

## **Smoking and foot surgery**

Smoking increases the risk of an adverse outcome in surgery. The oxygen carrying capacity of blood is lower in smokers and therefore less oxygen is available to operative site. Additionally nicotine causes shrinkage of the small blood vessels throughout the body and, at the operative site, further reducing the amount of oxygen reaching the operative site. The foot is not as well supplied with blood vessels as other parts of the body and is particularly sensitive to anything which reduces the blood supply. A good blood supply to carry nutrients and oxygen to the operative wound is essential. Any factor which reduces the blood supply will compromise healing. Additionally the chemical in cigarettes can have a direct toxic (poisonous) effect on the cells which are necessary for healing of the bones, soft tissues and wounds. For an osteotomy (breaking and realigning of bones), and fusion (removal of worn joint and permanent stiffening of the joint) to be successful bone cells must be able to produce bone which then leads to union (joining of the cut or prepared bone surfaces). These bone cells are affected by chemicals in cigarettes, in particular nicotine.

If the bones fail to heal, the procedure may need to be repeated. Bones cells from elsewhere may need to be used to help the local bones to knit together. This is known as bone graft and can be harvested from different parts of your skeleton (top & bottom of your shin bone, iliac crest – the ridge of bone upon which you trousers / belt rests); this adds further complexity to your operation. The worst case scenario is a smoker with a poor blood supply needing foot surgery. There have been reports of poor healing and infection resistant to treatment resulting ultimately in amputation of the leg. This is a rare occurrence but the risk is higher in patients who smoke.

Please consult your general practitioner for help to stop smoking.

### **References:**

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