HYGIENIC SUGGESTIONS

By William Skarstrom, M. D., Instructor in Gymnastics.

EXERCISE.

There are probably now very few persons who do not admit that it is of advantage to take regular exercise; but only a minority realize the urgent necessity for it, or at any rate have the determination to give up time and to overcome their natural inertia in order to obtain it. When one stops to think of the important rôle muscular activity plays in the bodily economy, how the proper functioning of every organ is directly or indirectly affected by it, even the most apathetic must be struck by its intimate relation to the health and efficiency of the organism. The composition of the blood leaving a working muscle is different from that of blood which has passed through a muscle at rest. The circulation of the blood through the whole body is greatly accelerated even during moderate exertion. Thus, for example, the rate of the heart and the arterial pressure are doubled during such work, as is represented in the riding of a bicycle at a rate of about ten miles an hour on level road. The circulation of the lymph, a fluid which acts as a middleman between the blood and the tissue cells is also greatly favored, dependent as it is upon the movements in muscles and joints and on those of respiration. All this means a livelier interchange of material in the tissues of the whole body, a washing out of waste products accumulated during long periods of muscular inactivity, and a taking up by the tissue cells of new material, to be used for constructive or energy-producing purposes. Then there is the effect on digestion, direct, by promoting peristalsis, and indirect, by improving the appetite; the influence on excretion by increasing the activity of the skin and lungs; and finally, as important as any, the effects on the nervous system, whether due to its improved nutrition, or to the advantages of change in its activity, or to more complete rest made possible by the sound sleep to which exercise is conducive. Furthermore, the training of muscular co-ordination is mainly a process of increasing the number and efficiency of nervous mechanisms, the value of which cannot be overestimated.

The body has great power of adaptability, and can accommodate itself to many unfavorable conditions; but in this case, while it may get along with only a small fraction of the amount of activity it is built for, and needs, it does so to its own detriment. Is it to be expected that a person can do his best mental work for any length of time who constantly neglects this great need of his body for work? That this need is real and urgent is made evident by many familiar signs, such as poor appetite and sleep, faulty digestion, dull headaches, and, most common of all, a lethargy and disinclination to exertion — physical and mental — which thus becomes both cause and effect. And not only this, but the deterioration of the muscles themselves and of the nervous mechanisms controlling them, as well as the gradual limitation of movement in the joints from long disuse, instead of acting as a stimulus to effort, tend to dishearten their owner, because he feels that he is not able to hold his own with his fellows who are better favored physically.

The imperfect development, especially of the trunk and upper extremities, which is the result of incomplete training of the body during the period of growth in conjunction with the effects of a "school desk" life since early childhood, is in itself a strong reason for taking exercise, and exercise of a special kind. The flattened chests, rounded backs, drooping heads and shoulders, unfortunately so common, can be improved to a considerable extent by judicious work, which brings into play the muscles responsible for the proper position of those parts, and stretches contracted structures, limiting movement and preventing correct attitudes. The range of motion in the chest can be increased, thereby giving greater efficiency to the breathing mechanism. The shambaling gait and awkwardness of movement, due to lack of muscular control, can be overcome and the power of co-ordination increased by means of various gymnastic and athletic exercises.

In short, then, bodily exercise, while being one of the most valuable means of maintaining health and vigor, physical and mental, is also the most effective, if not the only, agent for correcting faulty