

satisfaction of knowing that such states can be slowly influenced by individuals living in the best possible conditions and transmitting the influences of good moral and physical hygiene.

Thus a race which has a low degree of longevity may acquire, by persistent attempts to live in the best conditions, a long average duration of life, and this is also true, though to a less extent, of an individual.

Each tissue has a life of its own, it is developed, reaches maturity, declines and dies. It may be replaced by successive generations of similar tissues, but its power of reproduction becomes weakened, and by slow degrees it may disappear or may become so altered as to be quite unlike what it was at first. By these tissue-changes, functional changes of great importance to the body are brought about. Thus, as age comes on, the blood becomes poorer, respiration is less active, the vital capacity of the chest, that is, the working quantity of air, is diminished; the temperature of the body is slightly increased, so that the aged are more sensitive to cold; the digestive organs are less vigorous; the walls of the arteries become hardened by earthy matter, and lose their elasticity; the veins become dilated, and the circulation is not efficiently performed; the teeth decay, and disappear; the cartilages become calcified and hard; the skin is shrivelled and dry and cutaneous respiration and excretion are less perfect; the hair whitens or falls out; and the stature and weight generally are diminished. By and by, muscular movements are less energetic and less precise, and there is a tottering gait. The cartilages of the larynx ossify, the vocal cords lose their elasticity and the voice becomes a shrill treble.

Then the involuntary muscular tissues are affected, so that the bladder is less powerful and peristaltic action of the stomach and intestines, feeble. The transparent media of the eye become dimmed, the near point of vision is pushed back so that the old become presbyopic or far-sighted, and the power of accommodation is entirely lost; the delicate mechanism of the drum and bones of the ear is impaired and deafness results.

Slowly the intellectual faculties become weakened, the emotions blunted, and the memory by degrees becomes less trustworthy, and at last vanishes. Much of the time is now spent in sleep and unless some intercurrent disease snaps the thread of life, there is a slow ebbing of existence into natural death.

In the first half of man's age, an active life is conducive to longevity, but in the later half a life that is peaceful and uniform is more favourable. However, if the constitution be sound, life may doubtless be prolonged for many years by moderating the passions and by temperance.