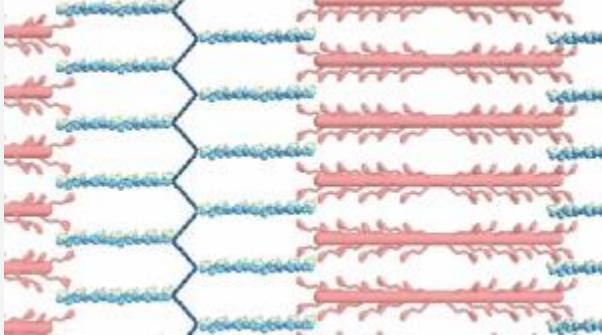


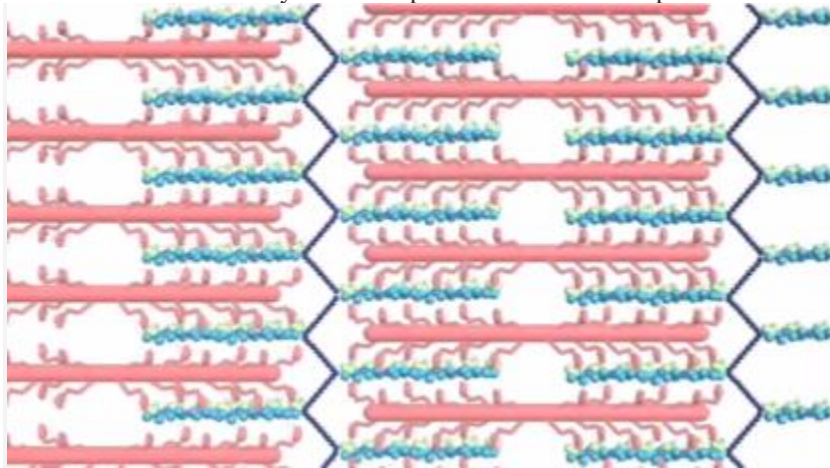
## When short muscles equal weak muscles

Muscles contract using filaments, which latch onto one another.



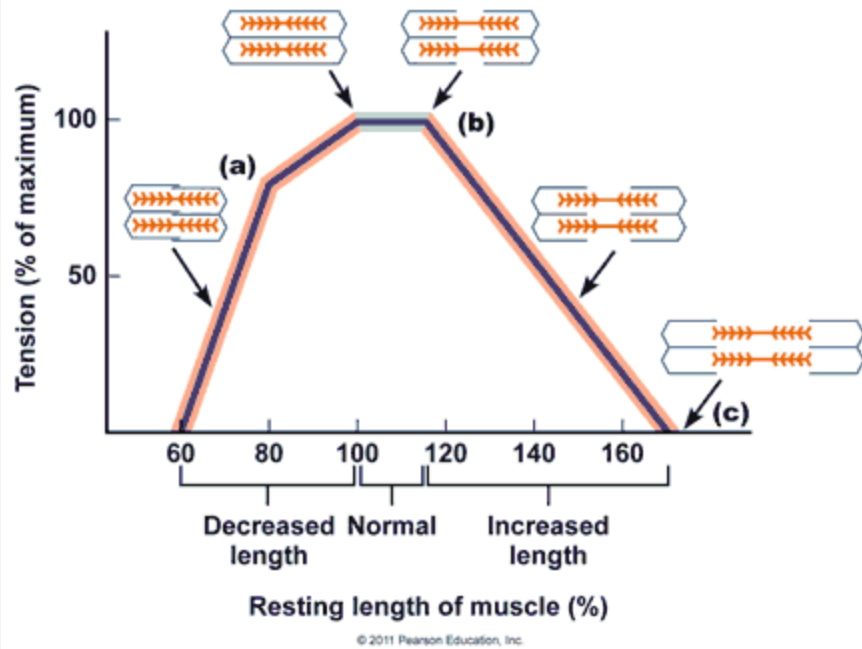
Shorten, shorten, shorten, lengthen. (GIF made from this cool video: <http://www.youtube.com/watch?v=okFmbrRJq4w> )

If these filaments are significantly shortened, they can't as effectively contract. There's nothing left for them to latch onto. They're at this point in the above clip:



No more room to contract.

If they're chronically, excessively shortened, the muscle can't do much, if any, work. It can't produce much, if any, tension (length-tension relationship), leading to atrophy.



We're focusing on the left side of the graph right now.