Negative Effects of Smoking

It is well known and documented that smoking tobacco, as well as smokeless tobacco, can have many negative effects on our bodies and overall health. There are effects on the lungs, heart, vascular system, as well as many cancers to various organ systems. Another side effect, which is especially important in our realm of health care in orthopaedics, are the effects smoking has on our bones and joints.

Smoking affects our bones' ability to stay strong as well as heal from fractures through several mechanisms. The nicotine found in many forms of tobacco decreases blood flow to the site of injury, which decreases the speed and quality of healing. In addition, nicotine inhibits the ability of our bone building cells, osteoblasts, to create bone. This makes the bones of smokers weaker compared to non-smokers and puts smokers at a higher risk of osteoporosis, which can lead to very serious and debilitating fractures. This same effect also decreases the ability of bones to heal from fractures and may lead to fracture nonunion, which could require surgery that would otherwise be unnecessary. Smoking also blocks some of the absorption of calcium in our intestines as well as the effects of some hormones that are needed to keep bones strong. Joints and tendons in the body are also susceptible to the effects of smoking. It can decrease tendon quality leading to overuse injuries such as rotator cuff tendonitis and tears, and low back strains. In fact, smokers are 1.5 times more likely to suffer from all types of tendinitis and bursitis. Lastly, smoking can lead to complications after surgery, such as poor wound healing and recovery from surgical repairs.

For more information about the health effects from smoking and tips for quitting, visit https://smokefree.gov/