

# UNDERSTANDING SMOKING AND STROKE.



Stroke happens either when the blood supply to part of your brain is cut off because of a blood clot, or when a brain artery ruptures and leads to a haemorrhage. Stroke is a leading cause of death and disability worldwide, but most strokes can be prevented by addressing a small number of key risk factors.

Smoking tobacco increases your risk of having a stroke. Someone who smokes 20 cigarettes a day is six times more likely to have a stroke compared to a non-smoker. If you are a smoker, quitting will reduce your risk of stroke and a range of other diseases. If you live with a non-smoker, quitting will reduce their stroke risk too.

## WHY DOES SMOKING INCREASE STROKE RISK?

Tobacco smoke contains thousands of harmful chemicals which are transferred from your lungs into your bloodstream. These chemicals change and damage cells and affect how your body works. These changes affect your circulatory system and increase your risk of stroke.

Smoking can affect your body's cholesterol levels, it reduces the levels of 'good' HDL cholesterol and increases the levels of 'bad' LDL cholesterol. Higher levels of LDL cholesterol increase your risk of stroke.

Smoke from cigarettes contains carbon monoxide and nicotine. Carbon monoxide reduces the amount of oxygen in your blood while nicotine makes your heart beat faster, raising your blood pressure. Half of all strokes are linked to elevated blood pressure. The chemicals in tobacco smoke also make your blood more prone to clotting.

Together these effects of smoking increase your risk of developing atherosclerosis (also known as hardening of the arteries). People with atherosclerosis have narrower, less flexible arteries which reduce the blood flow, contribute to higher blood pressure and increase the likelihood of blood clots. Blood clots that travel to the brain stop blood and cause brain cells to die.

## PASSIVE SMOKING AND STROKE

Breathing in someone else's tobacco smoke increases your risk of stroke, non-smokers who live with smokers are almost twice as likely to have a stroke than those whose partners didn't smoke. Smoke free homes and workplaces reduce the risk of stroke.

## IS IT WORTH QUITTING?

Even if you are a long-term smoker, quitting will reduce your risk of stroke almost immediately. Within 8 hours of quitting, your blood oxygen levels will improve and carbon monoxide and nicotine levels in your body will go down by more than half. After 2-12 weeks, your circulatory system will start to improve, after two years your risk will reduce significantly and after five years your risk is the same as non-smokers.



## HELP TO QUIT

Nicotine is a highly addictive substance and can be hard to quit. Smoking also becomes a habit that people can find hard to stop. You might have to try many times to quit before you manage to kick the habit, but getting specialist help to quit makes it four times more likely that you will kick the habit. Because smoking is so harmful to public health, many governments and agencies have put in place programs to support people who want to quit. Some of these provide access to personal support, online tools and nicotine replacement therapy. If you want to stop, talk to a doctor or pharmacist about local programs or look online for services that might be available to help you quit.

## E-CIGARETTES AND 'VAPING'

Devices which provide nicotine without the toxins found in tobacco smoke have increased in popularity in recent years. These are less harmful than smoking tobacco but are not without risk. If you have tried other ways of quitting without success, e-cigarettes or vaping devices could help you to reduce your risk of stroke.

1 in 4 people are at risk of stroke in their lifetime, but by taking simple steps almost all strokes can be prevented. For more information on stroke risks and prevention visit [www.worldstrokecampaign.org](http://www.worldstrokecampaign.org)

This information was developed by:



With support from:



Bristol-Myers Squibb



AMGEN



Boehringer Ingelheim