# Preventing dementia: the promising, the disappointing and the inconclusive

by Melissa Healy - in LA Times - Dec 2017

What's proven to prevent the development of dementia after the age of 80? Not brain training, not medication, not regular exercise, not a healthier diet and not a busy social calendar, according to a series of reports published Monday.

But ask the question a bit differently, and the answer is not quite as discouraging: What should you be doing anyway right now that might delay or prevent the development of dementia late in life? Some combination of all of the above.

Most of us hope to live well into old age, and doing so with our marbles intact is typically a condition we attach to that wish. But half or more of Americans over the age of 90 will be beset with some type of dementia, and 1 in 10 people age 65 and older has Alzheimer's disease.

Scientific research, in its highest and most rigorous form, has done little to illuminate a single path to prevent or forestal dementia and cognitive decline. That grim conclusion emerged in four reports published by the Annals of Internal Medicine.

Culling the highest-quality research it could find on preventing Alzheimer's disease and other dementias, the Minnesota Evidence-based Practice Center concluded that cognitive training has not been shown definitively to work. Neither have prescription medications or over-the-counter dietary supplements. They couldn't even find a single exercise regimen that fit the bill.

These findings underpinned a recent report by the National Academy of Medicine on preventing dementia. But while the Minnesota group found an absence of decisive effects, it documented some highly suggestive evidence that some things were helpful — in particular, for the effects of exercise, and for strategies, including medications, that manage diabetes and control high blood pressure and worrisome cholesterol at midlife.

Several studies, the group noted, suggested that those who perform aerobic and/or resistance training fare better in staving off cognitive decline and dementia than do more sedentary folk.

"We believe that those findings provide a signal that physical activity offers cognitive benefit," the Minnesota group concluded. The problem, they added, was that studies did not go on for long enough, or enroll enough participants, "to show the true long-term effect of a physically active lifestyle."

Meanwhile, the Minnesota data analysts wrote, studies that follow large populations over a long period of time "mostly showed that diabetes, midlife hypertension, and midlife hyperlipidemia were associated with increased dementia risk" and that use of cholesterol-lowering statin drugs and non-steroidal anti-inflammatory medications such as ibuprofen "was associated with lower dementia risk."

Rigorous clinical trials failed to find clear benefits for such medications, the analysts noted. But the kinds of trials that would do so would have to take into account so many factors that play a role in overall health, and for so long, that that they are "not likely to be logistically or financially feasible." "All evidence indicates that there is no magic bullet," Dr. Eric B. Larson, an internist with a focus on Alzheimer's disease, wrote in an editorial. Despite the incomplete science, patients still want their doctors to give them concrete advice.

"When people ask me how to prevent dementia, they often want a simple answer, such as vitamins, dietary supplements, or the latest hyped idea," wrote Larson, the executive director of Kaiser Permanente's Washington Health Research Institute.

"I tell them that they can take many common-sense actions that promote health throughout life and may help to avoid or delay" Alzheimer's disease and related dementias.

Among those actions, Larson includes not smoking, engaging in regular physical activity, controlling diabetes, hypertension and cholesterol, and maintaining a healthy diet and weight.

"Engaging in cognitively stimulating activities and avoiding social isolation also are probably beneficial," Larson wrote. And as patients age, doctors "should do what we can to correct their vision and hearing loss."

"Note that none of these recommendations has harmful side effects," he added.

Knowing the many things that go into making a brain healthy and resilient, a mixed approach just makes sense, said Keith Fargo, director of scientific programs and outreach for the Alzheimer's Assn.

"You can't make one good choice in your life and expect that's going to have an impact," Fargo said. "But we do believe if you make a number of choices, the totality of those things together can make an impact. After all, your doctor doesn't just say, 'Take your statin.' The medical advice is to make a broad effort to live a healthier lifestyle, and that's good advice for protecting your brain health as well."

The Alzheimer's Assn. has distilled many research findings into an easy guide for patients called Ten Ways to Love Your Brain:

#### Break a sweat.

Engage in regular cardiovascular exercise that elevates your heart rate and increases blood flow to the brain and body. Several studies have found an association between physical activity and reduced risk of cognitive decline.

#### Hit the books.

Formal education in any stage of life will help reduce your risk of cognitive decline and dementia. For example, take a class at a local college, community center or online.

#### Butt out.

Evidence shows that smoking increases risk of cognitive decline. Quitting smoking can reduce that risk to levels comparable to those who have not smoked.

#### Follow your heart.

Evidence shows that risk factors for cardiovascular disease and stroke — obesity, high blood pressure and diabetes — negatively impact your cognitive health. Take care of your heart, and your brain just might follow.

#### Heads up!

Brain injury can raise your risk of cognitive decline and dementia. Wear a seat belt, use a helmet when playing contact sports or riding a bike, and take steps to prevent falls.

#### Fuel up right.

Eat a healthy and balanced diet that is lower in fat and higher in vegetables and fruit to help reduce the risk of cognitive decline. Although research on diet and cognitive function is limited, certain diets,

including Mediterraneanand Mediterranean-DASH (Dietary Approaches to Stop Hypertension), may contribute to risk reduction.

#### Catch some Zzz's.

Not getting enough sleep due to conditions like insomnia or sleep apnea may result in problems with memory and thinking.

#### Take care of your mental health.

Some studies link a history of depression with increased risk of cognitive decline, so seek medical treatment if you have symptoms of depression, anxiety or other mental health concerns. Also, try to manage stress.

#### Buddy up.

Staying socially engaged may support brain health. Pursue social activities that are meaningful to you. Find ways to be part of your local community — if you love animals, consider volunteering at a local shelter. If you enjoy singing, join a local choir or help at an afterschool program. Or, just share activities with friends and family.

#### Stump yourself.

Challenge and activate your mind. Build a piece of furniture. Complete a jigsaw puzzle. Do something artistic. Play games, such as bridge, that make you think strategically. Challenging your mind may have short and long-term benefits for your brain.

Memory loss that disrupts daily life - 10 warning signs of Alzheimer's:

## Memory loss that disrupts daily life

One of the most common signs of Alzheimer's is memory loss, especially forgetting recently learned information. Others include forgetting important dates or events; asking for the same information over and over; increasingly needing to rely on memory aids (e.g., reminder notes or electronic devices) or family members for things they used to handle on their own.

#### What's a typical age-related change?

Sometimes forgetting names or appointments, but remembering them later.

## Challenges in planning or solving problems

Some people may experience changes in their ability to develop and follow a plan or work with numbers. They may have trouble following a familiar recipe or keeping track of monthly bills. They may have difficulty concentrating and take much longer to do things than they did before.

## What's a typical age-related change?

Making occasional errors when balancing a checkbook.

# Difficulty completing familiar tasks at home, at work or at leisure

People with Alzheimer's often find it hard to complete daily tasks. Sometimes, people may have trouble driving to a familiar location, managing a budget at work or remembering the rules of a favorite game.

#### What's a typical age-related change?

Occasionally needing help to use the settings on a microwave or to record a television show.

## **Confusion with time or place**

People with Alzheimer's can lose track of dates, seasons and the passage of time. They may have trouble understanding something if it is not happening immediately. Sometimes they may forget where they are or how they got there.

#### *What's a typical age-related change?* Getting confused about the day of the week but figuring it out later.

### Trouble understanding visual images and spatial relationships

For some people, having vision problems is a sign of Alzheimer's. They may have difficulty reading, judging distance and determining color or contrast, which may cause problems with driving.

*What's a typical age-related change?* Vision changes related to cataracts.

## New problems with words in speaking or writing

People with Alzheimer's may have trouble following or joining a conversation. They may stop in the middle of a conversation and have no idea how to continue or they may repeat themselves. They may struggle with vocabulary, have problems finding the right word or call things by the wrong name (e.g., calling a "watch" a "hand-clock").

#### What's a typical age-related change?

Sometimes having trouble finding the right word.

# Misplacing things and losing the ability to retrace steps

A person with Alzheimer's disease may put things in unusual places. They may lose things and be unable to go back over their steps to find them again. Sometimes, they may accuse others of stealing. This may occur more frequently over time.

#### What's a typical age-related change?

Misplacing things from time to time and retracing steps to find them.

### **Decreased or poor judgment**

People with Alzheimer's may experience changes in judgment or decision-making. For example, they may use poor judgment when dealing with money, giving large amounts to telemarketers. They may pay less attention to grooming or keeping themselves clean.

#### What's a typical age-related change? Making a bad decision once in a while.

**J** 

# Withdrawal from work or social activities

A person with Alzheimer's may start to remove themselves from hobbies, social activities, work projects or sports. They may have trouble keeping up with a favorite sports team or remembering how to complete a favorite hobby. They may also avoid being social because of the changes they have experienced.

#### What's a typical age-related change?

Sometimes feeling weary of work, family and social obligations.

## Changes in mood and personality

The mood and personalities of people with Alzheimer's can change. They can become confused, suspicious, depressed, fearful or anxious. They may be easily upset at home, at work, with friends or in places where they are out of their comfort zone.

#### What's a typical age-related change?

Developing very specific ways of doing things and becoming irritable when a routine is disrupted.