

Newton's Law Exercises

1. In terms of inertia, what is the disadvantage of a lightweight camera when snapping the shutter? Why is a massive tripod preferred by most photographers?
2. In tearing a paper towel or plastic bag from a roll, why is a sharp jerk more effective than a slow pull?
3. Each of the chain of bones that form your spine is separated from its neighbors by disks of elastic tissue. What happens then, when you jump heavily on your feet from high up? Can you think of a reason why you are a little taller in the morning than you are at night? (think back to the annotated reading and figure 4.1 of the hammer)
4. Your empty hand is not hurt when it bangs lightly against a wall. Why is it hurt when it bangs lightly while carrying something heavy? Which of Newton's Laws is most applicable here?