

is strong because he can lift so many pounds, or jump so high, etc. But when he possesses a healthy, well-balanced, and well-proportioned body, which his will has under good control, then he possesses "physical culture," even though in the eyes of some he may seem weak as compared to others.

Every boy and girl can obtain good health and physical culture if they will only try; even if they cannot go to a gymnasium where there is a good teacher.

By "home gymnastics" and plenty of sunshine, fresh air, good food and water, the most delicate child will gradually become strong. Don't keep the sun away from you by shades, etc., but be right in it (except in the hottest summer days) and as much as possible. Have all the fresh air you can get, and sleep with open windows summer and winter. Eat good, digestible food, and very little of pies, pastry, candy, hot bread, etc. Drink water (not ice water) between meals, but not with meals; and bathe often; a cold bath every morning is especially good for most persons.

Then take some exercises such as are prescribed elsewhere. They are all good for anybody, but some may suit one case better than another. Try to take each exercise in as good a form as possible, and you will be astonished to see the result.

GYMNASTICS.

BY

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CITY life has come to stay, and where a century ago, but a small percentage of the population lived in cities, now as high as 90 per cent. in many states exist. Men prefer to engage in those activities which they can best do, and by exchanging the product of their specialized labor for the necessities produced by others, they may have more and better. The pioneer who provided all that his family had, lived a strenuous life, but not a nerve-racking one; his life was hard but in a way calm. Specialized labor, and the invention of labor-saving machinery, the use of cars, telephone, telegraph, etc., etc., mean a strenuous activity in a more or less limited way if engaged in a trade; or no physical life to speak of, if in a store, or office, or profession.

Most city people are living on the physical vitality stored up by generations of hard labor of the forefathers, and three or four generations of city life sap the vitality of every family not crossed by country blood. A family that desires to survive in city conditions must take part in such physical activities as will produce a normal health. Exercise is absolutely necessary, not alone for bodily health,

but increasingly necessary for mental vigor and character. To prove that the mental power and force of character of manhood depend very largely upon the extent and variety of one's early physical training, one has but to compare the city men who as boys were members of groups whose basis for activity was some wholesome play or game, with the men who as boys never played or exercised more than they were forced to. The latter leads to ill-health, selfishness, and individualism, while the former leads to a rugged physical manhood, full of mental vigor and stamina of character, full of altruistic motives.

Gymnastics is a convenient method of supplying to the city man and boy those activities not demanded by his occupation, and which will harmonize his life. In its broadest use, gymnastics includes all physical activities intended for the promotion of vitality. To fulfil the conditions, they must, in a general way, be interesting, beneficial, and vigorous, recreative and relaxing, wholesome and competitive. The best tendency is to do things in congenial groups, which for the average gymnasium are as follows:

Grammar School boys under 10 years of age.
 " " " 10 and 11 years of age.
 " " " 12 and 13 years of age.
 " " " 14 and over.

Freshmen in high school.

Upper class men in high school.

Employed boys under 14.

Employed boys of the apprentice type, 14 to 18.

College men.

Young men, 18 to 22.

Mechanics, etc., over 22.

Clerks and office men.

Younger business and professional men.

Older business and professional men.

In the selection and use of gymnastic exercises several fundamental principles must be observed.

1. Exclusive specialization on such pieces of apparatus as side horse, parallel bars, horizontal bars, rings, etc., and such games as basketball, and any single athletic event are bad.

2. Boys under 18 should never be given exercises on apparatus demanding a long support by the arms, or enter games and events which call for extreme endurance.

3. Particularly in the elementary grades, the apparatus is to be primarily considered an object to get over, as vaults, etc., rather than to perform on, and the aim should be for general rather than local effects, with the chief dosage on the legs.

4. Exercises must not permanently interfere with the fundamental normal organic conditions of respiration, circulation, nutrition, and nervous function.

5. Correct position of thorax is of utmost importance.
6. Cramped positions and straining exercises on local parts are bad.
7. Beyond the elementary grades, there may be progression in strength, skill, and courage required, as long as they do not violate the fundamentals named.

8. Nearly every boy and man ought to take part in some competitive work, the more informal the better; his interest leads him to become an active member in some club or group whose basis of activity is some wholesome play or competition, as golf, tennis, sailing, skating, athletics, gymnastics, baseball, basketball, swimming, etc.

In city life, a part of a man's spare hours must be spent in engaging with others in those activities which are known to develop power of the type he needs to produce a normal man.

EXERCISE AND EXERCISES.

BY

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[NOTE.—The authors of this paper and those on Diet and Stimulants and the Influence of Training, are two men who believe that the majority of mankind habitually eat too much and habitually take too much stimulating food and drink. They believe also that most people who do so do not take enough exercise, and that either an increase of exercise or a decrease of stimulant is needed. They believe that the best sorts of exercise are not those of slow pushing movements such as are made in the use of dumbbells, but full brisk extended movements, with much use of the breathing apparatus and the large muscle-areas of the body. Similarly they are in accord as regards present systems of training which tend to treat an entire crew or team as if they were identical specimens, not as widely different specimens; in everyday life also they hold that because a certain mode of diet and work suits A, it will not necessarily suit B and C, though B and C might do worse than try it. They also regard the ordinary acceptance of the word "Training" as far too narrow, and hold that to acquire a high fitness of the body is a duty which should be within the reach of everybody, since a mind housed in a fit body is far more capable of good and sustained work than when its shell is imperfect. For this end they advocate the starting of city athletic clubs, fully convinced that these clubs, with a reasonable attention to matters of diet, would secure for the ordinary city-worker a far higher measure of health than he is at present accustomed to enjoy.

Finally, they believe that air, light, and work (and here they do not mind appearing dogmatic) are three prime remedies in the pharmacy of God. And they feel sure that sensuality is bad for everybody.]

IT will not be necessary to go at all deeply into the physiological effects and changes wrought in the body by exercise, but at the same time for those interested in the subject it will be well to sketch in the merest outline the general effect of exercise, and give the reasons why (a rule so universal as to be considered as practically without exception) those who take exercise, especially when they take it in air, where there is a sufficiency of oxygen, are in better health than those who do not.

Now every organ in the body is either in itself a muscle or a system of muscles, or is controlled by muscles. That is to say, none

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