

# Mild cognitive impairment (MCI)

This help sheet provides information about mild cognitive impairment (MCI), its diagnosis and what it means to be told that you have MCI.

## What is mild cognitive impairment?

Mild cognitive impairment (MCI) is a condition that causes a slight but noticeable decline in memory or other thinking skills, also known as cognitive abilities. These changes can be measured using memory and other tests, and are serious enough to be noticed by the individuals experiencing them and/or by family and close friends, although they will generally not prevent people from going about their daily lives and activities. People with MCI have more memory or other thinking problems than would be expected from someone at a similar age, and show some decline in their cognitive skills, but these declines are not pronounced enough to meet diagnostic criteria for Alzheimer's disease or another type of dementia.

Importantly, having MCI does not necessarily mean that a person will go on to develop dementia. In fact, about 40% of people diagnosed with MCI recover normal cognitive function (although they do have a higher risk of developing dementia later on), and a further 20-30% do not decline further at all. The latest studies suggest that only approximately 40% of people with MCI will develop Alzheimer's disease or dementia within 10 years of diagnosis.

The types of difficulties and changes experienced by someone with MCI vary from person to person. MCI may involve problems with memory, language, attention, processing visual and spatial information, complex thinking functions, or problems in a combination of these areas. In MCI these problems are less severe than those experienced by people with dementia.

The term ‘mild’ in MCI is used in comparison to the more severe cognitive impairment of dementia. It does not mean that the person with MCI experiences only mild problems. In fact, their symptoms might be very concerning to them and/or their family.

The following criteria are used by medical practitioners in determining if a person has MCI:

- report of cognitive problems, preferably confirmed by another person
- abnormal cognitive function detected with standard memory and other cognitive tests
- evidence of decline in one or more cognitive skills
- essentially normal ability to perform daily activities
- absence of dementia

Determining if a person has MCI can sometimes be problematic. Cognitive impairment can have many varied causes, making MCI a broad umbrella term that can encompass a large number of underlying diseases or injuries. The prognosis for any individual very much depends on the underlying cause.

## **Diagnosing MCI**

MCI remains a ‘clinical’ diagnosis representing a doctor’s best professional judgement about the reason for a person’s symptoms. There are currently no tests or procedures to demonstrate conclusively that a person has MCI. It is also not yet possible to determine the underlying cause of MCI in many cases.

MCI is usually detected using a range of tests and assessments. This begins with the doctor talking to both the person and, if possible, a close friend or family member, to get a thorough understanding of the cognitive problems they are experiencing, their medical history, the medications they are taking, and any other relevant information.

A physical examination and blood tests may be done in order to rule out causes of cognitive impairment such as depression, medication problems or a nutritional deficiency. People suspected of having MCI will also be asked to undertake general tests of cognitive function to measure their memory, language, attention and other skills. Brain imaging, such as computerised tomography (CT) and magnetic

resonance imaging (MRI), may also be performed to assess abnormalities in the brain structure to further rule out other causes of cognitive impairment.

In general, the tests used to detect MCI are the same as those used to diagnose dementia. For further information about these, see sheet **Dementia Q&A 10: Tests used in diagnosing dementia**.

## **What is the difference between MCI and normal forgetfulness?**

Everybody at some point in their life will experience the occasional memory lapse, including some that may appear serious and be embarrassing. These memory lapses often become more frequent with age and might include occasional difficulties recalling a name or trouble remembering the right word. Occasional memory lapses and forgetfulness are normal, and are different from memory lapses that become more common and concerning. Anyone with any concerns about their memory should consult their GP.

## **What are the types of MCI?**

MCI can be broken down into two different types based on the thinking skills affected: amnesic MCI (which primarily affects memory) and non-amnesic MCI (which affects other cognitive abilities). Research has suggested that amnesic MCI is about twice as common as the non-amnesic type.

### **Amnesic MCI**

As suggested by the name, the most prominent symptom of amnesic MCI is memory impairment. People with this type of MCI may forget important information that he or she had previously recalled easily, such as appointments, conversations or recent events. People with amnesic MCI may progress over time to develop Alzheimer's disease.

### **Non-amnesic MCI**

In non-amnesic MCI, a cognitive skill other than memory is most commonly impaired. This may include thinking skills such as language, attention, the ability to make sound decisions or visual perception. This type of MCI may progress to other forms of dementia such as Lewy body disease, frontotemporal dementia, vascular dementia or atypical Alzheimer's disease.

## **MCI as a precursor to dementia**

MCI is often thought of as a transitional state between normal ageing and early dementia; however, having MCI does not necessarily mean that a person will go on to develop dementia, and if it does can take many years to do so. A substantial proportion of people diagnosed with MCI do not develop dementia and are found to have stable or even improved cognitive function when it is retested over time.

Various studies show differing results in their estimates of how many people with MCI will progress to dementia, but typically it is reported that 10% to 15% of people with MCI develop dementia per year. In the general population, only 1% to 2% of older people develop dementia per year. So having MCI considerably increases the likelihood of subsequently developing dementia.

## **What does it mean to be diagnosed with MCI?**

Most people who experience changes in their cognitive abilities are very aware of and concerned by their problems, so being assessed for and diagnosed with MCI (or potentially being diagnosed with something else that can be treated) can be a great relief. For many, knowing that MCI is the cause of problems confirms that their concerns are valid and there is a medical reason for their symptoms. A diagnosis can also allow people put strategies in place to manage the problems they have and access support services that can help.

Knowing that they are at a higher risk of developing dementia also allows people with MCI to plan for the possibility that they may deteriorate in the future, to evaluate their support systems and to make important legal, financial and personal decisions such as appointing powers of attorney. They can also take steps to establish and maintain a healthy, active lifestyle, which might help delay cognitive decline or prevent the development of dementia altogether.

## Treatment options

At this point in time there are no medications to treat MCI, and the few medications used to treat the symptoms of Alzheimer's disease have not shown any benefit in delaying or preventing the progression of MCI to dementia. Regular monitoring is critical since the course of cognitive changes with MCI will vary for each individual. Detection and monitoring of MCI allows dementia to be identified at an early stage if it does develop. This is important given that current treatments for dementia are most effective in the early stages of the condition. People can then also be assisted with information and support services to help them live with dementia and plan for their future needs.

As new treatments for dementia become available, it is likely that detection of MCI will become even more important. In addition, approaches to prevent dementia can be expected to be potentially helpful to those with MCI.

### Further Information

Dementia Australia offers support, information, education and counselling. Contact the National Dementia Helpline on **1800 100 500**, or visit our website at [dementia.org.au](http://dementia.org.au)



For language assistance phone the Translating and Interpreting Service on **131 450**