

## Dr. Jensen's Hot Dog Horror Story

Dr. Jensen spent a busy morning teaching exercise physiology on an empty stomach. All morning he was salivating thinking about the Tuesday hot dog stand stationed at the opposite side of campus. Once his final morning lecture ended, Dr. Jensen bolted across campus to catch the stand before it closed down. He was so concerned about buying lunch that he forgot to wear shoes. Not sure why, but it's the truth. During his trek, Dr. Jensen stepped on a suspiciously placed obsidian arrow head and ruptured his plantar fascia. He immediately fell to the ground, avoiding injury to his face, and assessed the bottom of his foot.

Based on the clinical signs of redness (increased blood flow), pain (nociceptors), heat (metabolic demand) and swelling (protein leakage), he was able to self-diagnose an injury. Due to Dr. Jensen's surplus of knowledge, he began to tell a nearby student how his foot is initiating tissue remodeling. This is what he said:

"Hi, there! Check this out! Look at my foot! I strained my plantar fascia. My body is initiating the inflammatory response by decreasing collagen synthesis and increasing inflammatory cells, such as lymphocytes, neutrophils and more! In order to stop my foot from bleeding my blood must clot from the help of platelets and fibrinogen. Then, my cells will begin attacked the exposed bacteria with phagocytes, lysozomes, antibodies and mast cells. Once I get to the repair process my body will initial collagen III production and inflammatory cells will begin to decrease. Until then I will have to stay off my foot to give it time to repair! Once I reach this stage, I'll slowly start walking on it again to prevent atrophy and maintain my stellar muscular function. Lastly, my plantar fascia will begin remodeling with collagen I and begin to increase tissue strength. Then I'll be able to run to the hot dog stand next Tuesday."

Little did Dr. Jensen know, the weekly hot dog stand permanently closed due to a decline of sales during COVID-19.