

Press release: Poisons from cigarettes reach major body organs in seconds

Public Health England (PHE) releases a new TV advert highlighting the dangers of tar in cigarettes, as England's 7 million smokers are urged to make a quit attempt with help from Smokefree this New Year. The latest campaign shows how poisons from tar in cigarettes enter the bloodstream, spreading around the body within seconds and causing damage to major organs.

To help explain the ongoing internal harm being caused, a group of 7 lifelong smokers – including TV presenter and entrepreneur Hilary Devey – declare their intention to quit in January after seeing the results of a lab demonstration. The test results show how their smoking has led to elevated levels of cadmium (a metal used in batteries), cancer-causing nitrosamines and carbon monoxide in their blood. These toxic substances are amongst over 4,000 chemicals released into the body with each cigarette smoked, including more than 70 known cancer-causing compounds.

Elevated levels of these substances were seen in the participants' blood and can lead to an increased risk of major damage to the body.

Exposure to cadmium for a long period of time is associated with an increased risk of damage to the kidneys and bones and may lead to lung cancer. Research has shown that if you regularly smoke 20 or more cigarettes a day, you are twice as likely to develop kidney cancer compared with a non-smoker.

Tobacco-specific nitrosamines (TSNAs) are potent chemical compounds, many of which are carcinogenic (cancer-causing). They can cause DNA damage, cell death and are associated with cancers of the pancreas, mouth, respiratory and digestive tracts.

Carbon monoxide decreases the ability of the blood to carry oxygen and consequently puts a strain on the heart. Carbon monoxide is also associated with an increased risk of blood clots and coronary heart disease.

In the new film that supports the TV advert, Dr Dawn Harper, GP from Gloucester, explains the results of the tests to the smokers and how the quality of their blood would start to improve when they quit – ridding them of harmful poisons which cause major damage to the body. Dr Harper advises the smokers that there are many ways to quit, including free proven support from [NHS Smokefree](#). People can choose what works best for them: face-to-face help, stop smoking aids, a quitting app, email, social media, and SMS support.

Professor John Newton, Director of Health Improvement at Public Health England says:

Smoking is a deadly habit. Each year it kills 79,000 people in England and for every death, another 20 smokers have a smoking-

related disease. That means one person is admitted to hospital every minute of every day due to smoking.

Our new TV ad shows how every cigarette sends a flood of poisonous chemicals through the bloodstream in seconds. People know that tar damages the lungs, but it's less well understood that the poisons also reach the other major organs in the body. We are urging every smoker to take advantage of the free Smokefree support and quit for good this New Year.

Dr Dawn Harper, GP and medical journalist says:

I see the damaging effects of smoking in my surgery almost every day. Tar from cigarettes causes damage to major organs, the bones and increases your risk of a range of cancers and diseases. But, the good news is that no matter how long you've smoked, quitting can reduce your chances of developing cancer, heart and lung disease and other serious smoking related illnesses. Some of the benefits are almost immediate, with improved energy and breathing within a matter of days.

I know how difficult it is to stop but the important thing is to commit to trying again, no matter how many times you might have tried and failed in the past – it's never too late.

Hilary Devey, TV presenter, entrepreneur and lifelong smoker says:

I've smoked at least 20-a-day for over 40 years. Like many, I've been hooked on cigarettes and ignoring the damage – even though I know the harm I'm doing, I've found it extremely difficult to quit for good. Even a stroke 3 years ago only led me to stop temporarily.

Seeing the high levels of poisonous chemicals in my blood from these tests really hit home how dangerous continuing to smoke is – and for that reason, I'm done!

I'm absolutely determined to try again this New Year and I hope other smokers across the country will join me making full use of all the free help available at Smokefree – this time next year we could be celebrating one year smoke-free and feeling the benefits.

Smokefree provides motivation, information and support for smokers who want to stop. Just search 'Smokefree' for free support and advice to help you quit smoking.

1. To find out more about the range of free support and tools available to help people quit smoking, please search 'NHS Smokefree' online.

2. Download all [Smokefree films and images](#).
3. Carbon Monoxide, one of the toxic substances identified at elevated levels in the lab demonstration, is not contained in tar but is one of the most harmful elements in tobacco smoke.
4. [PHE](#) exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-leading science, knowledge and intelligence, advocacy, partnerships and providing specialist public health services. We are an executive agency of the Department of Health, and are a distinct organisation with operational autonomy to advise and support government, local authorities and the NHS in a professionally independent manner. Follow us on Twitter: [@PHE_uk](#) and Facebook: www.facebook.com/PublicHealthEngland.