



Figure 3-23. Several physiological and mechanical phenomena produce a rebound that makes for a stronger contraction. First, the viscoelastic nature of muscle makes it act like a spring – the longer you stretch it (up to a certain point), the more forceful the return. Second, there is an optimal sarcomeric length that results in the most force being generated by a contraction, and this optimal length is associated with a mild stretch. Lastly, the stretch reflex mediated by muscle spindles (intrafusal fibers) is activated by stretching and results in a more forceful contraction.