

# Know Brainers

Simple tips for strengthening brain health in daily life



CENTER *for*  
**BRAINHEALTH**®  
THE UNIVERSITY OF TEXAS AT DALLAS



Enjoy these brain-healthy tips for everyday life, backed by science that demonstrates the brain's lifelong ability to work better and get stronger. At any age, tending to our brain's health and fitness is a Know Brainer! Find out more at **[centerforbrainhealth.org](https://centerforbrainhealth.org)**.

# How can you engage 100% of your brain?



## SCIENCE SAYS:

Each day, most humans use nearly 100% of the brain.

Today's neuroimaging reveals the profound impact of the expansive frontal lobe, once thought to be a "silent area" of the brain and now evidenced as a trainable (and retrainable) powerhouse for higher-order thinking.

## WAYS TO BEGIN:

- Learn new hobbies and new ideas – to build and strengthen neural pathways.
- Step back from drama to give full attention to what is most important.
- Take time to play – engage in puzzles, games, art and other creative pastimes, sometimes with a friend.
- Leverage your working memory – like using mnemonic devices or visual cues as reminders.

# How can diet strengthen your brain health?



## SCIENCE SAYS:

The same foods that support a healthy heart also support a healthy brain. Whole foods rich in nutrients, omega-3 fatty acids and antioxidants help strengthen blood vessels and functions throughout the body, forming the basis for a brain-healthy daily diet.

## WAYS TO BEGIN:

- Maintain a food log to track what you eat.
- Enrich your daily diet by filling nutritional gaps.
- Replace saturated fats with plant-based proteins and healthy fats.
- Consult a nutritional specialist before implementing broad dietary changes.

# How can failure help you realize potential?



## SCIENCE SAYS:

Ruminating over failures with a negative lens is bad for brain health. What a failure means to your brain is all about your perspective. Identifying ways to learn and move forward in a positive direction, from wherever you are, ignites higher-level thinking and innovation.

## WAYS TO BEGIN:

- Reflect about other possible options.
- Anticipate how you can apply this knowledge.
- Manage stress: Breathe, get outdoors and rejoin the moment.
- Find the humor, or quiet beauty, within less-than-perfect situations.

# When is your brain's "prime time"?



## SCIENCE SAYS:

Your brain works differently throughout the day.

Your daily "prime time" – when you feel the most mentally sharp – may depend upon age, sex, lifestyle and environment. Listening to your natural rhythm helps reserve "prime time" for deep, focused thinking.

## WAYS TO BEGIN:

- Evaluate which tasks require intensive thinking.
- Keep a journal to learn about your patterns.
- Schedule tricky tasks during your brain's "prime time."
- Recharge your focus with five-minute brain breaks (five times each day).

# How can perception boost your brainpower?



## SCIENCE SAYS:

A shift in mindset, even one from negativity to neutrality, rewires the brain and increases mental flexibility – but only when this shift becomes habitual. Being mindful to recognize and reframe negative thoughts allows you to exert some control over your own brain health.

## WAYS TO BEGIN:

- Seek out new ways to show kindness.
- Be intentional in recognizing and stopping negative ways of thinking.
- Avoid negative assumptions.
- Take time to pause and refocus, perhaps by meditating or keeping a gratitude journal.

**Why not take a 5-minute  
brain break right now?**



## SCIENCE SAYS:

Taking a few minutes to disengage throughout the day helps downregulate stress and recharge mental energy, boosting your inspired, innovative thinking. Too much time focused on work induces fatigue and distraction and reduces overall productivity.

## WAYS TO BEGIN:

- Clear your mind.
- Take a relaxing walk.
- Turn off the radio during your commute.
- Remind yourself to take breaks using a timer or time management app.

# How can work become brain-healthy?



## SCIENCE SAYS:

Focusing on one task at a time helps improve brain synchrony. The Hebbian learning rule observes that "cells that fire together wire together." When neural pathways repeatedly and persistently activate together, memories and associations forge.

## WAYS TO BEGIN:

- Start small, and gradually build strength.
- Silence technology and eliminate other distractors.
- Take brain breaks in between chunks of time spent single-tasking.
- Appreciate your ongoing efforts to increase mindful focus and attention.

# How can empathy boost your brain health?



## SCIENCE SAYS:

Mental flexibility activates robust frontal lobe functions.

A true exploration of different perspectives requires kindness and efforts to find common ground through deeper understanding, practices that elevate well-being and stimulate the reward center of the brain.

## WAYS TO BEGIN:

- Put yourself in other people's shoes.
- Learn about different viewpoints, cultures and experiences.
- Listen to other perspectives fully and objectively before forming conclusions.
- Show kindness to people in your community as a volunteer or good neighbor.

# Can silence leverage innovative capacity?



## SCIENCE SAYS:

The resting brain is still active, so pushing through mental walls may not yield the best results. Downtime frees the default mode network from external distractions and allows unconscious thinking to take over, increasing the chances of an “aha!” moment.

## WAYS TO BEGIN:

- Make conscious choices to step back from stimuli.
- Disconnect from technology and sounds for at least five minutes.
- Seek out ways to connect with others between intervals of silence.
- Embrace the newness of silence through calming activities, like meditating or journaling.

# How can you optimize your brain chemistry?



## SCIENCE SAYS:

Stress elevates levels of noradrenaline (norepinephrine), an essential part of the fight or flight response. Too much of this neurotransmitter disrupts brain functions, but just 30 seconds of long, slow breathing can lower your noradrenaline.

## WAYS TO BEGIN:

- Seek out positive ways to connect with others.
- Create an antidote for burnout with achievable goals and benchmarks for rewards.
- Practice self-affirmation: Remember your values and who you are in difficult times.
- Start new tasks by breathing: Breathe in for a count of 5, and out for a count of 6.

# Can physical exercise strengthen your brain?



## SCIENCE SAYS:

In addition to other brain-healthy benefits, raising your heart rate through regular aerobic exercise can increase the size of the anterior hippocampus, the part of the brain involved in verbal memory and learning, and the delivery of oxygen to the brain.

## WAYS TO BEGIN:

- Go for a daily walk or approach some chores as exercise.
- Join others in low impact exercise or a safe sport.
- Track your progress and set goals.
- Check with your doctor before making broad changes to your fitness regimen.

# How do connections create purpose?



## SCIENCE SAYS:

People are wired for connection. When you enjoy interactions with friends, multiple brain networks activate, influencing memories, strengthening neural pathways, elevating your mood and decreasing your stress response.

## WAYS TO BEGIN:

- Be thankful for friends and loved ones.
- Listen with empathy, being present in the moment.
- Savor small moments that offer chances to create or restore connections.
- Take time to nurture and grow the most important relationships in your life.

# How does generosity impact your brain?



## SCIENCE SAYS:

Generosity activates the pleasure center of the brain, helping reduce stress hormones. Studies have even shown a decline in mortality, along with increased happiness and psychological well-being, among people who support the causes they passionately care about.

## WAYS TO BEGIN:

- Identify genuine prosocial motivations – what do you really care about?
- Seek out a variety of ways to give – cast a wide net with your generosity.
- Give meaningful experiences – foster positive interactions and forge shared memories.
- Remember kindness is contagious – when you give, you show others why giving makes a difference.

# Why does laughter make your brain feel better?



## SCIENCE SAYS:

The excitement of connecting with a joke sets off a process of rigorous brain connectivity and rewards your brain with dopamine, the feel-good hormone, and other neurotransmitters that can help strengthen social bonds and enhance feelings of well-being.

## WAYS TO BEGIN:

- Listen in the moment to discover humor.
- Cut loose when you share a funny story.
- Collect inoffensive jokes to help diffuse life's awkward moments.
- Find connections through empathy – seek out shared experiences and kindness.

# What can you discover in nature today?



## SCIENCE SAYS:

Being in nature has a profound impact on your brain. Spending time outdoors in a natural setting can help reduce the stress hormone cortisol and feelings of anxiety – while boosting dopamine levels that tend to increase happiness, attention, creativity and wonder.

## WAYS TO BEGIN:

- Explore a nearby park.
- Trek through nature trails.
- Spend at least 20 minutes outside each day.
- Seek out aspects in nature (big and small) that you find uniquely beautiful.

# How can gratitude influence your brain?



## SCIENCE SAYS:

Feelings of gratitude can create a positive cycle and boost personal happiness. Research shows feeling thankful can increase serotonin and dopamine levels, boosting emotional well-being and reducing stress, even if you do not share your appreciation with others.

## WAYS TO BEGIN:

- Reflect on what makes you take pause and feel deep appreciation.
- Be intentional in taking time to share or document why you feel thankful.
- Practice active listening and calming strategies for being present in each moment.
- Make gratitude a habit to create a cycle of seeking out positive perspectives.



## About Center for Brainhealth

Center for BrainHealth®, part of The University of Texas at Dallas, is a translational research institute committed to enhancing, preserving, and restoring brain health across the lifespan.

Over 25 years ago, we began conducting leading-edge scientific research to define, measure and improve brain health across the lifespan – empowering all ages to unlock their brain potential. Our translational programs build on Strategic Memory Advanced Reasoning Tactics (SMART™), a proprietary methodology developed and tested by BrainHealth researchers and collaborators over three decades, and our innovations include our BrainHealth Index, the world's first holistic measure of brain health.



