

Many men famous in literature and science have lived long lives, thus from 50 to 60 we have Tasso, Virgil, Shakespeare, Dante, Pope, Horace, and Demosthenes; from 60 to 70, Galvani, Aristotle, Milton and Rousseau; from 70 to 80, Dryden, Locke, Swift, Roger, Bacon and Charles Darwin; from 80 to 90, Thomas Carlyle, Plato, Goethe, Franklin, Newton and Voltaire; and from 90 to 100, Sophocles, Michael Angelo and Titian.

Physicians are often long lived as—Haller, Darwin, Jenner and Galen died between 70 and 80 years of age; and Harvey, Pinel and Margagin, between 80 and 90, while the father of medicine, Hippocrates is credited with 109 years.

The question naturally arises, what are the physiological conditions in the human being that determine longevity?

In the first place there is the influence of heredity. Certain peculiarities of tissue, transmitted from parent to offspring, determine whether or not that tissue will remain for a lengthened period of time in a normal condition, or whether it will quickly yield to external influences and degenerate. As the life of the body is really the sum of the lives of its constituent parts, or in other words, of the cellular elements composing it, it is evident that anything affecting the healthy action of these cells, will affect the life of the body as a whole.

So it is that in some individuals the tissues have, what may be termed an hereditary taint, and consequently they readily pass from a normal into an abnormal condition, which, of course, is unfavourable to longevity.

In the next place, even healthy tissues capable of resisting ordinary influences may be unable to resist long continued unfavourable conditions. In the course of time slow changes begin in these tissues, which will in turn affect the organ in which the tissue exists, and that organ by improperly performing its functions will bring about injury to the whole system.

Thus it is that habitually breathing an impure atmosphere, eating improper food, saturating the body with alcohol or with drugs, over-exerting the nervous system by excitement or prolonged brain-work, and sexual excesses, debilitate the body by working slow but sure changes in the tissues, which will inevitably tell upon the longevity of the individual.

But even under the most favourable conditions, there seems to be a limitation to the healthy action of tissues, and old age comes on. Whether this is, or is not, the result of long hereditary transmission, is still a debatable question. However, it is a state of things all flesh is heir to, and if it be hereditary, as is highly probable, there is the