

The Knee Ligament Pain Relief Brunch

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ABSTRACT

Today scenario of knee joint muscles pain is quite unbearable for old and middle-aged people, they are facing several pain regarding to knee joints, in medical industries with the help of technology we could solve the problem by using technology of syncytium (hybridization of cells), where fusion of cells could regenerate the ligament muscles cells and pain could be recover in the way of tentative.

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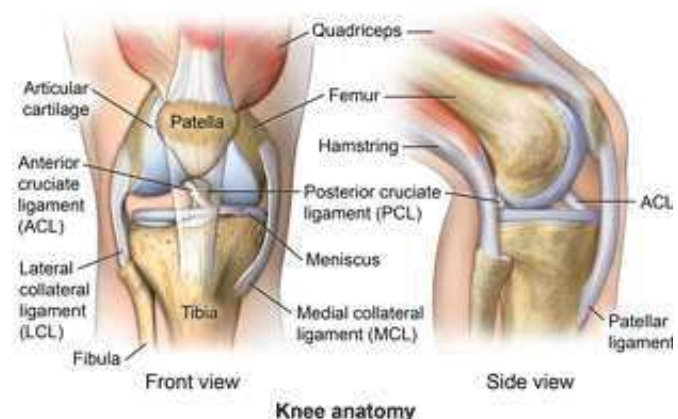


Let's have an overview of related topic for further detailing:

What are knee ligaments?

There are 4 major ligaments in the knee. Ligaments are elastic bands of tissue that connect bones to each other and provide stability and strength to the joint.

The four main ligaments in the knee connect the femur (thighbone) to the tibia (shin bone), and include the following:



➤ **Anterior cruciate ligament (ACL).** The ligament, located in the center of the knee, that controls rotation and forward movement of the tibia (shin bone).

➤ **Posterior cruciate ligament (PCL).** The ligament, located in the back of the knee, that controls backward movement of the tibia (shin bone).

➤ **Medial collateral ligament (MCL).** The ligament that gives stability to the inner knee.

➤ **Lateral collateral ligament (LCL).** The ligament that gives stability to the outer knee.

Snake Skeleton muscles Structure:

➤ Many snakes swallow large prey whole, and this process requires large displacements of the unfused tips of the mandibles and passive stretching of the soft tissues connecting them. Under these conditions, the intermandibular muscles are highly stretched but subsequently recover normal function.

➤ In the highly stretched condition we observed in snakes, sarcomere length (SL) increased 210% its resting value (SL₀), and actin and myosin filaments no longer overlapped. Myofibrils fell out of register and triad alignment was disrupted.

➤ Following passive recovery, SLs returned to 82% SL₀, creating a region of double-overlapping actin filaments. Recovery required recoil of

intracellular titin filaments, elastic cytoskeletal components for realigning myofibrils, and muscle activation. Stretch of whole muscles exceeded that of sarcomeres as a result of extension of folded terminal tendon fibrils, stretching of extracellular elastin and independent slippage of muscle fibers.

- Snake intermandibular muscles thus provide a unique model of how basic components of vertebrate skeletal muscle can be modified to permit extreme extensibility.

Syncytia:

- a single cell or cytoplasmic mass containing several nuclei, formed by fusion of cells or by division of nuclei.

- a structure composed of syncytia, forming the outermost layer of the trophoblast.
- Hybridization of Snake skeleton muscles cells with knee ligament cells could solved knee joint pain.

Conclusion:

Topology of following procedure for syncytium(hybridization of cells), of Snake muscle cells with ligament cells could solve purpose in the way of tentative.

References:

- [1] www.google.com
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