Victor Reznikov 04.09.14 Miss Aitken Biology The effects of smoking on the lungs

There are a lot of lung diseases caused by smoking cigarettes such as Emphysema, Lung cancer, bronchitis and harmless of carbon monoxide.

Emphysema kills about 20 000 people in Britain every year. Smoke damages the walls of alveoli, which break down and fuse together again forming enlarged, air spaces. It causes shortness of breath and blood of a person carries less oxygen.<sup>1</sup> "The NHS says around 900,000 people in the UK have been diagnosed with COPD, and about two million people have the condition, but have not been diagnosed."<sup>2</sup> There is no cure for Emphysema, so victim dies after long illness.

The lung cancer is also very dangerous disease. Cigarettes contain at least 17 chemicals that are known to cause cancer. Cancer characterized by uncontrolled cell growth in tissues producing tumors. About 90% of cases due to the long-term exposure to tobacco smoke. Other 10% of people get cancer who had a combination of genetic factors and exposure to radon gas.

Bronchitis is a common infection causing inflammation and irritation to the main airways of the lungs. About 90% of cases of bronchitis are caused by viruses. However, these 10% if you continue smoking, the damage to these cilia prevent them from functioning properly, thus increasing your chances of developing chronic bronchitis.<sup>3</sup>

The one of the most dangerous chemicals in cigarettes is carbon monoxide. CO quickly binds with hemoglobin in red blood cells in the lungs, creating COHb. This can allect the amount of hemoglobin available for the transport of oxygen throughout the body which analy in turn lead to symptoms of CO poisoning.<sup>4</sup>

<sup>&</sup>lt;sup>1</sup> Student book Edexcel international GCSE

 $<sup>^{2}</sup>$  ^NHS^

<sup>&</sup>lt;sup>3</sup> Web md http://www.webmd.boots.com/cold-and-flu/cold-guide/understanding-bronchitis-symptoms

<sup>&</sup>lt;sup>4</sup> http://www.healthline.com/health-blogs/freedom-smoking/carbon-monoxide-cigarette-smoke