits or fruit juices, lettuce, raw cabbage, cucumber and other salads to supply vitamins.

19. Fresh vegetables and a liberal amount of greens daily are needed to supply lime, potash and iron. The free use of cane sugar, white bread and meats leads to lime starvation.

20. If eggs as well as meat are discarded, nuts must be eaten freely to supply complete proteins; in addition, a pint of milk should be taken daily.

21. Avoid complicated dishes and great variety at one meal, but vary the diet from day to day, as the appetite may indicate.

22. Eat at regular hours, so as to maintain the normal intestinal rhythm which
secures the daily movements of the bowels. Rather than omit a meal entirely, eat some fruit or bran with fruit juice and paraffin oil, or some other simple nutrient which will keep up the peristaltic procession and rhythm.

Never take food into the stomach when remains of a previous meal are present.

23. The best meal plan is to eat twice a day. Eight to nine A.M. and three to four P.M. are the best hours; or eleven A.M. and six P.M., if the retiring hour is necessarily very late. When breakfast is omitted or taken very late, it is an excellent plan to take some fruit soon after rising.

If three meals are eaten, the heartiest meal should be taken at midday. The breakfast should be substantial, the evening meal very light, especially avoiding pastry, fats, rich sauces and hearty foods. The evening meal should consist chiefly of ripe or cooked fruits, liquid foods and such cereals as boiled rice or cereal flakes.

24. Avoid iced foods and drinks. Very cold foods or drinks, if taken at all, should be swallowed slowly and in very small quantities to avoid chilling the stomach.

25. Chew every morsel until reduced to liquid in the mouth. Thorough chewing develops “appetite juice” in the stomach and combats intestinal auto-intoxication, a most prolific cause of disease, Careful mastication affords opportunity for the nutritive instincts to select the food and food elements adapted to the body needs, and to say “Enough,” at the proper moment. Hence, give preference to dry foods. Sip liquid foods slowly, taking care to in-salivate thoroughly.

26. What we eat today will be walking about and talking tomorrow; hence all foods not known to be pure and wholesome should be avoided. Especially avoid rich and so-called hearty (hard to digest) foods, and such indigestibles as pickles, green olives and preserves.
27. Take three or four pints of water a day, including liquid food.

Do not drink much during nor immediately after meals. Take a few sips whenever thirsty.

Drink a glassful of water on rising in the morning, on retiring at night, an hour before each meal and two or three hours after eating.


Exercise for Health

29. Live as much as possible in the open air. If compelled to work indoors, be sure that the living and work rooms have an ample, continual supply of fresh air. The lower the temperature the better, so long as the body is kept comfortably warm. Temperatures above 70° are depressing. Every breath of cold air taken into the lungs is a vitalizing, stimulating tonic for the body. A thousand breaths an hour have a considerable effect upon health or disease, depending upon whether the air breathed is pure and cool, or impure and hot.

30. Working in the open air is one of the best forms of exercise, especially working in the garden, digging, hoeing, pruning, etc. Do some good, hard, muscular work every day, enough to produce slight muscular fatigue and free perspiration; but avoid exhaustion. Exercise out of doors is most beneficial.

Swimming in water at 76° to 78° is the best of all special health exercises. Rapid walking and hill climbing are excellent; stair climbing is good.

31. One need not degenerate physically because his occupation is sedentary. Always sit erect, with chest held high and
the small of the back supported. Sit as little as possible: Standing and lying are more natural and healthful positions than sitting. One may exercise while sitting at work by deep breathing and by stiffening the muscles of first one limb a few seconds, then the other. All the muscles of the body may be exercised in this way.

32. Deep breathing aids digestion, encourages the liver and bowel action, develops the lungs and purifies the blood. The only directions needed are: Hold the chest high and breathe as deeply as you can ten or twenty times every hour, or oftener. The best "breath" gymnastics are swimming, hill or stair climbing and rapid walking or running. Always breathe through the nose.

33. In walking, always hold the chest high and carry it well to the front. Swing the arms moderately and walk fast enough to hasten the breathing a little. Nine miles walking a day at the rate of three miles an hour is the necessary amount for the average adult. Most housekeepers and laborers do more.

34. Develop the abdominal muscles by some simple exercises, such as walking on tiptoe with chest held high, or running round the room on all fours; or lie on the back, hold the legs straight and raise them to the perpendicular, repeating twenty to forty times, twice a day.

Lying on the back, feet held down, raise the body from the lying to the sitting position with the hands placed upon the back of the neck. Repeat ten to twenty times, twice a day, gradually increasing the number.

35. If the abdominal muscles are weakened, so that the lower abdomen bulges forward, an efficient abdominal supporter should be worn about the lower abdomen when on the feet, until the muscles have been strengthened by exercise.
The Toilet

36. Cleanse the mouth and teeth thoroughly before and after each meal, on rising and on retiring. A foul tongue and decaying teeth indicate mouth infection and intestinal autointoxication and general low resistance.

37. Bathe daily at night in warm weather. Twice a week in winter, take a warm, cleansing bath before retiring. Apply olive oil or fine vaseline after the bath if the skin is dry.

If the skin is irritated, apply Dr. Buckley's skin cream, of which the following is the formula:—

Lanolin .................. 2 drams
Boroglyceride ............ 1 dram
Cold cream ............... 6 drams

If the skin irritation is very great, add five grains of carbolic acid and ten grains of menthol to the above. Apply after bathing in cold weather, especially when using hard water.

Rub the scalp with the finger tips dipped in cold water twice a day.

38. Take a short cold bath every morning on rising. This is an excellent tonic. Or take a cool air bath morning and night, rubbing the skin with a dry towel.

39. The hands, nose and ears also require sanitary attention. For the hands, use a good soap and rinse well with soft water. If rough, apply skin cream (as given above).

40. The bowels should move thoroughly three times a day, most naturally soon after each meal. Many persons move the bowels soon after rising. Train the bowels by trying to move them on rising and after meals.

41. Putrid, foul-smelling stools are an indication of intestinal autointoxication,
and are due to an excess of protein in the form of meat, eggs or of decay (stasis or stagnation) in some part of the colon. Such a condition always breeds disease and indicates need for a “change of flora.” Find how to change the flora and keep it changed.

Sleep and Rest

42. Sleep eight hours each night. If not strong, or neurasthenic, take a nap before dinner. Growth, assimilation and repair are most active during sleep.

43. Surroundings at night should be quiet. Sleep amid noise is not normally refreshing.

On the side is the best position during sleep for most persons. Change sides.

44. The bed should be neither too hard nor too soft. Avoid feathers. The covers should be dry, warm, light and porous. Avoid overheating by excess of clothing. Use a thin pillow and discard bolsters.

45. When asleep always breathe outdoor air supplied by means of wide open windows, a window tent or a sleeping balcony.

46. Make the weekly Sabbath a day of complete rest from work. Spend most of the day out of doors, if possible. Take a half day off for an outing in the middle of the week.

Clothing

47. The clothing should be loose, comfortable, light and porous. Restrictive clothing is necessarily damaging, for the trunk of the body is continually changing in form and size. Wear porous cotton or linen underclothing next the skin.

48. Avoid waterproofs except for temporary protection. Clothe the extremities so as to keep them warm and dry. Avoid too much clothing.
Mental Hygiene

49. Do not worry. The Power that made us can and does take care of us. There is no need to worry. The Intelligence that controls and energizes the heart and lungs can rule our destinies and with our cooperation will lead our lives in ways where “all things work together for good” to us. Worry kills. Hope inspires, uplifts. Cheer up.

50. Do not become self-centered. Avoid thinking or talking about ailments or other unpleasant things. Cultivate altruistic ideals and wholesome and optimistic thoughts.

51. Exercise self-control and restraint in all things. Work uses energy moderately; the passions and emotions enormously.

52. Take a vacation when you dream about your work.

53. Discard tobacco, alcoholic beverages, “tonic drugs” and other nerve foolers. They are poisons which lessen efficiency and shorten life.

54. Avoid nostrums and patent medicines. The habitual use of any drug is harmful. The most eminent physicians are now agreed that very few drugs have any real curative value. The essential thing is right habits of life.

55. For inactive bowels, knead the abdomen well with the hands night and morning, especially the lower side parts. Eat laxative foods, especially fruits and nuts and whole grain “cereals.” Drink a glass of cold water or eat an orange on rising and retiring. Exercise the abdominal muscles. If necessary, use a hot enema (110° to 115° F.) at bedtime for a month or two, or longer if necessary. Use one and a half to two ounces of sterilized bran daily, and half an ounce of psyllium seed (psylla) at each meal. Take one to three tablespoonfuls of paraffin oil (emulsion of paraffin is best) at night. Visit the toilet
regularly after each meal to train the bowels. When a "call" is experienced, respond immediately. Five minutes may postpone action indefinitely. Support the feet on a stool before the closet seat.

56. For a cold, take an electric light or other sweating bath on retiring; drink three quarts of water or weak lemonade daily and eat little but fruit, bran and greens for a day or two and stay out of doors. Live in the fresh air and avoid colds.

57. If sleepless or nervous, take a warm bath at 102° F. for one or two minutes, then cool to 93° to 95°; continue half an hour to two hours if necessary. This rarely fails.

58. If "bilious," take several enemas until the bowels are thoroughly emptied. Drink two or three quarts of water daily. Eat freely of fresh fruits and green vegetables. Avoid fats almost wholly for a few days, and diminish the amount of fats in the regular diet. Make the bowels move three times a day by the use of bran, psyllium seed and paraffin oil, or all if necessary. Use besides, if required, a daily enema at bedtime.

59. As a daily quota of protective food the following should be included in each day's menu: milk, 1 pint (3 cups or more for children); two vegetables, including greens; potatoes; two fruits; one or more raw fruits or vegetables; whole grain bread or cereal; 4 to 6 glasses of water.

60. Eat, drink, sleep, exercise—do all for efficiency. Said Paul, "Whether ye eat or drink, whatsoever ye do, do all for the glory of God." A man can do credit to his Creator only in following the natural order of life intended for him—that is, by living biologically.
Will Durant, the Philosopher

Endorses "Biologic Living"

Dear Dr. Kellogg:

I have now read every word of "The New Dietetics" and I am just bubbling over with gratitude to you for the wisdom that makes every one of its thousand pages precious. If every family in America would read your book and practise its principles, they would not only save a thousand dollars a year in doctors' bills, but they would create a finer Utopia than any dreamer has yet conceived. "The New Dietetics" must hereafter be included in any intelligent list of "The One Hundred Best Books"—indeed, I am putting it down as fourth on the list of "One Hundred Best Books" that I am preparing for a magazine, and I am giving it a warm recommendation in a footnote to my next book, "The Mansions of Philosophy." I think you have the Way and the Life, and I wish every one could have you as his guide.

Sincerely and gratefully,

(Signed) Will Durant
JOHN HARVEY KELLOGG (1852-1943)

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(UNDATED BY TOPIC)

BIOLOGIC LIVING