



A dementia Q&A for healthcare professionals

With Dr Patricia Macnair



Introduction

Europe's population is ageing: in 2015, 18.9% of the EU-28's population was aged 65 or over, and this percentage is expected to increase to 28.7% by 2080 — meaning that by then, 149,240,000 people will be aged 65+^{1,2}.

As a result of this demographic shift, healthcare professionals are observing and treating more diseases associated with age — particularly cognitive decline and dementia. For example, data shows that by the age of 70 about 1 in 30 people will have developed dementia; by 80 about 1 in 13 people are affected, and by 90, 1 in 4 are affected³.

This dementia Q&A is intended as a helpful reference tool for healthcare professionals, based on my own experiences working with patients, their families, fellow medical practitioners, and the care system. There are a number of recurring questions I am often asked, ranging from whether diet can have an impact on dementia risk, to recommendations on the best ways to stay mentally active. These answers are based on experience, recommended best practice, and the latest scientific evidence.

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What are the common signs and symptoms of dementia?

Patients typically present with a variety of symptoms as the disease process is varied in dementia (especially between different types or causes of the disease) and it can affect any part of the brain. However, memory and sequencing skills tend to be affected first. For example, a patient's family may have initially noticed that they forget things like simple instructions or recent events, such as what they bought at the shops yesterday (although their long-term memories will be unaffected). They may also repeatedly ask the same questions, seek the same information or say the same things. Equally, their memory problems could affect functional performance, so they will struggle to remember how to complete everyday sequential tasks such as brushing their teeth or making the bed. The family may notice that the person seems to be living in an increasing state of chaos or self-neglect, no longer cooking or cleaning up as they used to.

A change in a person's mood or socialising habits may also be a symptom of dementia. Depression and anxiety are common in older people, so it is important to rule these out before considering a dementia diagnosis (it can be hard to make the differentiation). Dementia may affect a patient's mood and enjoyment levels: resulting in reduced interest in pastimes they previously enjoyed. They may become withdrawn, lose their appetite and a degree of mobility. Sometimes they become wary of others or even a little paranoid about the intentions of those trying to help them.

What contributes to dementia risk?

There are many different types and causes of dementia, some of which have preventable elements and some of which can be reversed if identified and treated quickly enough. For example, the risk of dementia due to vascular disease may be reduced by dealing with contributory factors such as smoking, high blood pressure or raised cholesterol levels. However, the cause of the commonest type of dementia, Alzheimer's Disease, is not yet fully understood. While an inherited family trait may play a part to a varying degree (hence the importance of taking a family history) there is not much that can be done to reduce this risk.

Healthcare professionals should also be aware of health problems that cause dementia-like symptoms. Older people are at greater risk of falls, for example, which may result in a head injury and subdural haematoma that could present as dementia. A CT head scan will reveal the true problem. Likewise, brain tumours become more common with age, but can be removed to improve cognition. Other problems include nutritional deficiencies, such as Vitamin B12 and folate, high calcium levels (due to other diseases), an underactive thyroid gland, and depression.



What are some scientifically-proven ways to help reduce dementia risk?

There is no single lifestyle change or therapy which can reliably prevent dementia. But overall, a healthy diet and active lifestyle are key to maintaining healthy brain function and preserving cognition as far as possible. Making lifestyle changes such as quitting smoking are important, as smoking damages the blood vessels and increases the risk of vascular diseases, and therefore the risk of vascular dementia. Although there is much

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debate about the type and duration of exercise to recommend, there is plenty of evidence to show that regular exercise or activity promotes cardiovascular health and controls weight, and reduces the risk of dementia. Likewise, patients should be getting adequate sleep,

and addressing stress and anxiety. Healthcare professionals should remind their patients about the need for regular blood pressure check-ups and, if they have diabetes, help them to manage it appropriately in order to achieve the best blood sugar control possible. Poor diabetic control is associated with cardiovascular disease, and may contribute to vascular dementia.

It's important to remind patients that a healthy brain will have more reserve and it will take longer for the diseases that cause dementia to have an impact. In other words, the better a patient's brain is functioning, the more the onset of dementia symptoms can be delayed. So how can patients develop a good cognitive reserve? They should be encouraged to be actively involved in their own healthcare and disease prevention. This should include pursuing a healthy diet and lifestyle. Habitual coffee/caffeine consumption may help boost this cognitive reserve in older adults, particularly in women⁴⁻⁷.

Does diet have any impact on risk of dementia?

A healthy diet such as the Mediterranean diet — high in fruits and vegetables, low in saturated fats — can reduce the risk of several diseases that can contribute towards dementia risk (such as cardiovascular disease). A good diet is also associated with improved overall brain function. Research suggests intakes of dietary components such as omega 3 fatty acids, B vitamins, and antioxidant nutrients are associated with better cognitive performance in older patients⁸. The dietary pattern associated with a Mediterranean-style diet provides good sources of these nutrients, and overall is associated with healthy ageing.



There are also a number of studies linking a moderate intake of coffee with a protective effect against physiological, age-related cognitive decline and other neurodegenerative diseases such as Alzheimer's and Parkinson's^{7,9-11}. The association between coffee consumption and cognitive decline is illustrated by a 'U-shaped' pattern in recent meta-analyses, with the greatest protection seen at an intake of approximately 3-5 cups of coffee per day^{9,12}. The European Food Safety Authority (EFSA) concluded that intakes up to 400mg of caffeine (the equivalent of up to 5 cups of coffee per day), from all sources, do not raise any concerns for healthy adults¹³.

Will physical activity and/or mental exercise help reduce risk of dementia?

In short, all physical and mental exercise is good for patients. Our brains are constantly growing new connections and this process can continue throughout our lives if we keep setting ourselves challenges such as learning a new skill, as well as maintaining existing skills¹⁴. An increasing body of research demonstrates the protective effect of physical exercise on cognitive function¹⁵. Patients can be encouraged to take up new sports or hobbies: a hobby that includes a social element, such as joining a local choir, provides a double benefit, as social situations provide their own mental challenges and therefore stimulate the brain.

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Is it normal to experience memory loss with ageing?

This is a difficult question as while we know that 'slowing down' in older age can be quite common, healthcare professionals are divided on whether all changes in memory and cognitive function should be investigated, or whether some degree of change should be considered 'normal' or at least 'acceptable' as the years pass. With age, most people start

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to acquire co-morbidities that can have some subtle impact on cognitive function, while on the other hand, some argue that we simply start to think in different ways, becoming more distractible, losing an urgency or immediacy we had in our youth.

What matters most, especially in much older or frailer people, is whether these changes are affecting their ability to carry out their normal daily activities. There's no doubt that we should take seriously the concerns of any patient who presents with worries about their memory, and

establish whether they are experiencing a genuine deterioration in cognitive function. But the significance of symptoms and the urgency to investigate may not be as great in a very dependent frail 80-year-old as it is in a still active and independent 80-year-old whose symptoms are impacting daily life.

In most areas it is now possible to refer patients who are worried about their memory to a local clinic that specialises in memory-related diseases. These clinics make a thorough initial assessment, which may include diagnosis of conditions such as Alzheimer's. Those not thought to have a formal diagnosis of dementia may then be given advice on lifestyle changes to improve their memory or cognitive function and reduce their dementia risk, such as improving their diet or quitting smoking. They will also be monitored regularly for signs of deterioration.

What are the best ways to keep mentally active?

While there are products such as 'brain training exercises' specifically marketed as ways to improve mental performance or reduce age-related cognitive decline, in reality, any social, stimulating or learning activity will help improve and maintain brain function. Patients can be encouraged to try options such as taking up new hobbies, joining social groups or even just to take an interest in current events by reading the newspapers. Again, coffee can



play a positive role here: a 2016 review of the effects of coffee and caffeine on brain health concluded that caffeine has many positive actions on the brain — it can increase alertness and well-being, help concentration, improve mood, and limit depression¹⁶.

Does going out and socialising help improve mental alertness?

There is evidence to suggest that taking steps to look after your mental health, by managing stress, reducing anxiety, and maintaining mood may reduce dementia risk¹⁷. Connecting with others and developing a good social network is one of the five steps

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recommended for boosting mental well-being and provides plenty of mental stimulation that will help promote cognitive function¹⁸. For patients, this can be as simple as just socialising with friends over a coffee, getting involved in the local community or taking up group activities. The caveat here is that socialising shouldn't involve an increase in known risk factors for dementia such as smoking or excessive drinking.

There is also a wider point to emphasise about the role of a good social support network: firstly, in reducing some of the risk factors connected with dementia; and secondly, in helping patients with cognitive decline maintain their physical health and independence. A strong social network of family and friends can support older people in their efforts to keep going out and meeting people, to stay active and mobile, to eat properly, and to catch any early warning signs that the person might be struggling with their home life. Social circumstances may be the prime factor that either increases or decreases the problems associated with cognitive decline.





About Dr Patricia Macnair

Dr Macnair is an Interface Geriatrician, working with older people on the borders between hospitals and the community to help admission avoidance when they come in to the emergency assessment unit or preparing for discharge back into the community.

After qualifying in Medicine at the University of Bristol (UK) in 1982, she worked for several years within hospital medicine gaining experience across a variety of clinical specialities, before rekindling an early interest in writing and radio. She has now worked for over 20 years as a freelance medical journalist and broadcaster.

She holds an MA in Medical Ethics and Medical Law from King's College, University of London (2001) and has a particular interest in health in later life, frailty, delirium & dementia, and ethical issues, especially around end of life. Dr Macnair is a member of the British Medical Association.

About ISIC

The Institute for Scientific Information on Coffee (ISIC) is a not-for-profit organization, established in 1990 and devoted to the study and disclosure of science related to "coffee and health." Since 2003 ISIC has also supported a pan-European education programme, working in partnership with national coffee associations in nine countries to convey current scientific knowledge on "coffee and health" to health care professionals.

ISIC's activities are focused on:

- the study of scientific matters related to "coffee and health"
- the collection and evaluation of studies and scientific information about "coffee and health"
- the support of independent scientific research on "coffee and health"
- active dissemination of balanced "coffee and health" scientific evidence and knowledge to a broad range of stakeholders.

ISIC respects scientific research ethics in all its activities. ISIC's communications are based on sound science and rely on evidence and scientific studies derived from peer-reviewed scientific journals and other publications.

ISIC members are six of the major European coffee companies: illycaffè, Jacobs Douwe Egberts, Lavazza, Nestlé, Paulig, and Tchibo.

About coffeandhealth.org

The website www.coffeandhealth.org is a science-based resource developed for health care and other professional audiences and provides the latest information and research into coffee, caffeine and health.

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