

# Lecture 14

Wednesday, July 14, 2021

22:28

## Nerves & Neural Rewiring

- Musculature in the back functions at a considerable disadvantage
  - o Produces much more force internally (frequently exceeding a factor of ten) than it generates externally
- Movement and stress of intervertebral discs
  - o Refer to Peg kinesiology notes (reduce spinal compression by shortening abs and lengthening (stretching) back
- Following injury, neural recruitment patterns are commonly reprogrammed, resulting in deviations in gross movement strategies
  - o A sort of PTSD in muscles post-injury
  - o We recruit muscles differently after an injury
- Once you have experienced pain you will
  - 1) Consciously and deliberately and actively avoid activities that cause pain AND
  - 2) Your body will unconsciously and reflexively avoid the activities that cause you pain
- Even in your muscle spindles, these are centrally modulated in the presence of pain