Take steps to improve your brain health

### Stay active & exercise
Strive for at least 150 minutes of weekly, moderate aerobic activity.

### Don’t smoke
If you smoke, quit. If you don’t smoke, don’t start.

### Check your blood pressure & cholesterol
Work with your doctor to manage blood pressure and cholesterol levels.

### Manage blood sugar levels
Diabetes increases the risk of stroke, cognitive decline, and dementia.

### Sleep well
Aim for 7 to 8 hours of sleep in a 24-hour period.

### Eat healthy
Limit salt intake. Avoid excessive alcohol consumption.

The Brain-Heart Connection: GCBH Recommendations to Manage Cardiovascular Risks to Brain Health

[GlobalCouncilonBrainHealth.org](http://GlobalCouncilonBrainHealth.org) • Contact: GCBH@aarp.org

For more brain health tips see StayingSharp.org • DOI: https://doi.org/10.26419/pia.00099.002
SAVE YOUR MONEY, HONEY!

The GCBH does **not** recommend any dietary supplement for brain health.*

6 Things to Consider Before You Buy a Supplement

- **Beware of supplement claims** that sound too good to be true.
- **Check for warnings** related to your specific health conditions and for third-party quality assurance.
- **Show your health care provider** what drugs & supplements you’re already taking. They may interact with each other.
- **Think about** whether you’re already getting enough of a nutrient through your diet before you buy.
- **Food is better than pills** to get the nutrition you need to help your brain.
- **Make sure you don’t take more of a supplement than is recommended**; more is not always better.

*Unless you are one of the relatively few people in the U.S. with a vitamin B12/folate deficiency. It is estimated that 4.4% of US. adults 50+ are low on vitamin B12, but even fewer are low on folate. See Evatt, M.L. et al. (2010) "Association between vitamin B12-containing supplement consumption and prevalence of biochemically defined B12 deficiency in NHANES III (Third National Health and Nutrition Survey)." Public Health Nutr.: 13(1), 25–31. See also https://www.cdc.gov/nutritionreport/pdf/Second-Nutrition-Report-Overview-Factsheet.pdf

Global Council on Brain Health

For more brain health tips see stayingsharp.org DOI: (https://doi.org/10.26419/pia.00094.002)
<table>
<thead>
<tr>
<th>Myth</th>
<th>Fact</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. You are born with all the neurons that your brain will ever have.</td>
<td>Neurons are continually created throughout your life in areas of the brain through a process called neurogenesis.</td>
</tr>
<tr>
<td>2. You can't learn new things when you are old.</td>
<td>Learning can happen at any age when you get involved with cognitively stimulating activities like meeting new people or trying new hobbies.</td>
</tr>
<tr>
<td>3. We don't really know how the brain works.</td>
<td>Researchers have made great strides in understanding the brain in recent years. The field of neuroscience is at the cusp of new and exciting breakthroughs.</td>
</tr>
<tr>
<td>4. Dementia is an inevitable consequence of old age.</td>
<td>Dementia is not a normal part of aging. There is a big difference between typical age-related changes in the brain and those that are caused by disease.</td>
</tr>
<tr>
<td>5. Only young people can learn a new language.</td>
<td>While it may seem simpler for kids—with simpler sentence structures and a lack of self-consciousness—your age isn't a limitation in learning a new language.</td>
</tr>
<tr>
<td>6. Older people are doomed to forget things.</td>
<td>Remembering details is easier for some people than others, but this is true of all ages. There are strategies to help remember names, facts, etc. and paying closer attention can often help you remember better.</td>
</tr>
<tr>
<td>7. A person who has memory training never forgets.</td>
<td>Keep practicing your memory skills. “Use it or lose it” applies to memory training in the same way it applies to maintaining your physical health.</td>
</tr>
</tbody>
</table>
Hypertension affects many Americans, and it disproportionately affects people of color and traditionally underserved communities.

- According to the American Heart Association, an estimated 121.5 million adults in the United States have hypertension.
- Black Americans and American Indian/Alaska Natives are about 30% more likely to have hypertension than Whites.
- Black and Hispanic Americans with hypertension are less likely to have their blood pressure controlled than their White peers.

Addressing high blood pressure — by preventing, delaying, or managing hypertension — may reduce the risk of cognitive decline.

- Hypertension is a risk factor not only for stroke and heart disease, but also for cognitive impairment, including vascular dementia.
- A recent study demonstrated that the risk of developing mild cognitive impairment (MCI) among older adults can be significantly reduced through intensive blood pressure control.
- Additionally, many risk factors for developing hypertension are also risk factors for cognitive decline. These include smoking, diabetes, and obesity.

### Percent of Adults with Hypertension Whose Hypertension is Uncontrolled* By Race/Ethnicity

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>81.3%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>89.9%</td>
</tr>
<tr>
<td>Black</td>
<td>90.1%</td>
</tr>
<tr>
<td>Asian</td>
<td>77.4%</td>
</tr>
</tbody>
</table>

*Consistent with a recent clinical trial, uncontrolled hypertension is defined as those with hypertension who have systolic blood pressure ≥ 120 mmHg.

### What Can Public Health Do?

- Build public knowledge about cognitive health across the life course.
- Especially in under-resourced communities, expand access to and use of (effective) interventions that support healthy lifestyles and management of chronic conditions.
- Educate health care professionals about managing co-morbidities as a way to reduce risk for cognitive decline.
- Use data from surveillance strategies and other sources to identify at-risk populations and inform the public health response to cognitive health and impairment.

For more information, visit: alz.org/publichealth.
Diabetes and cognitive decline

There are more than 34 million Americans living with diabetes. According to the American Diabetes Association, 25% of people age 65 and older in the United States have diabetes (diagnosed and undiagnosed), and about half have prediabetes.

Doctors don’t yet understand exactly how cognitive decline and diabetes are connected, but they do know that high blood sugar or insulin can harm the brain in several ways:

- Diabetes raises the risk of heart disease and stroke, which hurt the heart and blood vessels. Damaged blood vessels in the brain may contribute to cognitive decline.
- The brain depends on many different chemicals, which may be unbalanced by too much insulin. Some of these changes may help trigger cognitive decline.
- High blood sugar causes inflammation. This may damage brain cells and cause dementia to develop.

Most people with diabetes have Type 2, which is linked to lack of exercise and being overweight. When diabetes is not controlled, too much sugar remains in the blood. Over time, this can damage organs, including the brain. Scientists are finding more evidence that could link Type 2 diabetes with Alzheimer’s disease, the most common cause of dementia. Several research studies following large groups over many years suggest that adults with Type 2 diabetes have a higher risk of developing Alzheimer’s.

What research has shown about the relationship between diabetes and cognitive decline

- People with Type 1 diabetes are at greater risk of dementia than people without diabetes. According to the one study’s results, Type 1 diabetics were 93% more likely to develop dementia. A 2021 study for Kaiser Permanente Northern California showed older adults with Type 1 diabetes who were hospitalized for just one blood sugar extreme were at higher risk for dementia — and those who were hospitalized for both highs and lows were six times more likely to later develop dementia.

- There’s a strong correlation between Alzheimer’s disease and high blood sugar levels. One study found that people with high blood sugar levels — such as those linked with Type 2 diabetes — had a dramatic increase in beta-amyloid protein, one of the hallmarks of Alzheimer’s disease.
• People in the early stages of Type 2 diabetes have signs of brain dysfunction. In fact, one study’s participants showed high levels of insulin resistance in the brain and a reduced ability to use glucose to fuel normal brain function.

• Individuals with Type 2 diabetes show accelerated cognitive decline, specifically in executive function and information-processing speed. Another study found that those whose onset of Type 2 diabetes was at a younger age are at higher risk of dementia.

• The early effects of diabetes on the brain were related to levels of a blood protein called hemoglobin A1C (HbA1C). Researchers found that even people who had diabetes for less than 10 years had deficits in memory function typically associated with a brain region called the hippocampus. They found that people with diabetes had smaller hippocampal sizes than people without diabetes. They also discovered that the decreases in hippocampal size were correlated to HbA1C blood levels, suggesting that HbA1C could be used to indicate hippocampal function and/or the onset of memory loss.

• The amyloid precursor protein gene, known to be involved in some cases of Alzheimer’s, affects the insulin pathway. Disruption of this pathway is a hallmark of diabetes. The research could point to a therapeutic target for both diseases.

Reducing risk for diabetes
The American Heart Association has identified lifestyle changes to achieve better cardiovascular health and reduce the risk for diabetes and dementia. The Life’s Simple 7 include:

1. Manage blood pressure
2. Control cholesterol
3. Reduce blood sugar
4. Get active — be physically active every day
5. Eat better — enjoy a healthy, low-fat diet
6. Lose weight
7. Stop smoking

Additional Resources

My Life Check/Life’s Simple 7
heart.org/en/healthy-living/healthy-lifestyle/my-life-check--lifes-simple-7
WHAT DO WE KNOW ABOUT PREVENTING ALZHEIMER’S DISEASE?
YOU CAN REDUCE YOUR RISK OF COGNITIVE DECLINE.

Cognitive decline is a deterioration in memory or cognition that is, to some extent, expected with age. Normal cognitive decline is different from dementia in that it is not severe enough to interfere with daily life.

Research is still evolving, but evidence is strong that people can reduce their risk by making key lifestyle changes, including participating in regular physical activity and maintaining good heart health. Based on this research, the Alzheimer’s Association offers 10 Ways to Love Your Brain, a collection of tips that can reduce the risk of cognitive decline.
WE DON’T KNOW HOW TO PREVENT ALZHEIMER’S DISEASE — YET.

Alzheimer’s is a fatal disease of the brain that causes problems with memory, thinking and behavior. It is the most common cause of dementia, a general term for the loss of memory and other abilities serious enough to interfere with daily life.

While Alzheimer’s is not normal aging, age is the greatest known risk factor for developing the disease. However, many experts believe the majority of cases occur as a result of complex interactions among genes and other factors.

Medications are available to temporarily improve cognitive function and quality of life, but there is no known way to prevent, cure or even slow the disease — yet. The Alzheimer’s Association® is leading the worldwide effort to find a treatment for Alzheimer’s, delay its onset and prevent it from developing.
10 WAYS TO LOVE YOUR BRAIN

It’s never too late or too early to start thinking about your brain’s health — making healthy choices at any age is beneficial. The Alzheimer’s Association has identified the following lifestyle habits as ways to reduce your risk of cognitive decline and maintain or potentially improve your overall health.

**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.

**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.

**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.

**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 Mediterranean and 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.

**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.

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

**LEARN MORE**

» Healthy Living for Your Brain and Body: Tips from the Latest Research

This program, based on the most current research in healthy aging, is available online at alz.org/education and through chapter offices across the country.

» alz.org/research

Find information on risk factors and current research into prevention.
The Alzheimer's Association is the leading voluntary health organization in Alzheimer's care, support and research. Our mission is to eliminate Alzheimer's disease through the advancement of research; to provide and enhance care and support for all affected; and to reduce the risk of dementia through the promotion of brain health.

Our vision is a world without Alzheimer's disease®.

800.272.3900 | alz.org®

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Rev. Mar19    773-10-0011
Use this worksheet to write notes about what you have learned, and any changes you’d like to try. Some tips for success:

» Think about the support you need to make changes or overcome any obstacles. For example, find a friend who would like to join you in making changes.

» Build on things you like or are already doing — it can make it easier to stick with a change.

» Know that you don’t have to make big changes overnight. Start small and be kind to yourself, and your healthy habits will start to add up.

» Keep in mind that it’s never too early or too late to build healthy habits. You’ve taken an important first step in attending today’s program, so keep up the good work!

Get quality sleep

Examples:

» Aim for at least six hours of sleep per night
» Adjust light, temperature and noise levels in your sleep environment
» Put away screens before bedtime

One healthy habit I already have:

________________________________________

One change I can make now:

________________________________________

One change I’d like to make in three months:

________________________________________

One tip to help me be successful:

________________________________________
Be smoke-free

Examples:
  » If you don’t smoke now, don’t start
  » Seek out quitlines or online resources
  » Talk to a health care professional

One healthy habit I already have:
___________________________________________________________________________________________

One change I can make now:
___________________________________________________________________________________________

One change I’d like to make in three months:
___________________________________________________________________________________________

One tip to help me be successful:
___________________________________________________________________________________________

Take care of your mental health

Examples:
  » Make time for something you enjoy
  » Try to build in breaks for yourself during the day
  » Pay attention to your stress level and symptoms of anxiety, depression or other mental health concerns

One healthy habit I already have:
___________________________________________________________________________________________

One change I can make now:
___________________________________________________________________________________________

One change I’d like to make in three months:
___________________________________________________________________________________________

One tip to help me be successful:
___________________________________________________________________________________________
Get moving

Examples:
» Choose fun activities that get your heart rate up and break a sweat
» Find things that might already be a part of your day — walk around your neighborhood, take the stairs more often or get off the bus a stop earlier

One healthy habit I already have:
___________________________________________________________________________________________

One change I can make now:
___________________________________________________________________________________________

One change I’d like to make in three months:
___________________________________________________________________________________________

One tip to help me be successful:
___________________________________________________________________________________________

Eat healthy

Examples:
» Focus on what you can add in, such as more fruits and veggies, instead of what to take away
» Build meals around vegetables, beans and whole grains
» Use olive oil (or another healthy oil) instead of butter

One healthy habit I already have:
___________________________________________________________________________________________

One change I can make now:
___________________________________________________________________________________________

One change I’d like to make in three months:
___________________________________________________________________________________________

One tip to help me be successful:
___________________________________________________________________________________________
Challenge yourself

Examples:
  » Learn a new skill or hobby that challenges your brain
  » Take a class about a topic that interests you

One healthy habit I already have:

___________________________________________________________

One change I can make now:

___________________________________________________________

One change I’d like to make in three months:

___________________________________________________________

One tip to help me be successful:

___________________________________________________________

Stay connected

Examples:
  » Schedule phone calls or video chats with friends and family
  » Volunteer for a cause you care about in your community

One healthy habit I already have:

___________________________________________________________

One change I can make now:

___________________________________________________________

One change I’d like to make in three months:

___________________________________________________________

One tip to help me be successful:

___________________________________________________________
AARP Brain Health Resources

Create the Good: Create the Good connects you with volunteer opportunities to share your life experiences, skills and passions in your community. createthegood.aarp.org
Explore volunteer opportunities you can do from home by visiting aarp.org/virtualvolunteering

AARP Virtual Community Center: FREE interactive online events and classes designed for learning, self-improvement, and fun. Whether it’s entertainment, lectures or tours, or exercise, job tips or caregiving help, you can find it all here aarp.org/vcc

AARP Friendly Voices Program: If you or someone you love is feeling isolated or anxious in these challenging times, hearing a friendly voice on the phone may help. You can request a call from AARP’s Friendly Voices program by dialing AARP at 1-888-281-0145 for English or 1-888-497-4108 for Spanish, between 9 a.m. and 5 p.m. local time. aarp.org/friendlyvoice

AARP Staying Sharp®: an online brain health program that includes brain health challenges, articles, activities, recipes, videos, fun games and more that is included with AARP Membership. Plus, there’s a brain health assessment with personalized recommendations. stayingsharp.aarp.org

AARP Brain Health: Find the latest on brain health and learn about memory improvement and stress management. aarp.org/brainhealth

Global Council on Brain Health: A Collaborative from AARP
The Global Council on Brain Health (GCBH) is an independent and international collaborative of scientists, health professionals, scholars and policy experts working in areas of brain health related to human cognition. GCBH members discuss specific lifestyle issue areas that may impact peoples’ brain health as they age with the goal of providing evidence-based recommendations for people to consider incorporating into their lives. globalcouncilonbrainhealth.org

AARP Online Learning: Learn about events, webinars and interactive videos and more on important issues, such as family caregiving, work and jobs, and technology literacy. learn.aarp.org

AARP’s Disrupt Dementia: Sparking bold new solutions for the world’s brain health crisis. aarp.org/disruptdementia

AARP Caregiving: A valuable resource for anyone who provides compassionate and loving assistance to those unable to fully care for themselves. aarp.org/caregiving

AARP Fraud Watch Network: Our team of fraud fighters has the real-world tips and tools to help protect you and your loved ones. aarp.org/fraudwatchnetwork
AARP Foundation’s Connect2Affect:
Features tools and resources to help evaluate isolation risks, reach out to others who may be feeling lonely and disengaged, and find practical ways to reconnect to the community. connect2affect.org

Books & Articles:
- **Keep Sharp: Build a Better Brain at Any Age** by Sanjay Gupta, M.D.
  *Keep Sharp: Build a Better Brain at Any Age*, by neurosurgeon and CNN chief medical correspondent Sanjay Gupta—an AARP-supported book based in part on the work of the Global Council on Brain Health—offers a science-driven guide for learning about protecting the mind from decline. It is available from aarp.org/keepsharp and wherever books are sold.

- **Four Amazing Reasons to Own a Pet**
  [https://blog.aarp.org/staying-sharp/reasons-pet-own-pet/](https://blog.aarp.org/staying-sharp/reasons-pet-own-pet/)

- **Brain Healthy Foods That Help Strengthen the Immune System**
  [https://blog.aarp.org/staying-sharp/brain-healthy-foods-immune-system/](https://blog.aarp.org/staying-sharp/brain-healthy-foods-immune-system/)

- **To Protect Your Brain, Take Care of Your Heart**

- **Sing, dance, move to the beat: It's all good for mood, memory and more**

Additional Resources
*The programs listed below may not be affiliated with AARP. Any information you provide to the host organization of these programs will be governed by its privacy policy.*

**Alzheimer’s Association:** The Alzheimer’s Association leads the way to end Alzheimer’s and all other dementia — by accelerating global research, driving risk reduction and early detection, and maximizing quality care and support. For more information, view [www.alz.org](http://www.alz.org) or call the 24/7 Helpline at 800.272.3900.

**Alzheimer’s Foundation of America:** Provides caregivers, families, and individuals with resources related to Alzheimer’s disease and dementia, screenings, training, and continuing education. Access is free. Membership options are also available. [alzfdn.org](http://alzfdn.org)

**National Institute on Aging:** Find science-based information on health and aging as well as Alzheimer’s disease. [nia.nih.gov/health/cognitive-health](http://nia.nih.gov/health/cognitive-health)

**Us Against Alzheimer’s:** Peruse the pioneering initiatives and programs this organization offers and implements that are aimed at stopping Alzheimer’s disease by 2020. [usagainstalzheimers.org](http://usagainstalzheimers.org)