

BIOEN 520 | ME 527

HW #2 Assignment: Upper Extremity

Apply what you've learned through our mini-labs on literature reviews and meeting presentations to prepare a short 3-slide presentation (approx. 3 minutes in length) answering the question you selected in class on the upper extremity. The **slides are due via email on Monday, 2/22/16 by 6 pm**; and you will present your slides during Session 15B.

Elbow

- 1) Describe the functional anatomy of the elbow joint and how is it similar/different from the knee? [\[Brian Cook\]](#)
- 2) How has the force distribution across the elbow joint been measured biomechanically and at what position(s) are they at the maximum? [\[Haijing Hong\]](#)
- 3) What is meant by active stabilization of the elbow joint; what are active and passive stabilizers and why are they important? [\[Mark Goldstein\]](#)
- 4) Describe the carrying angle for the elbow, how does it compare to the "Q" angle for the knee, and why is it different between males and females? [\[Kateri Gilliland\]](#)
- 5) What are common traumatic and overuse injuries to the elbow and how are they treated/repared? [\[Eric Thorhauer\]](#)
- 6) What is "Tommy John" surgery (provide sports context), and what biomechanical factors have been studied towards optimizing the reconstruction? [\[Corey Pew\]](#)

Wrist

- 7) Describe the functional anatomy of the wrist and how is it similar/different from the ankle? [\[Ty Youngblood\]](#)
- 8) What are the ranges of motion of the human wrist and how do they differ from ("knuckle-walking") non-human primates? [\[Michael Rosenberg\]](#)
- 9) What biomechanical studies have been performed to evaluate the forces transmitted across the wrist joint, and how are they distributed between the radius and ulna? [\[Guangcan Lu\]](#)
- 10) What are common traumatic and overuse injuries to the wrist and how are they treated/repared? [\[Vijeth Rai\]](#)