

# Smoking and the risk of dementia

**Smoking can increase your risk of dementia. Stopping smoking is thought to reduce your risk to the level of non-smokers.**

## Does smoking increase the risk of dementia?

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There is strong evidence to show that smoking increases a person's risk of developing dementia. This includes whether someone smokes in mid-life or later life.

Smoking increases the risk of vascular problems (problems with the heart and blood vessels). These vascular problems are also linked to the two most common forms of dementia: Alzheimer's disease and vascular dementia.

Toxins in cigarette smoke also cause inflammation and stress to cells, which have both been linked to Alzheimer's disease.

# How to reduce the risk of dementia

A lifelong approach to good health is the best way to lower your risk of dementia.

There are some lifestyle behaviours with enough evidence to show that changing them will reduce your risk of dementia.

**Reduce your risk of dementia**

## Stop smoking to reduce your risk of dementia

The evidence says that stopping smoking reduces your risk of dementia. Research also shows that ex-smokers do not have an increased risk of dementia. However it's not clear when, and for how long, a person must be smoke-free to avoid it affecting their dementia risk.

It is likely the earlier someone quits and the longer they stay smoke-free the better. This is similar to other diseases, where stopping smoking leads to a reduction in the risk of cardiovascular disease or cancer.

- Talk to your GP or pharmacist about different ways to stop smoking.
- Try using a date or event as motivation for stopping. For example, you could make it a New Year's resolution.
- Consider using a less harmful nicotine product such as e-cigarettes (vaping), lozenges, patches, mouth and nasal sprays or gum.
- Try using NHS Smokefree support services, which include a helpline, app and local support services.

The World Health Organization's [Knowledge Summary on Tobacco and Dementia](#) explains more about why smoking might be linked to increased dementia risk.

## Does the amount you smoke affect the risk of dementia?

There were four studies in the [World Alzheimer's Report](#) that looked at the number of cigarettes smoked and dementia risk. Two showed a relationship between higher tobacco consumption and a higher risk of dementia.

However, there is not enough evidence to know for sure whether this is the case.

## Do e-cigarettes affect dementia risk?

Smoking e-cigarettes is also likely to be far less damaging to health than cigarettes. A [Public Health England Report in 2018](#) stated that in the UK, the risk of cancer from smoking e-cigarettes is 0.5% of the risk from normal cigarettes.

Although it was not tested, the report also suggests that the risks of cardiovascular and lung disease are likely to be much reduced as well. If true, switching to e-cigarettes may also reduce dementia risk.

## Can nicotine reduce dementia risk?

There is some evidence that exposure to nicotine, which is one of the components of cigarette smoke, can actually reduce the risk of dementia. Such reports may be useful in indicating possible research directions for drug design.

However, nicotine intake through smoking would not be beneficial. Any positive effects would be outweighed by the significant harm caused by the other toxic components in cigarette smoke.

## **Can passive smoking increase dementia risk?**

Second-hand smoke, or passive smoking, has been shown to increase the risk of cancer, cardiovascular disease and other diseases. Studies have shown that it may also increase a person's risk of developing dementia later in life.

Research suggests that the more exposure to second-hand smoke a person has, the higher the dementia risk.

## **Research into smoking and dementia**

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Research into the relationship between smoking and dementia is complex for several reasons:

- There are many different chemicals and toxins in cigarette smoke so it is unclear which ones would be causing damage.
- As smoking is a leading cause of premature death, many smokers may not reach the age at which dementia normally develops.
- It is possible that smokers who survive to old age may have genes that protect them from developing some of the diseases that cause dementia. However, these cases are rare and do not represent the whole population.

[The World Alzheimer's Report 2014 \(pages 42 – 49\)](#) brought together lots of research studies to combine their findings. In it, the authors reported a significantly increased risk of dementia in current smokers compared to people who have never smoked.

Smoking was also one of the major risk factors highlighted in the [2020 Lancet Commission on dementia risk](#). Overall, it is estimated that smoking increased the risk of developing dementia by 30-50%.

Some researchers have even estimated that [14% of dementia cases](#) worldwide may be attributable to smoking.