Tissue and the healing process review Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What factors determine an injury and the extent of the injury?
2. Name and explain the 4 major forces that can cause an injury to a tissue. Using each force give an example of an exercise/situation/injury when the force would be applied to the body.
	1.
	2.

* 1.
	2.
1. Give an example of a chronic and an acute injury. What is the difference between them?
2. Give two reasons why skin is the tissue most commonly injured.
3. What tissue is stronger – muscle or tendon? What about anatomy of the tissue type makes it stronger?
4. Football players wear pads for protection. Explain why in terms of forces.
5. A member of your high school volleyball team reports localized pain along the fifth metatarsal (sole of foot) that increases after practice sessions. The pain has been present for over a month and is progressively getting worse. What injury should be suspected? What implications does this injury have for the volleyball player’s continued training?
6. During her junior year, a high school softball player dislocates her should while sliding into second base. During the offseason, she follows a workout program designed to strengthen the muscles that govern the joint. Even with the offseason workouts, is she susceptible to another dislocation? Explain why or why not.

**Healing**

1. You are a football coach and one of your athletes has suffered a spiral fracture on his tibia. After being casted he is curious about how the fracture is healing internally so he begins to question your wealth of knowledge from sports medicine class. What do you tell him?
2. Explain what happens during the inflammatory phase, proliferative phase and the maturation phase of soft tissue healing.
3. Why is it important for a coach, physical educator and/or fitness specialist to understand how the healing process occurs?
4. What is the role of the osteoblasts and osteoclasts during healing of bone tissue?
5. What is angiogenesis?
6. Why is angiogenesis an important step to healing?
7. What are some factors that can slow down the healing process?
8. You are a fitness specialist. A 35 year old client comes to a training session having sustained a grade II hamstring strain. He is very inquisitive and asks you to explain what is currently taking place and will continue to take place at the injured site. How would you explain the healing process to your client in a manner that is likely to make sense to him?