

(at about one year), the fusing of the five segments of the sacrum into one bone and at the same time a similar process takes place between the four segments of the coccyx, thus nine bones of the child are fused into two bones in the adult. This change takes place at about puberty (thirteen to fifteen years of age), but the fusing is protracted until maturity (twenty-five) has been reached. So that, from the Chiropractic standpoint, these vertebrae may be individually adjusted until about puberty and even later. The last normal change that takes place, if it be normal, is the disappearance of the secondary curves in old age, and the reassumption of the original rotundity of the primary curve from the base of the skull to the coccyx, which is due to the flattening of the intervertebral discs which, of course, causes a slight shortening of the spine. This change, if normal, is due to the wear and tear, or years of pressure upon the intervertebral discs, causing them to flatten and get thinner, but it may be brought about prematurely by disease also; in that case, it would not be normal.

**A DIURNAL CHANGE** also takes place in the length of the spine, and that is, that it is shorter at bed-time than it is in the morning; this is due to the weight that is brought on the intervertebral discs during the fifteen or sixteen hours of erect position of wakefulness; but then, during the eight hours of sleep, the rest, in the recumbent position, permits the resiliency of the discs to reassume their former thickness and the spine is thus made about one-quarter of an inch longer in the morning than it is in the evening. It is partly due to this change that certain people complain more of their ailments in the evening than in the morning, because, to some extent, the pressure upon certain impinged nerves, has been increased, yet, of course there are other reasons.

The abnormal changes that may take place in the spine are numerous and all are due to disease or trauma; among them may be mentioned, exostosis, ankylosis, caries (decay of bone, Pott's disease), fractures (breaking of some parts of the vertebrae) and the four different curvatures.

**SUBLUXATIONS** are slight displacements of individual vertebrae short of actual dislocation. It may be a slight gliding of one body over another either in the antero-posterior