

FIGURE 10.7 Sliding filament mechanism of muscle contraction. For simplicity, the elastic filaments are not illustrated.

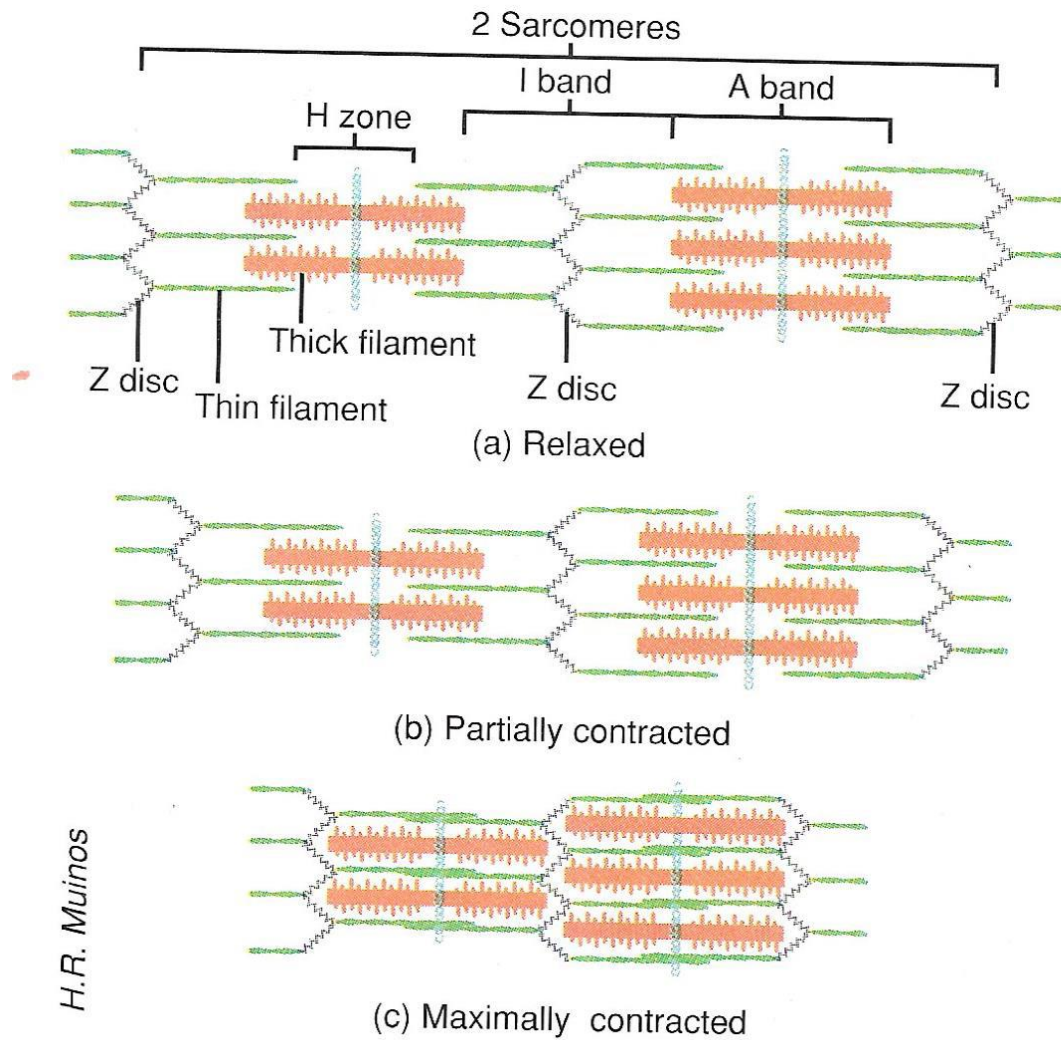


FIGURE 10.8 Regulation of contraction by troponin and tropomyosin when Ca^{2+} level changes. (a) The level of Ca^{2+} in the sarcoplasm is low during relaxation because it is pumped into the sarcoplasmic reticulum (SR) by Ca^{2+} active transport pumps. (b) A muscle action potential traveling along a transverse tubule opens calcium release channels in the SR and Ca^{2+} flows into the sarcoplasm. Note contraction is occurring since the thin filaments are closer in the center of the sarcomere.

