

## THE DEVELOPMENT OF GREAT MUSCULAR VIGOR.

## UNIVERSAL ADMIRATION OF STRENGTH.

Through all the degrees of civilization, from the wild savagery of barbarism to the delicate refinement, the splendor and ceremony, of extreme culture, there will be found the same admiration and respect for strength, for power of body and beauty of person. It seems to be an innate possession common to all. This universal love for strength influences advantageously the general standard of physical excellence. Superior physical strength, other powers being equal, elevates one above the ordinary mortal: it makes a man just that much more a man, a woman just that much more a woman. Many of our really great men owe their envied reputations to their great vital strength, without which they never could have endured the strain of hard, grinding labors which was necessary in preparation for the work which finally brought fame. Genius does not come by chance inheritance; it is usually the result of intensely concentrated efforts towards a definite goal, and the physical stamina of strong vitality, developed, inherited, or both, is its necessary foundation if this divine power is to spring into life with any degree of permanence.

The old law, "The survival of the fittest," is in force to-day as strin-

gently as in the ancient times. Strength was needed then to protect life against violent assault; it is needed to a far greater extent now as a protection against those merciless foes, disease and death.

## INHERITED VIGOR—AGE TO START TRAINING.

To develop great muscular vigor one must have inherited at least ordinary health; the more vigor of body inherited the greater will be the strength acquired. Do not think this great strength can never be acquired merely because of weakness, for some of our greatest athletes were sickly in their youth. To acquire the greatest degree of strength the training or exercise should begin some time between the ages of sixteen and nineteen, though strength nearly as great can, no doubt, be acquired if the start is not made until in the twenties, up to, say, twenty-five. After this great improvement can be made, but of course the muscular vigor acquired would have been greater if the start had been made earlier.

## ABNORMAL STRENGTH SOMETIMES MEANS ABNORMAL HEALTH.

In my article on "The Development of Energy, Vitality and Health" (March issue), I commented at considerable length on

the development of muscular vigor to increase these powers; but if great muscular vigor is desired for feats of strength, to satisfy love for great physical beauty, etc., etc., the manner of training differs quite materially from that which should be adopted to secure the former more normal results. A body which is in the highest degree of health is in a perfectly normal state; there is no extraordinary development of muscle, no ability to perform any wonderful feats of strength, merely the vigor of a wholesome, natural physique. In the development of great muscular strength, where one goes beyond the normal, the natural, in order to astound his friends and fellow-creatures with his physical development and feats of strength, he must not expect, after he has acquired this, to be in the highest degree of *normal health*. I do not mean to infer that disease will necessarily result from the development of abnormal strength, simply that the vital strength, the power to resist the attack of disease and death, will not be so great as under a more normal condition. The reader can well understand that when an attempt is made to get beyond the normal by forcing the muscular system to perform feats which are practically a strain, the results in every case will not be of a desirable nature.

## BEGINNERS NEED NOT FEAR.

There is, however, but little cause for fear on the score of intemperate

development until training has continued for at least from one to three years; therefore, the beginner need not worry for fear that he may acquire muscles of abnormal size and strength. Please remember that the advice which follows is for those who are willing to sacrifice a modicum of vitality to gratify their desire for great strength, though the same work can be followed by any one with benefit if the amount of exercise is greatly decreased, taken with less vigor, and all heavy work and heavy weights avoided. It would be advisable for those who desire health simply to follow the instructions as outlined in the article previously mentioned.

## CHARACTER OF EXERCISE.

All exercises should be taken vigorously, and, after the muscles become hardened to the work, each exercise should be prolonged until the part of the body affected is thoroughly fatigued. Do not stop when the muscles begin to tire slightly, but continue until there is a feeling of pain, which clearly indicates the time to cease. Do not confine the work to one system or method of work; change the methods every few months, or follow different methods at the same time if desired. I would advise the use of dumb-bells, a light pair (two to five pounds) and a heavy pair (ten to twenty-five pounds); a wall apparatus of rubber, or weights as desired, though do not fail to note my comments in article previously





mentioned as to the undesirable effects of certain tensions secured from exercisers made entirely of rubber. A pair of Indian clubs and a punching ball might be added for the sake of recreation, though these are not absolutely essential adjuncts to the work. The light dumb-bells are especially valuable to assist in the development of the arms and shoulders. There are a number of different exercises in which they can be used for this purpose. We expect to illustrate the most useful movements in a future issue of this publication, though the ordinary exercises used in the dumb-bell drills are usually all right. The heavy bells can be used especially for strengthening the back, and for all lifting exercises, raising from the floor to shoulder, and high over head, and for special testing purposes.

#### STRONG LUNGS ABSOLUTELY ESSENTIAL.

The wall apparatus, or chest weight, should be used to assist in developing the arms and shoulders, and especially for expanding and strengthening the chest. It is absolutely essential, first of all, in striving for great physical strength, to make faithful and persistent endeavors to improve the power and general effectiveness of the lungs. These organs purify, oxygenize the blood, which furnishes the muscles, and every part of the body, with that which is necessary to their up-building, and if the

lungs do not receive the special attention they deserve, the result of the work will not be as favorable as expected. With these various exercises for developing lung power with the wall apparatus, there should be a special method of breathing—that is, one different from that ordinarily pursued. With the long, sweeping overhead motions, performed with the arms straight at the elbows, occasionally draw in a deep inhalation, and retain it while two or three motions are being made, before expelling. This tends to force out the walls of the chest more thoroughly, giving more room for the process of enriching the blood with those elements that build up all organs of the body, assisting quite materially in bringing about the desired results.

Never be "half-hearted" in the work. Put energy, life and determination in your every effort. Be sure that every muscle of your body is being used and developed in the system of exercises followed. This is necessary not only for producing symmetry, but in order to acquire the most satisfactory results. Every muscle is stronger if no part of the body has been neglected.

#### STRENGTHEN DIGESTIVE ORGANS.

Remember the importance of strong digestive powers, and develop all the muscles around these great vital organs by different exercises. Take those movements

that especially bring into action the back, and the muscles on the front and the side of the abdomen. There are a number of good free-movement exercises for this, but to a vigorous frame those that can be taken with the wall apparatus will no doubt be found productive of quicker and more satisfactory results. Merely reclining on the back and raising yourself to a sitting position, or raising both legs with the arms stretched back over the head on the floor, are very good exercises for strengthening the muscles of the front of the abdomen, if the strength is equal to the effort without a strain.

#### STRENGTHEN THE HEART.

Be careful of the heart. When it begins to palpitate, stop and rest. Exercise that is adapted to individual needs will strengthen a weak heart, but straining any organ will always result in ultimate injury. A young man under twenty years of age, on one occasion came to me and stated that he had been practically condemned to death by a weak heart. After a course of training of about a year he took up athletics, and on one occasion entered a wrestling tournament, and beat three good amateur wrestlers. The weakness of his heart had entirely disappeared.

If there is any particular feat of strength which you would like to perform, find out the muscles which are used in that feat, and make special endeavors in various ways

to strengthen them, using all the different motions you can discover for bringing them into play. Be careful, of course, not to neglect other parts of the body while doing this special work.

The actual work done, after the muscles become well hardened, should average from an hour to an hour and a half per day. This, of course, does not include the time that should be spent in the open air, walking and running.

#### WALKING AND RUNNING.

Walk from three to five miles per day, through the fields or parks whenever possible; through the streets of a large city if nothing better affords. In your walk move swiftly, energetically, with head erect, shoulders back, chest arched. Make a habit of drawing in deep inhalations when in the open air, expanding the chest to its fullest capacity, tapping it forcibly with the closed hand while the breath is being retained.

Take a slow run of a half mile or a mile every day. Do not be afraid of running through the city streets if no other place or opportunity can be obtained. What does a few grains of dignity amount to when health and strength are at stake? While taking this run occasionally spurt as fast as possible for a short distance. This will help to "oil" the joint and take some of the "kinks" out of the muscles. Whenever convenient, it is a very good plan to take this run





immediately after the walk, and as the perspiration will be dripping from every pore under such circumstances, a complete bath should follow, preferably hot on alternate days, though ending with cold water.

#### ATHLETICS—GYMNASIUMS.

If an athlete, or favorably inclined towards field athletics, or general gymnasium work, most of your training can be done in this way, though home is usually the best place for pursuing any special work that may have been prescribed. Field athletics, when not overdone, are especially to be commended. They take one out in the open air, and after throwing aside the conventional dress, exercise is really a pleasure instead of a task. One feels on such an occasion as though he had been at that moment freed from slavery—like a young horse just released from the imprisonment of a stable.

General gymnasium work can also be recommended. One can secure exercise in any well-fitted "gym" for all the muscles of the body, and the advantage of having competent instructors at hand at all times to advise when needed is a great desideratum.

Never train "stale"—that is, until all the life and energy seem to have disappeared. If "all tired out" the next day after hard training, a complete rest of a day or two should be allowed.

#### FORCING DEVELOPMENT.

But in order to acquire this *great*

*muscular vigor*, remember that considerable time must be spent at these exercises almost daily; that more weight must be added to the dumb-bells and to the wall apparatus every few weeks; that the muscles must not only be urged, but forced forward to do more work in the lifting of more weight, in the performing of greater tasks, day after day, week after week. The weights that once seemed heavy will soon become light. In a short time the prospective athlete will find himself handling with one hand, in every way, a fifty pound dumb-bell with perfect ease, then a seventy-five pound bell, and, after several months, or a year's work, a hundred-pound bell may be attempted. After the athlete becomes sufficiently strong to handle this weight without apparent effort with one hand, throwing it high over head from the floor, without even a stop at the shoulders, putting it up over head several times from the shoulder, etc., he may well say that he has become really and truly strong.

There may come days in the training when all the strength gained will seem to have been lost, but it will be only a temporary relapse, usually indicating the great need of a rest, which should always be indulged in.

#### FLEXING EXERCISES.

To speed the development of the muscles, flexing exercises may be used to advantage. These exercises may be taken while walking,

or while using the dumb-bells, or when making any motion. Simply flex the muscles very strongly. For instance, if lifting a five-pound dumb-bell, try to imagine it one hundred pounds in weight, and make the efforts accordingly; or the muscles can be flexed very rigidly without a single motion being made. The reader, no doubt, is able to harden the muscle of his upper arm at will. Well, the secret of these flexing exercises lies simply and entirely in the ability to control, flex and relax at will every muscle of the body just as the muscle of the arm is controlled. While

walking in the open air, holding the arms close to the sides, harden or flex the muscles of the arms, without bending at the elbows, then make a strong effort to bring them nearer to the body, which, of course, cannot be done. Repeat the effort until tired. After considerable practice one can flex the muscles in the various parts of the body to such a degree of rigidity that as much force is really exerted as when lifting heavy weights or performing difficult feats of strength.

If suppleness and agility are especially desired, considerable light, free exercises should be taken.

Diet, General Instructions, etc., etc., in next issue.—THE EDITOR.

DUMBBELL EXERCISE.



"As long as I've got ter look after dese kids I may as well get some good out of dem."—*The Journal*.

