

# What is mild cognitive impairment (MCI)?

Factsheet 470LP  
June 2019



If a person has mild cognitive impairment (MCI) it means they have minor problems with their mental abilities, such as their memory or thinking. About 5–20% of people aged over 65 have MCI.

MCI is not a type of dementia. A person who has MCI will have more difficulties with their mental abilities than a person their age who doesn't have MCI. But their symptoms should not cause significant problems in their daily life. However a person with MCI may go on to develop dementia.

There are some things that might reduce the chance of MCI progressing to dementia. For example many people with MCI use it as an opportunity to make positive changes to be more healthy and improve their wellbeing.

This factsheet explains what MCI is and how it is different from dementia. It also explains the benefits of being tested for MCI. It looks at therapies, ways to cope with the symptoms and how to reduce the risk of developing both MCI and dementia.

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# What is mild cognitive impairment (MCI)?

## Mild cognitive impairment (MCI)

As we get older most of us notice some of our mental abilities getting worse, such as our memory and concentration. This can happen from early adulthood but it usually becomes more noticeable as we get to retirement age and older. For example many older people occasionally forget things. Or they may find it difficult to concentrate for long periods of time. For some people this happens faster than is expected in normal ageing. For example if a person becomes lost in a familiar place or forgets the names of their close family members, it may be a sign that they have 'cognitive impairment'.

## What does 'cognitive' mean?

The word 'cognitive' is a general term that means 'thinking'. It includes our brain's ability to process, store and recall information. This involves our memory, language, decision-making, problem-solving, planning, attention and how we interpret things through our senses. Some of these 'cognitive' skills tend to decline faster than others as we get older, such as our memory and attention. This is why older people may not be able to process information as quickly as younger people.

## What does 'cognitive impairment' mean?

If one or more of a person's cognitive skills – usually their memory – starts to decline more than is 'normal' for someone of their age we call this 'cognitive impairment'. It means that something is affecting their ability to think properly.

Professionals can assess a person's cognitive skills by using a range of simple tests. They will also talk to the person and those close to them about any difficulties the person is having. This can show whether the person's cognitive skills are getting worse faster than is expected in normal ageing.

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### What does 'mild' mean?

When a person has 'mild' cognitive impairment it means they can still do most day-to-day things without help – such as housework, cooking, using public transport, reading and writing. They may just need to make small changes to their life to help them adapt. However they might struggle to do more complicated tasks like sorting their finances or reading a map.

# 5–20%

About 5–20% of people aged over 65 have MCI.

### Possible signs of MCI

From time to time we all struggle with some of our cognitive skills such as our memory, concentration or attention. This can particularly happen when we are very tired or stressed. But a person who has MCI will struggle more often than is normal for a person their age.

MCI can affect a person in the following ways:

- **memory** – they might forget recent events, repeat the same question, or not recognise people
- **reasoning** – they may struggle to plan, organise, make decisions or solve problems
- **attention** – they may not be able to concentrate and be easily distracted (or they may become obsessed by something small and unimportant)
- **language** – they may take much longer than usual to think of the right word or name for something
- **visual perception** – they might struggle to interpret what they see, for example they may find it difficult to judge distances, identify objects, or walk up or down stairs.

The most common problem that people with MCI have is with their memory. About 2 in 3 people with MCI find it very difficult to remember things.

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### Causes of MCI

MCI can be an early sign that a person has a condition which is affecting their ability to think clearly. It can have a number of possible causes. For example some people have an underlying health problem that may be causing MCI. These include:

- depression, anxiety or stress
- a physical illness, such as an infection or severe constipation
- sight or hearing loss
- a vitamin deficiency or thyroid problem
- the side effects of medication.

The effect that these problems have on a person's ability to think clearly may be worse if they are very tired or in pain.

Unfortunately it isn't always possible to say what is causing MCI, even after a person has had an assessment. It may be necessary to wait several months to see how their symptoms develop. If the cause is treatable and treatment is given, the person's symptoms may improve over time. For example if a person has MCI caused by anxiety or depression, it may help if they have treatment such as talking therapies and medication. For more information see factsheet 444, **Apathy, depression and anxiety**.

However for some people, MCI may be the first sign that they have a more serious condition that is affecting their brain. For example if a person with MCI has memory problems that have gradually become worse over time, it could be a sign that they have Alzheimer's disease. Or the person's memory problems may be caused by them having poor blood supply to their brain (known as 'cerebrovascular disease'). In general these conditions are progressive – this means the person's symptoms will get worse and over time they may eventually develop dementia.

## Who gets MCI?

A person's age is the biggest risk factor for developing MCI. While some people may develop it during their 50s and 60s, most people with MCI are in their 70s or older. A person's genes can also affect their risk of developing the condition.

A person's health and lifestyle over the course of their lifetime may affect their chances of developing MCI. There is a close link between people having certain medical conditions in mid-life and developing MCI later on. These include high blood pressure, diabetes, stroke and heart problems. Having high cholesterol, being overweight in mid-life and having a history of depression may also increase a person's risk. There is evidence that physical injuries or blows to the head (known as 'traumatic brain injuries') may also increase the risk, even if the injuries happened many years ago. Therefore it's important to make sure these kinds of health problems are recognised and managed well.

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People can reduce their long-term risk of MCI by changing their lifestyle as early in their life as possible. For example they can:

- stop smoking – GPs can give advice about different ways to quit smoking
- not drink too much alcohol – aim to drink no more than 14 units per week
- eat a healthy and balanced diet, including:
  - at least five portions of fruit and vegetables on most days
  - starchy foods – for example potatoes, bread and rice (wholegrains where possible)
  - fish at least twice a week (if they eat fish) – particularly oily fish such as sardines, salmon or mackerel
  - not too much saturated fat – such as butter, sausages, burgers and other processed meats
  - not too many sugary foods – for example sweets, cakes and biscuits
  - not too much salt – check food labels and watch out for salt in foods like bread, pizza and ready meals
  - drink 6–8 glasses of fluid a day – non-alcoholic drinks and ideally without too much sugar
- be physically active – aim to do something active for at least 30 minutes most days, for example a brisk walk or a swim, or more energetic tasks in a garden or at home.

As well as exercising their body, if people exercise their mind it may reduce their risk of cognitive impairment. For example doing activities that keep the mind active and stimulated may help to reduce the risk of MCI.

## How many people with MCI develop dementia?

A person with MCI has a higher risk of developing dementia. Research has found that about 5 in every 100 people who have some form of MCI develop dementia each year.

However if people have MCI that specifically affects their memory, the chance that their condition will progress to dementia is slightly higher. Around 10–15 in every 100 people who have memory-loss MCI go on to develop dementia each year – usually because of Alzheimer’s disease.

This doesn’t mean every person with MCI will eventually develop dementia. In research that has followed people for a long time, many people with MCI don’t develop dementia. Some people’s cognitive abilities may return to normal – for example if the MCI has a reversible cause such as depression. For other people their condition may not get worse for several years.

## Who will go on to develop dementia?

Researchers have done a lot of work to try to find out which people with MCI will develop dementia. Knowing who will develop dementia means they could be offered support and treatment earlier. For example in the future researchers might develop drugs to prevent MCI progressing to dementia.

Most research looking at who will go on to develop dementia has focused on Alzheimer’s disease. This is because Alzheimer’s disease is the most common cause of dementia. It is also the best understood. Researchers have tried to work out which people with MCI will develop dementia due to Alzheimer’s disease by:

- doing simple tests based on learning lists of words
- doing brain scans – to detect changes in the structure and function of the brain
- measuring the amount of certain proteins (called amyloid and tau) in the fluid around the brain and spinal cord. Looking at these proteins may show that the changes in the brain that are seen in Alzheimer’s disease are already happening.



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These are all promising areas of research. However they can't yet tell whether a person with MCI will develop Alzheimer's disease.

There is also research looking into which people with other forms of MCI (for example non-memory loss MCI) will go on to develop dementia.

### **What are the benefits of knowing you have MCI?**

The main benefit of a person knowing they have MCI is that it can give them a chance to reduce the risk of their condition becoming worse. For example they can make positive changes to improve their health and wellbeing. See 'Can a person with MCI lower their risk of developing dementia?' on page 12 for examples. The person can also be offered information, advice and support. They can have regular reviews so that if they do develop dementia, there is a better chance it will be detected sooner and managed more effectively.

**Many people who are told they have MCI plan ahead, for example by making a power of attorney. For more information see factsheet 472, Lasting powers of attorney.**

If anyone is worried about their memory or has any signs of MCI listed on page 4 they should see their GP.

Some people might also benefit if the assessment for MCI reveals they have an underlying condition that can be treated – such as depression, high blood pressure or sight loss.

## How is MCI assessed?

The assessment for MCI is the same as for dementia – see factsheet 426, **Assessment and diagnosis**. The GP will ask about a person's symptoms including when they started and how they are affecting their daily life. The GP will review the person's physical health and any medication they are taking. They will also test the person's mental abilities and whether they have depression.

At this stage the GP may be able to make a diagnosis of MCI. However in most cases they will refer the person for a specialist assessment – often at a local memory service. The person may have a brain scan to make sure their symptoms are not being caused by something other than MCI – for example a bleed in the brain or a tumour.

The doctor will use clinical guidelines, any test results and their own judgement to make the diagnosis.

If the doctor decides that a person has MCI, they will usually refer them back to their GP.

What happens next will vary. In some parts of the country, the person will be invited to the GP or memory service to see whether their symptoms have changed – often 6 or 12 months later. In other parts of the country, the person will be told to see their GP if their symptoms get worse.

There can be a period of uncertainty after a person is diagnosed with MCI. This can be hard for the person and those around them. The person should be given information and advice, and counselling if needed. They may also be offered more support to help them live as well as possible – see the next section on 'How is MCI treated?'

Unlike dementia, if a person has been told they have MCI and they drive they will not always need to tell the Driver and Vehicle Licensing Agency (DVLA) (or the Driver and Vehicle Agency (DVA) in Northern Ireland). The person's GP should be able to give them advice about this.

## How is MCI treated?

There are currently no approved drugs to treat MCI. Research has shown the drugs used to treat Alzheimer's disease do not work for people with MCI.

However there are other things that can help someone with MCI. For example if a person has MCI there is evidence that living a healthy lifestyle will help. Doing regular 'cardio' exercise several times a week and eating a healthy diet can help a person maintain their cognitive skills like decision-making, planning and organising. See the advice about adopting a healthier lifestyle in 'Who gets MCI?' on page 6.

In some areas people with MCI are referred for regular group sessions that can help them stay well by making healthy lifestyle choices. These are sometimes called Memory Protection Groups. Other areas may have Memory Strategy Groups where people with MCI can learn ways to cope with memory problems.

## Can a person with MCI lower their risk of developing dementia?

Some of the risk factors for developing dementia are beyond a person's control, such as their age and genes. However there are some ways that people with MCI can lower their risk of developing dementia.

For example MCI is more likely to progress to dementia if the person has a poorly-managed health condition such as heart disease, diabetes, or high blood pressure. A person with MCI can keep their risk of dementia as low as possible by managing these conditions well. For example they should take medications and maintain a healthy lifestyle.

If the person smokes they should try to stop. They should also limit the amount of alcohol they drink. Doing regular physical activity seems to reduce a person's risk of developing dementia. Eating a healthy diet and keeping to a healthy weight may also help. People can get advice about all of these from their GP or primary care team (the local health professionals who provide their medical care).

People with MCI should keep their mind as active as possible because this may help to stop them developing dementia. This doesn't necessarily mean doing 'brain training' games. The main thing is for the person to try doing challenging yet enjoyable activities every day. Where possible people with MCI should keep doing their hobbies and interests. They should also stay socially active – for example seeing friends and family. While these may not seem like 'thinking' activities, socialising is a great workout for the brain.

For more information about risk factors linked to dementia see factsheet 450, **Risk factors for dementia** and booklet 35, **Dementia: Reducing your risk**.

## Tips for living well with MCI

People with MCI often find ways to cope with their problems. This can help them stay well and keep their independence. The following tips may help a person live well with MCI.

- Have a familiar routine each day – for example a time to get up, eat meals and go to bed. However it's important to include some variety to avoid getting bored.
- Keep belongings in the same place and labelled so they are easier to find.
- Use a calendar, diary or reminders on a phone or tablet to help remember appointments and important events.
- Break down complicated tasks into simple steps and focus on doing one step at a time.
- Try to reduce stress and anxiety because these can make thinking and memory problems worse. For example make time to relax and do enjoyable activities like listening to music, going out with friends, or spending time outdoors.
- Try to sleep well – avoid drinking alcohol or caffeinated drinks like tea and coffee in the evening or late at night. Where possible, spending time outside during the day can also keep a person's internal body clock working properly.
- Ask the GP about memory support groups for people with MCI in the local area. These groups can help people develop strategies for coping with memory problems and staying independent for longer.

People can use the Alzheimer's Society online Dementia Directory to find out whether there are groups for people with MCI in their local area – [alzheimers.org.uk/dementiadirectory](https://www.alzheimers.org.uk/dementiadirectory)

Booklet 1540, **The memory handbook** also has lots of practical tips about coping with memory loss.

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## **Other useful organisations**

### **Age UK**

0800 055 6112 (Advice Line)

[contact@ageuk.org.uk](mailto:contact@ageuk.org.uk)

[www.ageuk.org.uk/services/in-your-area/social-activities/](http://www.ageuk.org.uk/services/in-your-area/social-activities/)

Age UK's website has a directory that you can use to search for social events, groups for older people and leisure activities in your local area.

### **University of the Third Age**

020 8466 6139 (Monday to Friday, 9.30am–6.30pm)

<https://u3a.org.uk/find>

The University of the Third Age (U3A) promotes lifelong learning among people in their 'third age' – when they are no longer in full-time employment or raising a family. There are over 1,000 local U3A groups across the UK. Search for your local group on the U3A website.

## Factsheet 470LP

Last reviewed: June 2019

Next review due: June 2022

Our information is based on evidence and need, and is regularly updated using quality-controlled processes. It is reviewed by experts in health and social care and people affected by dementia.

Reviewed by: Dr Sarah Butchard, Consultant Clinical Psychologist, Mersey Care NHS Foundation Trust, Liverpool; Dr Mhairi Donaldson, Consultant Clinical Psychologist, Essex Partnership University NHS Foundation Trust; and Dr Katharina Reichelt, Consultant Clinical Psychologist, Northumberland, Tyne and Wear NHS Trust

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### **Alzheimer's Society Dementia Helpline England, Wales and Northern Ireland:**

**0300 222 1122**

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Registered charity number 296645.

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Alzheimer's Society is the UK's leading dementia charity. We provide information and support, improve care, fund research, and create lasting change for people affected by dementia.

