

Book Report on Fascia

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To my knowledge, only one book has ever been written where the author performed dissections specifically for the examination of the fascia. The text was distributed in 1931 and authored by B.B. Gallaudet.¹ He stated in the preface that from 1913 to 1930 he dissected 34 adult human bodies, equally divided between the sexes. The reason he did this was that fascia was inadequately described in our standard English and American textbooks (which is still true today). The text is only in seven libraries in the United States. Luckily for me, it was in the medical library of the Columbia Presbyterian Hospital in New York City. They would not allow me to remove the book from the room, but they did agree to copy the text for me.

In the preface, Gallaudet explains that the planes of fascia in one region of the body are directly continuous with the same planes in all other regions. None of the anatomy books up to that time recognized the continuity of fascial planes. This sheet of connective tissue "covers and invests the muscles, tendons, bursae, vessels, lymph nodes, nerves, viscera, ligaments, joints, and even cartilage and bones, these last by close adhesion to perichondrium and periosteum between the attachments of the muscles."

I recently treated an acute trochanteric bursitis by taking a light contact superior to the greater trochanter after I palpated a barrier in an inferior direction toward the knee. I held a light superficial contact, waited for the release, and followed it directly over the inflamed area. Post palpation revealed a softening of the tissue over the bursal area and relief of the pain. The tension of the taut bursal sac was released, and the next day, the patient was markedly relieved.

Gallaudet describes two principal "systems" of fascia, the subcutaneous system and the subserous system. While these two systems are distinct from each other, portions of each are directly continuous one with the other. The subcutaneous system has two layers, a superficial layer and a deep layer, which are adherent to each other by interfascial trabeculae. The superficial layer is further divided into its own superficial and deep layer. The superficial layer is the fatty layer of the outer surface of the body. If this layer is thin, it is closely adherent to the deep layer of the superficial fascia.

Between and within these two layers are the superficial arteries; veins; nerves; lymphatic vessels and nodes; some of the bursae; and the mammary gland. The superficial vessels and nerves are branches of deep vessels and nerves which pierce both the deep fascia and deep layer of superficial fascia and eventually reach the skin. The deep layer of the superficial fascia lies immediately over or on top of the deep fascia (the second principal layer of the subcutaneous system) from which it may be distinguished (especially on the head, neck and extremities) by the greater density of the deep fascia.

The second layer of the subcutaneous system is called the deep subcutaneous fascia. It is named according to the region where it is located, such as the deep cervical fascia or deep perineal fascia, etc. This fascia forms a continuous layer all over the body and varies in density according to the region in which it is found. This deep fascia is most dense on the extremities; less so on the head and neck; and even thin on the thorax, abdomen and perineum.

The deep fascia covers all the muscles (except the superficial muscles of the head and neck and the palmaris brevis); all the large blood vessels; all the large nerves; the deep lymphatics; and nodes and certain glands. Besides covering, it also invests these structures. The term invest means that when a layer of this fascia is traced in any direction (e.g., vertically or transversely, etc.) and meets any one of the structures mentioned above, it splits into laminae which surround the structure and then reunites. Finally, a layer of this fascia may meet several superimposed strata of other structures (muscles, viscera, etc.), in which case it splits into as many layers as necessary to invest each stratum.

The subserous fascia is limited to the thoracic and abdominal cavities, and the surface is the serous membrane lining these cavities and enveloping or covering the contents of each.

The November 1998 issue of *Chiropractic Technique* contains my article "Genitofemoral Entrapment Using Integrative Fascial Release (IFR)." It's a case study that demonstrates the intimate relationship of the fascial system to the structure and function of the musculoskeletal and nervous system. If you are interested, fax your address to (203) 852-1443 and I'll send you a copy.

Reference

1. Gallaudet BB. *A Description of the Planes of Fascia of the Human Body*. 1931, New York: Columbia University Press.

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