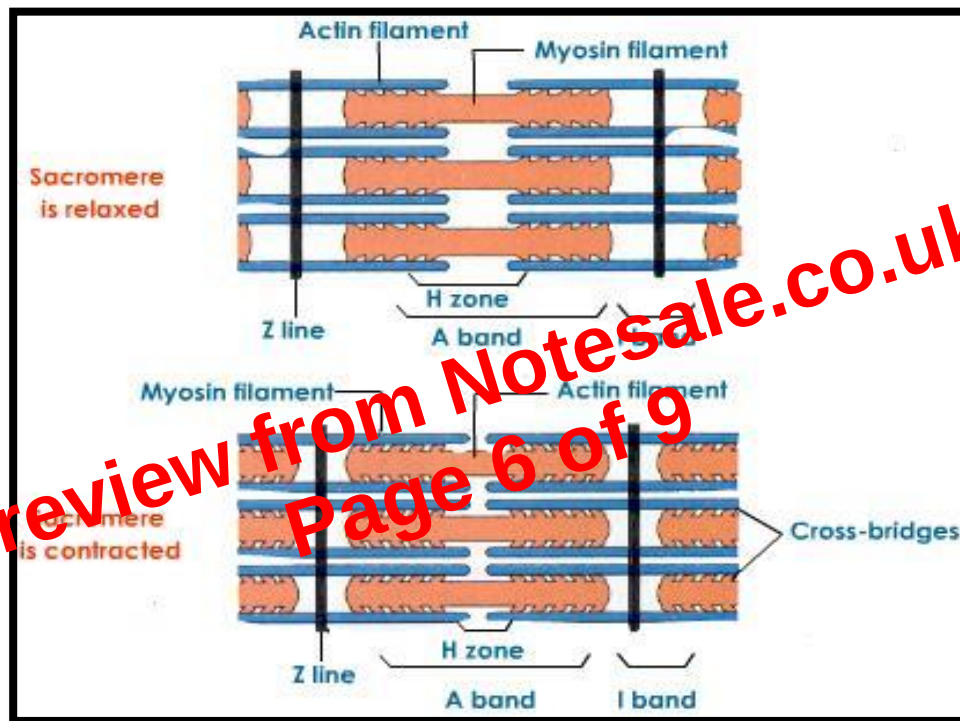


changes in which also the changes in actin and myosin filaments occur. I-bands become less in length whilst the Z-line gets closer.

This theory explained that the actin filaments slide past the myosin filaments so, the thin and thick filaments overlapped in greater degree. In result, Z-lines get closer, the I – bands become shortened as well the H-zone disappears. In this procedure of the contraction of the muscles, the cross bridges of the myosin filaments joined to the binding region of the thin filament. In result, cross bridged contract & pull the thin filament to the middle of the sarcomere.



✚ Controlling actin-myosin interaction via Ca^{++} ions

The nerve impulse starts or initiate the muscle contraction which is reached at the neuromuscular junction. Mostly all the fibers are innervate via the single motor neuron called as the motor unit, as well contract immediately in respond of the action potential that is ejected via the motor neurons. Sarcolemma (plasma membrane of the muscle cell) of the muscle cell pierce deeply into the cell which form an elongated hollow tube that is transverse tubule. Each muscle cell consists of 1000 of transverse tubules which are collectively known as the T-system, that encircles the myofibril at the region of Z-line & the I- junction. Transverse tubules & the terminal region of envelop of the sarcoplasmic reticulum form the triads. Nerve