

Smoking and Cancer: Correlation or cause?

Over the past 50 years the link and correlation between smoking and cancer has significantly increased with it being accepted worldwide after developments in the harmfulness of the chemicals in cigarettes on human body cells particularly in the human gas-exchange system; the lungs. Smoking is addictive due to a very powerful drug known as nicotine which has a huge danger on human life due the ability of chemicals in cigarette smoke being able enter our blood stream and therefore affect the whole body.

Smoking has been linked to a range of types of cancer including cancer of the lung, larynx, oesophagus, mouth and pharynx, bladder, pancreas, kidney, liver, stomach, bowel, cervix, ovary, nose and sinus as well as some types of leukaemia. The most common forms of cancer caused by smoking include lung cancer, with smoking causing more than 4 in 5 cases of lung cancer, which is the uncontrolled growth of abnormal cells that start off in one or both lungs in the cells that line the air passages. The abnormal cells divide rapidly and form tumours. The second biggest cancer caused by smoking is cancer of throat which is a disease in which cancer cells grow in an abnormal way in the throat. However, throat cancer includes the cancer of the larynx, upper mouth and oesophagus. Some other cancers include bladder cancer which begins most often in the cells that line the inside of the bladder, bowel cancer which is a malignant growth that develops usually in the lining of the large bowel, pancreatic cancer that is a disease in which malignant cells form in the tissues of the pancreas.

The risks of smoking were first investigated after a man called Alfred McTear who dies in 1952 due to lung cancer who, during his last days, tried to sue Imperial Tobacco for half a million arguing that he was unaware of the risks of smoking. However, it was in fact a man known as Doll, one of the world's most prestigious epidemiologists, who warned in a 1950 study that smoking was a major cause of lung cancer. He outlined at the end of his findings that it was time to stop blaming the addicted smokers but the tobacco companies that actively promote their products.

In 1953, one experiment using animal testing which really caught the eye of Governments and Tobacco companies which showing that tumours could be generated by painting cigarette smoke tars onto the shaved backs of mice. This backed up by the Surgeon General which released a landmark study in 1964 that linked tobacco with potentially fatal health risks, such as heart disease and lung cancer. For many years Tobacco companies dodged the bullet and piled money into campaigns of assurance that smoking had no relation to cancer and tried to deny and distract the public from the cancer-smoking link. Tobacco companies would publish their own findings for decades, employing their own scientists to manufacture a debate. However, after several research projects into the health risks associated with smoking in 2012 tobacco companies were ordered to admit deception with regards to the health risks of smoking.

Around the year of 2000, the government made it law for tobacco companies to have a message saying that there are health risks associated with smoking such as cigarette Smoking may be harmful to health however after a few years the UK Government felt it was not a strong enough message and ordered companies to have a more harsh message and pictures of the impacts on the lungs including excessive cigarette smoking is associated with an increased risk of death from lung cancer.

The chemicals in cigarettes which have been linked to causing cancer which are also known as carcinogens. The main way that smoking causes cancer is by damaging our DNA, including key genes that protect us against cancer. Many of the chemicals found in cigarettes have been shown to cause DNA damage including benzene, polonium-210, benzo pyrene and nitrosamines. Furthermore,