

**ANALYSIS OF MUSCLE TISSUES**

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**Abstract:** Muscle tissues are an imperative part of the human body, assuming a vital part in development, stance, and in general usefulness. The investigation of muscle tissues is fundamental for figuring out their design, capability, and expected anomalies. In this article, we will dive into the different parts of muscle tissue examination, including its significance, techniques, and applications.

**Keywords:** Modern medical diagnoses, clinics, muscle tissues, difficulties, investigations.

**Introduction:** There are three sorts of muscle tissue. "Skeletal muscles are connected to bones and are answerable for body development. Cardiovascular muscle is tracked down in the heart, and smooth muscle is tracked down in the walls of empty instinctive organs, like the stomach, urinary bladder, and respiratory entries" (Marieb and Martini, 1998). This paper intends to characterize every one of these muscle tissues as indicated by these properties. To complete an exact muscle tissue analyzation, it is essential to comprehend and apply the right techniques utilized for tissue readiness. A model would be "muscle tissue fixed in formalin and implanted in paraffin is substantially more fit to histological review than new muscle tissue. This is on the grounds that the formalin fixes the tissue's proteins and the paraffin implanting takes into account daintily cut tissue areas" (J.S. Malamed, 2009).

A comprehension and utilization of the different techniques is urgent to guarantee that the right investigation is done. At last, this paper will likewise stress the significance of a methodical and coherent way to deal with examination of muscle tissue and will involve the order strategy of the three muscle tissues as an illustration to show how discoveries ought to be handed-off in a reasonable and proficient way.

Once more, this will be point by point as far as a dental understudy doing an examination of muscle tissue sores in the head and neck.

**Outline of Muscle Tissues**

The section starts by portraying the likenesses of the muscles, which is critical to affirm that the tissue is muscle, as referenced previously. This permitted me to comprehend that would it be advisable for me I need to recognize muscle tissue, I would need to be searching for the presence of these highlights. This was affirmed while investigating the skeletal muscles further, as referenced in the book, they are referred to as willful muscles as they can be controlled subliminally to deliberately. This is valuable to know while concentrating on sicknesses that influence muscle and while thinking about the method of activity of medication therapies. The depiction of the heading of muscle filaments was clear and straightforward and was vital while thinking about the job of the muscles in development and upkeep of stance. Brief clarifications of the apprehensive and blood supplies of the muscle were straightforward and were valuable for a comprehension of their significance yet were spaces where a more elevated level of detail could have been helpful. An illustration of such was it would have been fascinating to find out about the neuromuscular intersection and the progressions seen in neuromuscular sicknesses. This could be connected to electrophysiological concentrates on which are many times utilized in the finding of these illnesses.

The section named "Histology of Muscle" talks about the likenesses and contrasts between the three sorts of muscle in the body. This section is vital in affirming that the muscle tissue got is, as a matter of fact, muscle, as the presence of smooth, cardiovascular, and skeletal muscle are very unique. This part was very much itemized with a decent utilization of clear language, careful clarifications, and the regular utilization of bulleted records. There were countless connections and cross-references to different regions in the book, making it extremely simple to follow and acquire a decent comprehension of the point.

#### Significance of Muscle Tissue Investigation

Histologic investigation of muscle tissues is significant for the comprehension of typical muscle and for the acknowledgment of explicit pathologic changes in muscle; consequently, it is critical to know the different strategies accessible for the investigation of muscle tissues and what data can be acquired from every technique. The clinician is chiefly intrigued by how a muscle illness can be analyzed and what the pathophysiologic instruments of the infection are. The morphologic indication of a muscle sickness can be shortcoming, squandering, torment or issues. The infection can be an essential sickness of muscle, or the muscle indications might be exuding from a fundamental illness. Likewise, the muscles might be impacted by a cycle inside themselves or they might be optionally engaged with an interaction nearby the muscle, for example muscle can be dependent upon different pathologic occasions. The data that muscle biopsy can give about these different infection states will be examined with an emphasis on how the morphologic examination of muscle tissue can help the clinician.

Morphologic examination of muscle tissues ought to be viewed as a reciprocal examination to different techniques for useful investigation of muscle or foundational examination, to foster a full comprehension of the illness interaction. The sort of examination to be finished on a muscle biopsy example can differ from a straightforward evaluation of fiber type, size and shape alongside the example of myofibrillar plan, to complex immunohistochemical and hereditary investigations.

#### Strategies Utilized in Muscle Tissue Examination

The histological examinations of muscle tissues have involved a wide assortment of strategies, all of which have added to how we might interpret muscle design and capability. An itemized conversation of these techniques is significant to the translation of fine underlying data. Consequently, the accentuation of this part is on the exploratory strategies utilized in the readiness and investigation of muscle tissues, as opposed to itemized depictions of ultrastructure. Just the last data important for direction in deciphering primary information will be introduced. Light microscopy stays a significant apparatus in muscle tissue examination, especially for the investigation of entire muscles and the physiological reactions of muscle filaments in various exploratory circumstances. In the last circumstances, histological strategies and examination are frequently utilized as assistants to physiological investigations. This relationship of design capability actually is an area critical in muscle research. Since the size of muscle filaments and the course of action of connective tissue parts are frequently essential to their utilitarian properties, light microscopy is in many cases the best strategy for study. Lately, histochemistry has assumed an undeniably significant part in the life systems and physiological pathology of skeletal muscle, heart muscle and smooth muscle from various species. This is because of the acknowledgment that each kind of muscle fiber has novel properties as far as compound substance, digestion, contractile and unwinding rates, and protection from weariness.

Cytochemical systems have demonstrated an important method for concentrating on these utilitarian distinctions corresponding to the underlying parts of various muscle fiber types.

Skeletal muscle is appended to bones and its withdrawal makes conceivable velocity, looks, pose, and other deliberate developments of the body. A little less than half of your weight is comprised of skeletal muscle. Skeletal muscles create heat as a result of their compression and consequently partake in warm homeostasis. Shuddering is a compulsory compression of skeletal muscles in light of lower than typical internal heat level. The muscle cell, or myocyte, creates from myoblasts got from the mesoderm. Myocytes and their numbers remain generally consistent over the course of life. Skeletal muscle tissue is organized in packs encompassed by connective tissue. Under the light magnifying instrument, muscle cells seem striated with numerous cores pressed along the films. The striation is because of the customary variation of the contractile proteins actin and myosin, alongside the primary proteins that couple the contractile proteins to connective tissues. The cells are multinucleated because of the combination of the numerous myoblasts that circuit to shape each lengthy muscle fiber.

Cardiovascular muscle shapes the contractile walls of the heart. The cells of cardiovascular muscle, known as cardiomyocytes, likewise seem striated under the magnifying lens. In contrast to skeletal muscle filaments, cardiomyocytes are single cells with a solitary midway found core. A central trait of cardiomyocytes is that they contract on their own inherent cadence without outer excitement. Cardiomyocytes connect to each other with specific cell intersections called intercalated circles. Intercalated circles have both securing intersections and hole intersections. Connected cells structure long, stretching cardiovascular muscle strands that go about as a syncytium, permitting the cells to synchronize their activities. The cardiovascular muscle siphons blood through the body and is under compulsory control.

Smooth muscle tissue withdrawal is answerable for compulsory developments in the inward organs. It shapes the contractile part of the stomach related, urinary, and regenerative frameworks as well as the aviation routes and veins. Every cell is shaft molded with a solitary core and no noticeable striations.

## **Conclusion**

All in all, the examination of muscle tissues is a diverse and irreplaceable part of biomedical exploration and clinical practice. It gives important bits of knowledge into the design, capability, and strength of muscle tissues, and is fundamental for diagnosing and treating different solid problems. With the proceeded with headway of logical methods, muscle tissue examination will without a doubt assume a crucial part in propelling comprehension we might interpret muscle science and working on the administration of muscle-related conditions.

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