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# CIGARETTES CAN DELAY BONE HEALING AND FRACTURE REPAIR

Smoking cigarettes has long been known to have detrimental effects on the body contributing to problems such as heart disease and lung cancer. Research has also shown that smoking cigarettes has significant effects on the bones that make up your skeleton.

## What evidence shows this effect?

Multiple studies have shown a significant difference in the healing time of bone between groups of smokers and non-smokers. For example, a study from Northwestern University Medical School in Chicago, Illinois was performed on 54 patients who were surgically treated for a specific wrist injury. Of these patients, 95% of the non-smokers healed completely, while on 68% of the smokers healed completely.

The average time until complete healing was over two months longer in the smokers. Numerous other studies on patients with different injuries have shown a similar effect.

## Why are bones affected by smoking?

Bones are nourished by blood much like the other organs and tissues in your body. Nutrients, minerals and oxygen are all supplied to the bones via the blood stream. Smoking elevates the levels of nicotine in your blood and this causes the blood vessels to constrict. Nicotine constricts blood vessels, approximately 25% of their normal diameter. Because of the constriction of the vessels, decreased levels of nutrients are supplied to the bones. It is thought that this is the reason for the effect on bone healing.

## What does all this mean?

The effect of smoking on your health is well known to have a significant negative impact. While the effect of bone healing may not seem as important as other effects, ask anyone who is waiting for their skeleton to mend and they will tell you how important bone health can be. If you sustain an injury to our bone, including any thype of fracture, it is of utmost importance that you do not smoke. Do ing so will decrease your chances of recovering completely, lengthen the time you spend healing, and make it less likely that you will be satisfied with your outcome.



