

temperaments will never attain their proper growth and complete development.

The muscles constitute by far the largest portion of the body; they grow only by exercise, and become strong and healthy only by much exercise. Thus they receive their proper share of nutrition, increase in size and strength, and gradually obtain that most important quality—fitness for work and power of endurance. This exercise of the muscles must commence early, and be continued year after year, so that the fibres of the muscles, by repeated extension and contraction, become hardened and toughened; their possessor can then work, and hold on without being tired; will have what is called *great power of endurance*.

On the other hand, where there is deficient exercise and a want of proper growth and development of this temperament, the muscles are pale and weak, soft and flabby, they have not sufficient vitality and strength to carry on in a healthy and vigorous manner the machinery of the whole system. The muscular temperament, when well developed, receives a large supply of blood, and constitutes the leading agency in causing a free and equal circulation of blood through the whole system; whereac, when the muscular power is weak, there is a great tendency to frequent congestion—especially in the internal organs—which prepares the way for much weakness and many diseases.

Besides, this muscular power, in large supply, is needed to obtain good blood by a more vigorous action of the lungs and stomach; no one thing is more important for good health than a free and equal circulation of the blood. This muscular power can be obtained only by a great deal of exercise when young; and no substitute by friction, stimulants, or other human devices, can be found to replace

it. Individuals deficient in this power labour through life under great disadvantages.

One of the most important agencies in producing changes in the system is *heat*. While the primary source of heat arises from combustion, produced in the process of converting nutrition into blood, the muscles have much to do with it in two ways: 1st, in an active circulation of the blood through all parts of the body, thus diffusing warmth with the blood—the greater the muscular power, the better the circulation; and, 2nd, by the muscles themselves acting as generators of heat in their power of extension and contraction, called animal heat of electric currents—the larger the muscular development and the more highly vitalized it is, the greater is the amount of heat produced by exercise. Such an organization is very important to a people living in a cold climate, or one subject to sudden changes of temperature. What inconveniences, what disadvantages, what sufferings must individuals be subjected to through life who have not, within their own persons, such powerful generators of heat and warmth! Clothing to any extent, and artificial heat from whatever sources, afford poor substitutes. Nature, in its normal state, makes the best provisions for warming the body.

There is another agency holding an intimate relation to the muscles which is of vital importance. The nervous system has three great centres in every individual where nerve force is generated. The brain is the nervous centre for the mind, the spinal marrow is the centres for the muscles, and the ganglia, so called, form the nervous centres for the internal organs. Nervous influences emanate from each of these centres, and, while each class of nerves has its own specific work to do, and the functions of one cannot be transferred to another, they hold, indirectly to each other, most intimate