

muscular tone, but call it what you will it can only be interpreted as the constant exertion of a certain amount of energy due to the continuous activity, in a manner, of the contractile elements composing the muscle. As already stated, the degree of activity varies in different muscles. No one will deny that the sphincter ani practically acts continuously, and that it exerts a greater degree of tension than does the sphincter oris. The length of time which increased or so-called voluntary muscular action may be sustained varies greatly in different muscles, according to habit. For instance, one may sit for hours, reading, totally unconscious of the constant action of the muscles of the body holding him erect, of the muscles of the arm holding the book, and of the eye producing accommodation. Yet some other and less powerful muscular action, to which he was accustomed, would produce fatigue in a very few moments.

The third point in the above statement, namely: "It is equally untrue that the muscles, especially the levator ani, furnish a continuous support," it is evident I likewise dissent from, and in answering the first two, have, at the same time, answered it. My position then is, that the so-called pelvic diaphragm or floor depends for its support absolutely on the practically continuous activity of the intact muscles which enter into its formation, and that the fasciæ are merely adjuncts to the muscles and in themselves entirely inadequate to furnish the support required.

The muscles entering into the formation of the pelvic floor, as has already been remarked, are very imperfectly described in most text-books of anatomy. They may be divided into two layers, an inner and an outer. We will concern ourselves for a few moments with the inner only. This is the layer which enters into the formation of the diaphragma pelvis proprium and is composed of four paired muscles. It is not always easy in the human subject to draw sharp lines of demarcation between some of these muscles at all points, and some knowledge of comparative anatomy is necessary to a clear understanding of them.

Comparative anatomy teaches us that these muscles are the representatives of well-developed, clearly defined muscles which, in the lower animals, are concerned in the movements of the caudal appendage, and which, owing to the loss of the caudal appendage, and the assumption of the erect posture through evolution, have somewhat readjusted their character and attachments to conform to their new function of closing the pelvic outlet and supporting the pelvic contents. These four muscles are called the ischiococcygeus, iliococcygeus, pubococcygeus, and puborectalis.