

Each muscle acts as a reservoir for blood, and also as a means for producing heat and motion. Exercise acts as a stimulant to the heart, and "every active muscle," says Weir Mitchell in his book on Fat and Blood, "is practically a throbbing heart squeezing its vessels empty when in motion and relaxing to allow them to fill anew. Thus both for itself and in its relation to the rest of the body its activity is functionally of service." "The vessels unaided by change of posture and by motion lose tone, . . . so that defects of nutrition occur and with these defects of temperature."

There is a physiological law, known as the Law of Treveranus its discoverer, which may be briefly stated thus:—Each organ is to every other as an excreting organ." In other words to ensure perfect health, every tissue, bone, nerve, tendon or muscle should take from the blood certain materials and return to it certain others. To do this every organ must have its period of activity and of rest so as to keep the vital fluid in a proper state to nourish every other part. This process in perfect health is a system of mutual assurance and is probably essential to a condition of entire vigour of both mind and body. The excretory organ that we most persistently neglect is the skin, extra work is thus put on the intestinal and renal systems with the consequence that they are overworked and become diseased.

The skin is stimulated to increased excretion, most fully and naturally by the various forms of physical exercise. By the term physical exercise, I would include passive as well as active movements; from massage in which the will power of the patient plays no part whatever to the most complicated and delicate voluntary movements in which the training is more for the nerve centres than for the muscles.

In massage the tissues of the body are exercised by the operator for a therapeutic purpose by stroking or rubbing, kneading, pinching, rolling and beating the muscle masses and through them the underlying organs. "By these means are the muscles exercised without the use of volition or the aid of the nervous centres, while increasing mechanically the flow of blood to the tissues which they feed."