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Mini Review

Mapping the Connective Tissue System

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Abstract

Fasciae have been one of the most studied systems (Connective Tissue System) in the human body for the last few years. We have several publications and books that have exact descriptions of how the fasciae connect between and through the structures of the human body. The map developed in this article is the first of it is kind and an easier form to start understanding the links that connect our body in different ways. We invite researchers and clinicians to help and improve this map, so the knowledge of fascial system reaches all health care professionals.

Keywords: *Fascia; Connective Tissue; Fascial; Osteopathy; Manual Therapy*

Why know about fascia?

Fascial treatments have been used for a long time and for the last decade it has been the subject of several researches [1-6].

If our body is connected by fascia and it plays a major role in all systems of the organism, all health care professionals should know, it helps to understand pathologies, dysfunctions and to make clinical decisions [7-19].

To deal with connective tissue, the therapist should know (Table 1) the main basis of it [20].

The components of fascia at cellular and extra-cellular levels.	The mechanisms	The roles of fascia at the human body
Fibroblasts, Mast Cells, Adipose Cells, Macrophages; Collagen Fibers, Elastic Fibers, Reticular Fibers; Ground Substance, Proteoglycans, Hyaluronic Acid.	Biotensegrity, Fascintegrity, Thyxotropy, Fascial Plasticity	Movement, Adaptation and Protection, Transmission of Force, Metabolic Role, Hemodynamic Role, Lymphatic Role.

Table 1

Also, the therapist needs to know and understand how the fascial system is connected by layers (superficial and deep) and ligaments. It is a complexity clinical reasoning and there is no article or book, in our knowledge, that links (in an easy understandable way) all the data discovered till today [21-23].

There is much to research and discover in the field. We are just at the beginning of fully understanding the fascial system [24].

The connection of fascial system (connective tissues)

The scope and resilience of fascial system is indeterminable. Also is the resilience and adaptability capacity [25].

Although some authors and researches show that Connective Tissue (Solid Fascia and Liquid Fascia) is linked by layers, there's still the hypothesis of a polyhedral microvacuoles connecting all of our body. The skin, subcutaneous tissue, muscles, tendons, bones, blood and lymphatic veins and all other components of the human organism are connected [13-17,23,25].

When we put clinical reasoning, it makes more sense to think that the body is connected in different depths and a direction, which provides incredible adaptability for force transmission and structural change, than to think that there are specific directions of force transmission through of specific depths.

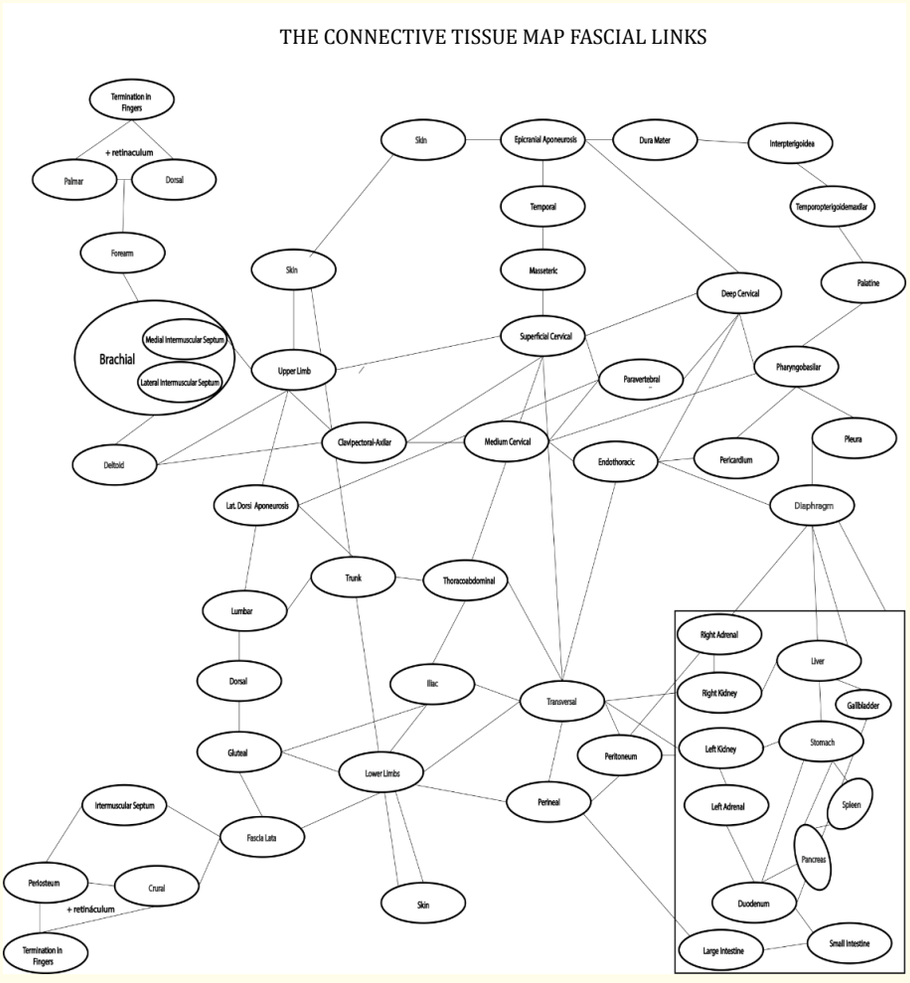
The organs have joints; they are linked by ligaments and fascia (organ-organ, organ-muscular wall). Also, dysfunctions of the organs can cause dysfunctions in all systems [4,21,22,26,27].

This is evidenced by human anatomy atlas books, cadaveric studies and researches.

The development of the map of fascial links

The objective of this article was to create a map that makes these cited connections clear. A search among several scientific bases about connective tissue and fascial links, or articles/books that explained or had some theory about these mentioned links.

There were found 6 books and 26 articles that served to the purpose to understand the links and understand the connections of the Connective Tissue and Fascial System [28-32].



Figure

Conclusion

In an undeniable way, our body is fully connected.

This is not the absolute truth, there is much to discover and to be updated.

This article is an easier form to start understanding the links that connect our body in different ways. We invite researchers and clinicians to help and improve this map, so the knowledge of fascial system reaches all health care professionals. We also suggest the readers of this article to read the references to understand which structures links the fascial system.

Conflict of Interest

There is no conflict of interest between the authors.

Ethical Approval

There was no need for ethical approval.

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