

continues. Pregnancy, by necessitating for a period an efficient performance of the thoracic respiratory functions by an involuntary systematic course of breathing exercises, may permanently convert such a girl into a fine, healthy woman, but in many cases, after parturition, the position of thoracic expiration is merely complicated by a loose abdominal wall and the kidneys and other organs descend still further and flop about with greater freedom, seriously and progressively impairing the comfort, health and happiness of the individual.

The next factor in the development of the face to which I will call your attention is the complete eruption of the teeth. We are all very familiar with conditions of incomplete development of both jaws and especially of the upper, due to noneruption or the too early removal of certain teeth. Here the deformity is in no way due to any imperfection in the development of the nasopharynx or in the respiratory capacity, though it frequently co-exists from the causes already described. The treatment of these conditions, so far as they are due to the teeth alone, comes solely within the province of the dental surgeon, who usually finds them very difficult to benefit materially.

The tongue is a mechanical factor of very great importance in the development of the lower jaw. A thorough recognition of this fact is of considerable service in practice, since by encouraging mastication and exercise of the tongue from early infancy by the use of a suitable "comforter," the tongue and the lower jaw can be simultaneously developed, the latter being enlarged and probably strengthened, the durability, texture and size of the teeth being also increased and improved by the process. Later in life the same purpose may be effected by the habitual use of American chewing-gum. In this way character may be given to a face which would otherwise suggest mental feebleness and indecision.

That the lower jaw varies in size with that of the tongue is shown by its excessive growth in those cases in which the tongue is abnormally large. I have been able to stay the growth of the lower jaw by reducing that of the tongue by excising a mesial wedge from its substance. Conditions of the lower jaw due to excessive enlargement of the tongue are by no means uncommon. The simplest form is what in dentistry is called "edge-to-edge bite," in which the lower jaw is sufficiently enlarged that in approximating the jaws the edges of the incisors of the lower jaw impact on those of the upper.

With a greater increase in the size of the jaw the condition called "underhung bite" arises, the edges of the lower incisors passing in front of those of the upper when the mouth is closed.