



# Smoking and Dementia



**Being Dementia Aware**

## Contents

Introduction	p1
What is dementia?	p2
Smoking and dementia	p3
The other health risks of smoking	p5
Stopping smoking	p7
The benefits of stopping smoking	p9
Useful contacts	p11

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Age Scotland's Early Stage Dementia Project is funded by the Life Changes Trust to support the charity in raising awareness of early stage dementia and promoting the impact healthy active ageing can have on reducing the risk of dementia.

**[www.agescotland.org.uk/earlystagedementia](http://www.agescotland.org.uk/earlystagedementia)**

Ash Scotland is Scotland's independent charity taking action to reduce the harm caused by tobacco use.

**[www.ashscotland.org.uk](http://www.ashscotland.org.uk)**

## **Introduction**

Dementia is a set of symptoms associated with an ongoing decline of the brain and its abilities. This can include problems with memory loss, thinking, mental agility, language and understanding. Dementia is common – around 90,000 people in Scotland have the condition - and the risk of it developing increases as you get older. Research has identified a number of risk factors that are associated with the development of dementia. Some of these, like age or genetics, can't be changed; however there are others, such as smoking, which we may be able to change, which could help lower the risk of getting dementia.

Many of the risk factors for dementia are also risk factors for other medical conditions such as heart disease and cancer, so making small changes in your lifestyle can help protect you from a variety of health issues.

This leaflet looks at smoking as a risk factor for dementia, as well as the other harmful effects smoking can have.

## What is dementia?

Dementia is a set of symptoms caused by damage to the brain from certain diseases or conditions. Currently, there is no cure for dementia and once a person has it, it gets progressively worse. There are many different types of dementia although some are more common than others.

The most common types of dementia are:

- **Alzheimer's disease** is the most common cause of dementia, accounting for around two thirds of cases.
- **Vascular dementia** is the second most common cause of dementia. It occurs when the blood supply to the brain is impaired.
- **Dementia with Lewy Bodies** accounts for around 10% of cases of dementia. Lewy bodies are tiny deposits of protein that can build up in the cells of the brain and are associated with damage and loss of function.
- **Frontotemporal dementia** is a less common type of dementia. Frontotemporal dementia is caused when nerve cells in the frontal and/or temporal lobes of the brain die, and the pathways that connect the lobes change.
- **Mixed dementia** occurs when people develop more than one form of dementia, such as both Alzheimer's disease and vascular dementia.



## ***Smoking and dementia***

Most people are aware of the damage smoking does to the lungs and that smoking can increase the risk of developing cancer. You might be surprised to hear that evidence suggests heavy smokers may also have up to a 70% higher risk of developing all forms of dementia when compared to non-smokers. This risk can be significantly reduced by stopping smoking.



70%

***higher risk of developing dementia***

## Smoking is thought to cause dementia via a number of mechanisms:

- Firstly, smoking has an extremely harmful effect on the heart and blood vessels and it is now thought that what is bad for the heart and circulation is also bad for the brain. The damage smoking does to the blood vessels can lead to cerebrovascular disease, stroke and coronary heart disease which are all in turn underlying risk factors for dementia. Smoking can also contribute to the development of atherosclerosis – the build-up of fatty substances in the vessels. This can cause a narrowing of the blood vessels supplying the heart and brain, meaning not enough oxygen gets to the brain cells, leading to their damage. Smoking also makes your blood much more likely to clot which increases the risk of having a heart attack or stroke. A person who has heart disease or has had a stroke, is approximately twice as likely to develop vascular dementia.
- Smoking increases the plasma levels of an amino acid called homocysteine. High levels of homocysteine increase the risk of cardiovascular disease, Alzheimer’s disease, vascular dementia as well as other, rarer, forms of dementia.
- Finally, smoking causes direct damage to the brain cells themselves from a process called oxidative stress.

Stopping smoking can significantly reduce the risk of developing dementia; research suggests that after several years of not smoking, the risk of dementia in former smokers is close to that of people who never smoked.



## ***The other health risks of smoking***

### **Cancer**

Smoking is the cause of more than 8 out of 10 cases (86%) of lung cancer. As well as lung cancer, smokers have an increased chance of developing a number of other cancers including cancer of the mouth, lips, nose, throat, larynx, oesophagus, pancreas, liver, stomach bladder, neck of the womb (cervix), blood and kidney. Stopping smoking reduces your risk of developing cancer and the sooner you stop the better.

### **Lungs**

Smoking causes irritation and inflammation of the lungs. As well as increasing the risk of lung cancer, smoking can cause, or aggravate, coughs, colds and asthma. More seriously, smoking can cause pneumonia and chronic obstructive pulmonary disease (COPD). COPD is the name for a collection of lung diseases including chronic bronchitis and emphysema. COPD is a debilitating and progressive disease, causing difficulty breathing due to the narrowing of the airways and damaged lung tissue. 83% of COPD deaths are caused by smoking. The risk of developing COPD is much reduced by stopping smoking and lung capacity can improve by up to 10% within 9 months of giving up.

## **Other**

Smoking is also associated with the development and/or deterioration of several other diseases and medical conditions including:

- rheumatoid arthritis
- infertility
- chest infections
- diabetes
- multiple sclerosis
- optic neuritis
- Crohn's disease
- cataracts
- osteoporosis



## Stopping smoking

Given the number of diseases smoking is linked to, stopping or reducing the habit greatly improves your chances of living a healthy, disease-free life. Recent research has suggested that the proportion of people living with dementia is not as high as expected and it is thought this may be due to more and more people adopting a healthy lifestyle and addressing the risk factors.

People who smoke have a much better chance of stopping smoking if they get support to do so. There are many different ways to find support:

If you are thinking about cutting down or stopping smoking, ask your GP for advice or talk to Smokeline. Smokeline is Scotland's national stop-smoking helpline, open every day from 8am to 10pm. Smokeline advisers can give free information and advice about how to stop smoking and can work with you to come up with a plan that's right for you and your lifestyle. They can also send you a free 'Quit pack' and guide you through how to beat any cravings you may be experiencing. The Freephone number for Smokeline is **0800 84 84 84**. There is also a webchat service for those who prefer to chat online. This can be found on the Smokeline website: **[www.canstopsmoking.com](http://www.canstopsmoking.com)**.

If you would prefer face-to-face support, pharmacies and chemists can provide advice about stopping smoking and information about nicotine replacement therapies if you are considering them. You can also find out about stop-smoking services and support facilities that are available in your area by visiting **[www.canstopsmoking.com/local-help](http://www.canstopsmoking.com/local-help)** or asking a Smokeline advisor by ringing the number above.

It's never too late to stop smoking. Even if you have smoked for many years, giving up the habit will greatly improve your chances of enjoying a healthy life. Not only will stopping smoking reduce your risk of developing dementia, it will also help to protect you from other conditions such as cancer, heart disease, stroke and diabetes. It will benefit those around you too – passive smoking puts people at risk of the same health conditions associated with smoking and children are particularly vulnerable as their airways are smaller and they breathe faster. Stopping smoking will not only help to protect you from smoking-related illnesses but your friends and family too.

Being smoke-free adds years to your life and greatly improves your chances of living a happy and mobile older age; if you smoke, giving up is the biggest single step you can take to improve your health.



## ***The benefits of stopping smoking...***

### **After 20 minutes**

Your blood pressure and heart rate will return to normal.

### **After 8 hours**

The levels of nicotine and carbon monoxide in your blood reduce by more than half and oxygen levels return to normal.

### **After 48 hours**

Carbon monoxide and nicotine will be entirely eliminated from the body and your sense of smell and taste begin to return to normal. You may notice that food tastes and smells different as your mouth and nose start to recover from being dulled by the hundreds of toxic chemicals found in cigarettes.

### **After 72 hours**

The bronchial tubes in the lungs begin to relax, breathing starts to become easier and the lung's function ability will start to increase.

### **After 2-12 weeks**

Your circulation improves. This makes all physical activity, including walking, having sex and running, much easier.

Your immune system also improves, making it easier to fight off colds and flu. The increase in oxygen in the body can also reduce tiredness and the likelihood of headaches.

### **After 3-9 months**

Your lung function will increase by up to 10% and breathing and coughs improve. In later years, having maximum lung capacity can mean the difference between having an active, healthy old age and wheezing when you go for a walk or climb the stairs.

## **After 1 year**

The risk of heart disease, heart attack and stroke will drop to about half compared to that of a smoker.

Your finances will have improved. Someone who smoked 20 cigarettes a day would have spent over £3000 a year on tobacco – money that could be used for holidays, eating better, seeing friends and doing courses, all of which can help you to lead a healthy life.

## **After 10 years**

The risk of lung cancer falls to half that of a smoker.

## **After 15 years**

The risk of heart disease and heart attacks will now be the same as that of a person who has never smoked.



## Useful contacts

### Age Scotland

Age Scotland is the largest charity in Scotland dedicated to enabling everyone to make the most of later life. We provide information for people through our publications and online.

**[www.agescotland.org.uk](http://www.agescotland.org.uk)**

**Age Scotland helpline: 0800 12 44 222**

The Age Scotland helpline provides information, friendship and advice to older people, their relatives and carers.

### Alzheimer Scotland

Alzheimer Scotland is the leading dementia organisation in Scotland. It campaigns for the rights of people with dementia and their families and provides an extensive range of innovative and personalised support services.

Freephone 24 hour Dementia Helpline: **0808 808 3000**

Email: **[info@alzscot.org](mailto:info@alzscot.org)**

**[www.alzscot.org.uk](http://www.alzscot.org.uk)**





## Being Dementia Aware

This information guide has been prepared by Age Scotland and contains general advice only, it should not be relied on as a basis for any decision or action and cannot be used as a substitute for professional advice.

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Age Scotland, part of the Age Network, is an independent charity dedicated to improving the later lives of everyone on the ageing journey, within a charitable company limited by guarantee and registered in Scotland. Registration Number 153343. Charity Number SC010100.