

Colorful Fruit And Veg May Reduce Risk Of Cognitive Decline



Fruits and vegetables, such as strawberries, blueberries, oranges, and peppers, owe their bright colors to plant chemicals known as flavonoids.

These phytochemicals have powerful antioxidant properties, which has raised hopes that they could reduce oxidative stress in the brain.

Oxidative stress is a strong candidate for causing age-related cognitive decline and eventually dementia, which affects a person's memory, thinking, and reasoning abilities.

In 2014, around 5 million adults aged 65 years and older had dementia in the United States alone. According to projections, this number will increase to nearly 14 million by 2060.

While there are treatments for temporarily alleviating the symptoms of dementia, there is currently no cure available. The search is therefore on to identify lifestyle factors, such as diet, that can reduce individuals' risk of developing the condition.

Previous research into possible links between eating foods rich in flavonoids and reduced risk of cognitive decline later in life has been inconclusive, however.

A new study that followed almost 80,000 middle-aged individuals for more than 20 years has now found that those who consumed the most flavonoids were less likely to experience early signs of cognitive decline in

later life.

Even after adjustment for other risk factors, such as physical exercise, those who ate the most flavonoids in their diet were 20% less likely to develop subjective cognitive decline compared with those who ate the least.

The research appears in the journal *Neurology*.

Antioxidant powerhouses

“There is mounting evidence suggesting flavonoids are powerhouses when it comes to preventing your thinking skills from declining as you get older,” says senior author Dr. Walter Willett, Ph.D., of Harvard University in Boston, MA.

“Our results are exciting because they show that making simple changes to your diet could help prevent cognitive decline,” he adds.

Some flavonoids appeared to provide stronger protection from cognitive decline than others.

Flavones, a type of flavonoid present in yellow and orange fruits and vegetables, were associated with a 38% reduction in risk.

Anthocyanins, which are present in blueberries, blackberries, and cherries, were associated with a 24% reduction in risk.

“While it is possible other phytochemicals are at work here, a colorful diet rich in flavonoids — and specifically flavones and anthocyanins — seems to be a good bet for promoting long-term brain health,” says Dr. Willett.

“And it’s never too late to start, because we saw those protective relationships whether people were consuming the flavonoids in their diet 20 years ago or if they started incorporating them more recently,” he adds.

Subjective cognitive decline

For their study, the researchers drew upon data from two large longitudinal studies, one in men and one in women, that monitored the lifestyle and health of volunteers over several decades.

The Nurses’ Health Study commenced in 1976 and represents one of the biggest studies into risk factors for chronic disease in women.

For this paper, data were available for 49,493 women who completed seven questionnaires about their diet over the period between 1984 and 2006 and cognitive decline follow-up surveys in 2012 and 2014.

The researchers also took data from the Health Professionals Follow-up Study, with information available for 27,842 men who completed five dietary questionnaires between 1986 and 2002.

Their subjective cognitive decline was measured in 2008 and 2012.

The cognitive decline surveys included questions such as:

- “Do you have more trouble than usual remembering recent events?”
- “Do you have more trouble than usual following a group conversation or a plot in a TV program due to your memory?”
- “Do you have trouble finding your way around familiar streets?”

Other contributors to cognitive health

In their analysis of the relationship between dietary flavonoids and subjective cognitive decline, the researchers took into account the participants’ intake of other nutrients, such as vitamins and omega-3 fatty acids.

They also accounted for a raft of non-dietary factors, including physical activity, body mass index, smoking, alcohol intake, and family history of dementia.

“Our results remained robust after we adjusted for all the major non-dietary and dietary risk factors for poor cognitive function and were consistent over the long-term follow-up period,” said Dr. Tian-Shin Yeh, Ph.D., from the Harvard T.H. Chan School of Public Health in Boston, MA, who works in the Harvard-Oxford Program in Epidemiology.

She told *Medical News Today* that randomized controlled trials that compare intervention and control groups would be needed to prove beyond doubt that flavonoids prevent cognitive decline and to establish the effective amounts.

However, it is challenging to ensure large numbers of participants adhere to a particular diet over long periods of time in such studies. Alternatively, further studies like theirs will help confirm the results, said Dr. Yeh.

“The findings of the current study can serve as a base for future studies to further understand the role flavonoids may play [in] cognitive decline,” she added.

She said some short-term randomized controlled trials suggest that flavonoid supplements may benefit cognitive performance, but much more work remains to be done to confirm this.

“In the meantime, the consumption of flavonoid-rich foods seems to be the best choice, in part because components other than flavonoids in these foods may be providing some of the benefits. Also, we have extensive long-term evidence on the safety and additional benefits of these foods,” Dr. Yeh told *MNT*.

Limitations of the research

Dr. Sara Imarisio, Ph.D., head of research at Alzheimer's Research UK, welcomed the new findings but said they should be treated with caution.

"The study relied on participants accurately filling out a survey about what they ate, rather than having their food intake monitored," said Dr. Imarisio.

"What's more, this study didn't look at dementia, and we can't know from this research whether a diet high in flavonoids would have any effect in either preventing or delaying the onset of the condition," she added.

She noted that, in addition to diet, other lifestyle factors are important, such as not smoking, staying mentally and physically active, and drinking alcohol within the recommended limits.

"More research is needed on the possible benefits of different food products to the brain, and especially in the prevention and/or management of dementia," said Dr. Karen Harrison Dening, Ph.D., head of research and publications at Dementia UK.

However, she said, evidence suggests that a Mediterranean diet — which has low amounts of meat and dairy products, in addition to fish, leafy green vegetables, fruits, nuts, and olive oil — is good for brain health.

MedicalNewsToday, posted on SouthFloridaReporter.com, July 30, 2021

Republished with permission