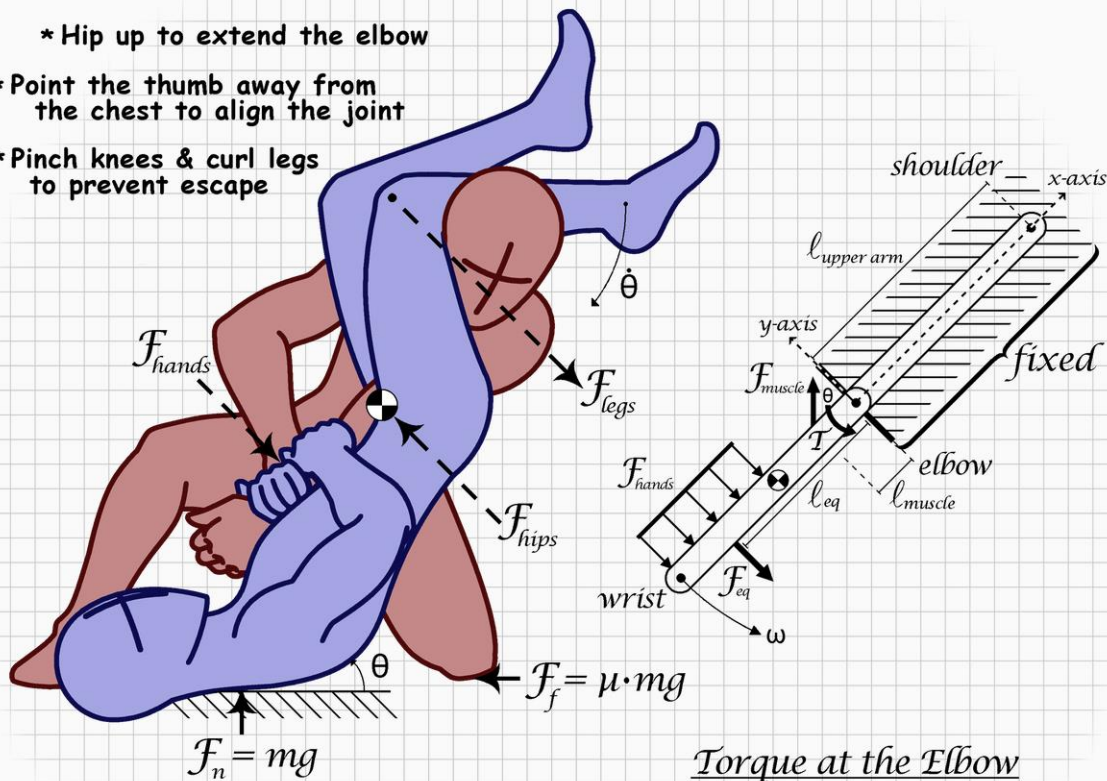


Brazilian Jiu Jitsu and Physics

Inquiry Question: How Does a Brazilian Jiu Jitsu practitioner's understanding of physics (Torque) make him or her more effective?

Anatomy of an ARMBAR

- * Hip up to extend the elbow
- * Point the thumb away from the chest to align the joint
- * Pinch knees & curl legs to prevent escape



Torque at the Elbow

$$T = F_{\perp} \cdot d$$

"Give me a lever and a fulcrum
and I shall move the world."

~Archimedes

Concepts: Torque, Lever, Force, Fulcrum

Assessment: Create a blog post (**Tag: jiujiitsu19**) that uses what you saw answer the fundamental Inquiry Question. Your post should have 3 parts:

1. Introduction (a brief overview of why torque would be used in Brazilian Jiu Jitsu, a framing of the with the question [why we are doing this] and a definition of each of the concepts)
2. Choose 2 of 4 following techniques:
 - a. Take an image of the technique (Kimura, Americana, Kneebar or Armbar)
 - b. Draw on each of the technique image to showing the application of Force, Torque, Fulcrum, etc...
3. Answer the question using what you have learned.

Basic Principles of Brazilian Jiu Jitsu: Why does Jiu Jitsu follow this progression? (Back ground)

1. Get your opponent to the ground



2. Get past your opponent's legs (or attack their legs)



or

3. Control their hips and shoulders (or their legs)



or

4. Add a submission



or

Guard/Top/Side/Back control – Why does Brazilian Jiu Jitsu want control? (Background)

Guard



Top Mount



Side Control



Back Mount



Take Several Images of joint locks – Can you determine the lever, fulcrum, Force (perpendicular) & torque? Use a program to draw all the above items on the image.

- Armbar



Americana



- Kimura



Straight ankle lock



Anatomy of a Choke (Extension)

Take several images of chokes – Can you determine the lever, fulcrum, Force, torque? Use a program to draw all the above items on the image.

- Triangle



- Rear naked



- Guillotine

