



SMOKING & INJURY RISK

BY WRNW



Smoking is not good for us. This should come as no surprise. Science has taught us many things about smoking tobacco, none of which are beneficial to our health. In fact, tobacco use is the **single largest preventable cause of disease and premature death** in the United States. The part of that last sentence we love? Preventable! Prevention is our middle name so this topic is close to our ♥!

What else does smoking pose a higher risk for? **INJURY.** **Multiple studies** show pretty clearly smoking is associated with a significantly higher risk of musculoskeletal (joints, muscles, tendons) injury compared to not smoking.



THE DETAILS:

- Smoking is associated with a 20-30% higher injury risk than non-smokers
- Higher aerobic and muscular fitness is not protective against injury between those more fit among smokers compared to non-smokers
- Higher fitness is protective against injury in non-smokers



EFFECTS OF SMOKING:

- **LESS ENDURANCE**
- **POOR PHYSICAL PERFORMANCE**
- **INCREASED RATE OF INJURY**

Let's break it down. When tobacco smoke is inhaled, it goes into our lungs. Our lungs are what transport oxygen into our bloodstream (what our muscles need for fuel), and transport carbon dioxide out of our body. The inhaled tobacco smoke binds to our blood cells instead of oxygen effectively kicking oxygen to the curb and transporting harmful chemicals to our muscles instead. Without the levels of oxygen needed, muscles fatigue faster and have less ability to work as hard or get stronger.

Additionally, it takes a toll on our hearts. Your heart gets the message that more oxygen is needed (because it didn't get the oxygen due to its tobacco smoke competition) and it begins to work harder. The more our heart "pumps" and the faster our heart "pumps" the more blood rotates itself through our body. When we work harder, this is necessary. However, with tobacco use, the heart never gets a break. ALL our muscles need a break and the heart is no different.



This is important for the industrial athlete because smoking affects much more than a gym routine. It affects EVERY physical movement we do from walking up stairs to moving equipment.

What else is directly associated with injury risk for those who use tobacco?

DISTURBED SLEEP PATTERNS

Sleep is essential for healing and recuperating from the day.

INCREASED HEALING TIME

Adequate blood flow is necessary for tissues to heal. When our blood cells have tobacco smoke as competition for nutrients, healing takes longer.

SHORTNESS OF BREATH

Tobacco smoke decreases oxygen in our blood for muscles, so the heart pumps harder. We begin to breathe faster on mundane tasks.

LOWER MUSCULAR STRENGTH

Tobacco smoke competes with oxygen so the muscles can never work hard enough with strength training compared to non-tobacco users.

BOTTOM LINE

For those beginning any new strenuous activity, **smoking is a preventable risk factor** for overuse musculoskeletal injury and healing of injury.



Ready to quit smoking? Check out [this resource](#) or ask your HR department if they have further information or potential company benefits in place to help you quit.

Work Right NW is changing the way that companies view workplace hazards. Our focus is on educating the workforce to prevent injury. We provide access to Injury Prevention Specialist's in the workplace to address the early signs of discomfort. We are changing the industry one company at a time by helping one person at a time.

