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Worldwide, more than 2 million people were diagnosed with lung cancer in 2018 and smoking cigarettes is the biggest cause. But did you know that smoking can harm most organs in the body, with nicotine even being detected in toenails? Helen Cowan interviews smoking expert Dr Graham Cope, Honorary Senior Research Fellow at the University of Birmingham and author of 'Smoking – what all healthcare professionals need to know'.

What's in a cigarette?

When a cigarette burns, it releases thousands of chemicals including more than seventy which may cause cancer [6]. Most are in the tar part of the smoke, which is why tar is considered the most harmful part of a cigarette (and why manufacturers now produce low-tar cigarettes or 'lites').

Also harmful are carbon monoxide, which reduces the amount of oxygen in your blood, and nicotine, which, in the short term can improve mood and concentration, but can also cause addiction.

Effects on the brain

Think smoking can calm your nerves? Think again. Smoking is actually associated with increased anxiety and depression; stopping smoking [7] can be good for your mental health.

Smoking also reduces blood flow, and so oxygen supply, in the brain by narrowing blood vessels; the two most common forms of dementia, Alzheimer's and vascular dementia have both been linked to problems with the vascular system.

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Interestingly though, smokers are thought to be at lower risk of Parkinson's disease, perhaps because nicotine stimulates dopamine production in the brain, and this is lacking in patients with Parkinson's.

Smoking can also raise blood pressure in the brain, increasing your chances of developing an aneurysm (a bulge in a blood vessel which can burst, causing a type of stroke). Smoking can double, or even quadruple, your risk of having a stroke [8].

Effects on the heart

Smoking can damage blood vessels that supply oxygen to the heart; angina and even a heart attack can result as the heart muscle begins to die. Smokers have twice the risk of having a heart attack; quitting smoking is the most effective way to reduce your risk.

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The chemicals in smoke can also damage the heart muscle itself, causing inflammation and making it less efficient at pumping; heart failure [9] can result.

In patients undergoing heart bypass [10] surgery, smoking prior to and after surgery can increase the risk of post-operative complications such as infection, slow wound healing and rejection of the bypass graft.

Effects on the mouth

Beware bad breath, bleeding gums, oral thrush, inflammation of the gums and tooth loss if you smoke.

Mouth cancer is also more common in smokers and can often be detected during a dental check-up, when the gums and tongue are examined; self-examination is also important.

Cancers of the nose and sinus, upper throat and larynx (voice box) can be triggered as smoke is inhaled. Aside from the head and neck, it's sobering to note that smoking also increases the risk of cancer [11] of the oesophagus, liver, pancreas, stomach, kidney, bowel, ovary, bladder, cervix and some types of leukemia.

Effects on fertility

Smoking damages sperm, reducing sperm count and their swimming ability. Smoking can also cause erectile dysfunction, perhaps by damaging the blood vessels in the penis, reducing blood supply.

In women, smoking may affect everything from ovulation to implantation; miscarriage is also more common.

Birth defects, premature birth and breathing problems in the baby – and even in the *grandchildren* - may also result from smoking: in one study, grandmothers' smoking [12] during pregnancy was associated with a higher risk of asthma in grandchildren, irrespective of whether the mother smoked or had asthma. That smoking might cause second-generation side effects is serious.

Undoing the damage

About 10 million British adults smoke on a daily basis: that's about 22% of the adult male population and 19% of women. Worldwide, 1 billion adults currently smoke cigarettes. The good news is that quitting smoking brings real health benefits [13]. Within 20 minutes, your blood pressure drops; after one year, your risk of heart disease is halved and after ten years, your risk of lung cancer drops to about half that of a smoker.

Stop smoking; start repairing.

Source URL:https://www.helencowan.co.uk/lesser-known-harms-smoking

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