# Brain Health 101

Challenge Workbook



## Table of Contents

Welcome	Make a plan and move forward beyond the Brain Health 101 Challenge.	<u>1-2</u>
Ongoing Exercise	Set goals and track your progress one step at a time.	3-5
Eat Right	Add brain-healthy foods to your diet and swap out unhealthy choices.	<u>6-8</u>
Engage Your Brain	Learn more new ways to keep your mind active and alert.	<u>9-10</u>
Restorative Sleep	Clean up your bedtime habits to get the most out of your shut-eye.	<u>11-14</u>
Manage Stress	Practice some novel ways to manage stressors.	<u>15-17</u>
Be Social	Explore how to build more relationships and add diverse social interactions to your life.	<u>18-20</u>
Brain Health for Life	Keep going and growing for the rest of your life.	<u>21-24</u>

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### It's not called a challenge for nothing!

Changing habits and adopting new ones is a challenge. This companion workbook is here to help you succeed.

#### Here's how it works:

- You'll apply what you learned in the Brain Health 101 Challenge and use that knowledge to build a lifelong plan to a healthier lifestyle.
- Each section in this workbook recaps key takeaways from the six pillars of brain health, then asks you to list practices you've already taken up from the Challenge.
- Finally, you'll learn how to adopt new practices that will move you forward to meet your goals.



# Ask Yourself: Brain-Healthy Habits

First, where are you now after completing the Brain Health 101 Challenge?

Answer these questions:



Which habits have you learned are good for your brain?
Which are now a regular part of your routine?
Which are not things you do very often?
Of these that are not part of your routine, which could you realistically adopt in the next few weeks?

Now, let's get started with the first pillar, Ongoing Exercise.

# Ongoing Exercise

#### **KEY TAKEAWAYS**

#### You learned about exercise in the Brain Health 101 Challenge:

- Regular exercise can help stave off changes that happen in your brain as you get older and help you hold on to memory and thinking skills
- It's never too late to take up exercise that may benefit your brain and body
- All types of workouts potentially offer rewards for the brain, so mix it up



## Ask Yourself

What's my current exercise routine?
How much more time do I have to give to exercise (so I can build up to 150 minutes a week)?
What's my starting goal for today or this week? You may want to think in terms of minutes, varie or how hard you are exerting yourself

Please consult with your healthcare provider before adopting new health practices or physical fitness routines.



## Never Too Little, Too Late

If you haven't yet begun, make a plan to start today.
You're never too old to exercise, and any amount is beneficial.

- If you can't fit 30 minutes of physical activity at one time into your schedule, it's OK to break it up into shorter sessions of 10 minutes each.
- When you begin strength training, start with just your body weight (such as with lunges, push-ups and sit-ups) before you move on to weighted equipment. When that feels easy, it's time to progress.
- If you stick with it, what you find challenging today will feel easy in the near future.



## How To Adopt a New Exercise Habit

Five key factors predict whether you'll continue and stick with an exercise plan.

**Enjoyment** – Pick a form of exercise that you like and will keep doing.

**Confidence** – You'll stick to an activity if you feel like you know what you're doing. Get a friend, family member, trainer or gym staff to teach you how to use the equipment or show you proper form.

**Social Support & Accountability** – Exercise with friends, family or a group. You are more likely to stick with your plan when you have support and when someone expects you to show up.

**Integration into Daily Routine** – Put your workout on your calendar or in your smartphone to strengthen your commitment to it.



Exercise muscles releases proteins in the blood that are carried to the brain and may help the brain regenerate.



The antidepressant effect of running leads to the growth of new cells in the hippocampus, a brain region that plays a big part in learning and memory.

#### **KEEP GOING!**

Walk Your Way to a Better Memory

<u>6 Ways to Get Past the</u> <u>Excuses and Start Moving</u> Work Small Bouts of Exercise Into Your Day



### Mix It Up

Working out can bring many benefits to the brain. Make a plan to try a different type of exercise every week.

Decide what you'll do for each type of exercise (or follow the plan shown below). Place a check mark next to the workout after you've done it and try a new one the next week.

	Examples	My Plan	<b>✓</b>
Aerobic	Plan a long bike ride for a Saturday morning.		
Strength	See how many push-ups I can do.		
Stretch	Find a guided stretch routine online.		
Balance	Do a short video of tai chi for beginners. Search on YouTube.		
New Activity	You decide! What activity would you like to try?		
Activity	would you like to try?		

come back to check in on://	
How'd you do? How will you move forward? What's your next step? (Example: I started out with a 10-minute walk three days a week. Now I'm going to increase to 20 minutes.)	

**Don't get discouraged.** Research shows it takes an average of 66 days to make a new practice a habit. And it could take as many as 254 days, so keep pushing!



#### **KEY TAKEAWAYS**

## In the Brain 101 Challenge, yo<mark>u learn</mark>ed about nutrition and healthy eating:

- What you feed your body, you feed your brain
- A heart-healthy diet is a brain-friendly diet. Emphasize plants, including leafy greens and berries, and lean protein, and limit red meat, saturated fat and added sugar
- The brains of people who eat healthy foods most of the time may age more slowly than those of people who consume less nutritious foods

### Ask Yourself

How healthy is my diet?	
Which brain-friendly foods described in step 3 grains, leafy greens, berries and fatty fish)?	of the <b>Challenge</b> do I always eat (such as whole
Which do I never eat?	
What's a realistic swap (exchanging an unhealth	y food for a healthy one) that I could make this week?

### A Healthy Diet Nourishes Your Brain

**There's no secret to a brain-friendly diet**. An overall healthy diet is good for your brain.

Make a plan to integrate more fruits and vegetables, whole grains, fish and other healthy fats and to reduce your intake of red meat, and try healthy spices in place of salt. Fill in the chart with your ideas.

	Examples	My Plan
<b>Vegetables</b>	Replace potatoes or fries with a leafy green one day this week.	
Fruits	Swap one salty snack out for a handful of berries.	
Fish	Replace another meat with a serving of mackerel or salmon this week.	
Whole Grains	Replace white rice with brown rice, or white bread with whole wheat.	
Spices	Use less salt at dinner one night, and experiment with spices.	
Come back to check How'd you do? (What	in on: / / t have you accomplished so far? How wo	uld you still like to improve?)
•	orward? What's your next step? (Example past few weeks. Now I'd like to try other i ce a week.)	

## Heart-healthy Foods = Brain-friendly Foods



Blueberries & Strawberries More of these throughout life may slow the loss of thinking skills by up to 2.5 years.



# Green Leafy Vegetables One serving is linked to a lower risk for dementia.



#### **Whole Grains**

The B vitamins in whole grains, like whole wheat bread and brown rice, may help preserve brain function.

### QUIZ: Good Fats vs. Bad Fats

**Fat isn't all bad; your body and brain need it for fuel.** Good fats help build cells and protect nerves. Bad fats can clog up your arteries and slow blood flow, including to your brain. Do you know which of these foods contain good fats and which ones contain bad fats? Put an X in the correct column.

Food	Good Fat	Bad Fat
Steak (and other red meat)		
Whole milk (and other full-fat dairy)		
Olive oil (also soybean, canola and peanut)		
Prepackaged baked goods		
Avocado		
Salmon (and other fatty fish)		
Margarine		
Most nuts		
Soymilk		
Flax, chia and sunflower seeds		

1TO 2

Number of servings of fatty fish it takes each week to get brain benefits.



Number of weekly servings of seeds (sunflower, etc.) that can reduce the body inflammation connected to many chronic diseases.

Answers: Steak – bad; whole milk – bad; olive oil – good; prepackaged baked goods – bad; avocado – good; salmon – good; margarine – bad; nuts – good; soymilk – good; seeds – good

#### **KEEP GOING!**

Stay Hydrated to Support Brain Health <u>Practice Two Brain-</u> Friendly Days of Eating

Make It the Mediterranean Way





### Ask Yourself

When was the last time I learned to do something new?	
Am I more likely to pass the time with TV or do I choose activities like reading, cooking from a recipe?	solving a puzzle or
What's a realistic way that I could choose to stimulate my mind, rather than run	autopilot this week?

### Switch Off Autopilot; Switch on Your Brain

Make a plan to engage your brain. Opt out of activities that are second-nature to you and do something that requires you to think. Fill in the chart with mind-activating swaps you can make.

Old Activity	New Activity		
Shop at the same supermarket as always.	Go to a different supermarket where I'll have to look for all the things on my list.		
Watch TV.	Read a novel.		
Take the same route to work, church or the store.	Plan a new route before you leave the house.		

### Master a New Skill

Based on the things you already know and like to do, choose a skill to learn, practice and master. Bonus challenge: Learn the new skill or play the new game with a friend.

- If you like sewing try needlepoint, cross-stitch or knitting.
- If you like travel try a few lessons in the language of a country you've always wanted to visit.
- If you like cooking follow a recipe to make a type of cuisine, maybe from a culture different from yours, that you've never prepared.
- If you like crosswords practice and become good at another type of puzzle or game.



People over 50 who watch TV for 3.5 hours a day or more seem to lose verbal memory at a faster pace than those who spend less time in front of the tube.

#### **KEEP GOING!**

**Give Ballroom Start an Indoor Consider Learning a** Find a New **Dancing a Whirl Herb Garden New Instrument Hobby Online** 

StayingSharp.org



#### **KEY TAKEAWAYS**

#### Here's what you learned in the **Brain 101 Challenge:**

- · While you sleep at night, your brain clears out waste and sorts and catalogs memories from the day
- Your brain needs enough sleep both to function on a day-to-day basis and to preserve brain function over time
- Long-term lack of sleep seems to increase levels of a protein linked to Alzheimer's

### Ask Yourself

About how much sleep do I get every night? How much sleep would I like to get?
How long does it take me to fall asleep? Do I sleep through the night?
Do I have any unhealthy habits that could be keeping me up? What are they?
What's a habit I could realistically work on changing this week?

## Sleep Diary, Pt 1

#### Did you find room for improvement in your sleeping habits?

**Let's dig deeper.** Keep track of your sleep for a week and find out exactly what you can change to help you sleep better.

#### Before bed each night, record the following information about each day:

	Su	М	Т	W	Th	F	Sa
# of caffeinated	АМ	АМ	АМ	АМ	АМ	АМ	AM
drinks and when	PM						
# of alcoholic drinks and when							
# of naps and when							
Duration of naps							
Total # of workouts	АМ	АМ	АМ	АМ	АМ	АМ	AM
and when	PM	РМ	PM	PM	PM	PM	PM
Duration of workouts							
How sleepy you felt that day 1(a little) - 3 (a lot)							
Medicines you took							
What time you went to bed							

# Sleep Diary, Pt 2

#### **Every morning, record the following information about the night before:**

	Su	М	Т	W	Th	F	Sa
How long it took to drift off to sleep last night							
What time you woke up this morning	АМ	АМ	АМ	АМ	AM	AM	АМ
What time you went to bed last night	РМ	PM	PM	PM	PM	PM	РМ
What time you got out of bed this morning	АМ	АМ	АМ	АМ	AM	AM	АМ
How many times you woke in the night							
How rested you felt in the morning 1(not)-3(very)							

Check back in one week on://	
How are you doing?	
Are there habits you could change to get bette night when I drink coffee in the afternoon. I'm swit	r sleep? (Example: I have trouble falling asleep at tching to decaf coffee or herbal tea after noon.)

### Create a Healthy Bedtime Routine

A relaxing regimen tells your body it's time to wind down for sleep. **Here's how to create yours:** 

- Follow the same steps, such as washing your face, brushing your teeth and putting on pajamas, every night to signal to your body that it's time to settle down.
- **Lower the lights.** When it gets dark, your body is better able to produce a hormone called melatonin that helps you sleep. Turn off overhead lights, dim your lamps, and power down your screens.
- Give yourself time to wind down with a calming activity (you might aim for 30 minutes before sleep). This should be a screen-free time. During this time you could read, write in a journal, stretch, take a bath, listen to soft music, meditate or do some other relaxing activity.
- Get into bed at the same time every night. But don't lie there tossing and turning. If it takes more than 20 minutes to fall asleep, get up, and resume your calming activity until you're ready to try to sleep again.

### Sweet Slumber

These techniques may help you calm your mind and fall asleep:

- Picture yourself asleep: Close your eyes and conjure an image of yourself sleeping peacefully.
   Or picture another calming scene. This is called guided imagery. It may take some trial and error to come up with the image that works for you.
- Worry at another time: If it's your to-do list that keeps you up at night, set aside a little time to think about these concerns earlier in the day. Jot down the problems you need to solve. This may help prevent stress from interrupting your sleep.
- Focus on your breathing: Turn all your attention to your breath. Imagine the air coursing through your body as you inhale and exhale. Often, focusing intently on your breath helps you to let go of other thoughts that might keep you awake.

Percentage of people age 50 and older who say they don't get enough sleep.



#### **KEEP GOING!**

**Blow Off Insomnia** 

Clear and Calm Your Mind to Sleep Better Find Your Perfect
Sleep Temperature



# Manage Stress

#### **KEY TAKEAWAYS**

#### In the Brain Health 101 Challenge you learned:

- Constant stress leads to inflammation that may raise the risk for numerous chronic conditions, some affecting your brain
- You can't eliminate all stress from your life. Some stress is simply inevitable.
- You can soften the blow on your body with meditation, exercise and other stress management techniques



## Ask Yourself

On a scale of 1-10, what's my stress level on an average day?						
Are there unnecessary stressors in my life that I could eliminate?						
Do I have a healthy habit to help manage the stress I can't eliminate? What is it?						
Is there a stress management technique from the Brain Health 101 Challenge that I could realistically try this week?						

## Take Control of Stress

Did you identify a stress management technique from the Challenge that you could reasonably take on this week?

**Try this:** Set aside a few minutes each day to reduce stress. If you already know which technique(s) you prefer, schedule the same one for each day. If not, explore and try a new one every day.

Examples:	SUN	MON	TUE	WED	THU	FRI	SAT
Mindfulness meditation							
Take a walk							
Yoga or Tai Chi							
Workout							
Laugh along to a funny video							
Check back in one week on://  How did you do?							
Which technique was most enjoyable or most effective?							
How can you incorporate it into your daily routine?							

### The Good and the Bad

#### **Make a plan** to manage your stress.

Short-term stress that lasts minutes or hours may boost your immune system. Constant stress over months or years, on the other hand, may cause inflammation that can make you more disease prone. Here's some examples of what could cause good and bad stress.





"Good" Stressors	"Bad" Stressors
You're late to work; better hurry or you'll miss the morning meeting.	You've been under pressure at work for years. It affects your sleep and your mood.
You're throwing a party on Friday, and you've still got a lot to do.	You are in an unhappy marriage.
You're studying for an important exam.	You are still affected by childhood trauma.
	You are the primary caregiver for a sick parent and have no time for yourself.



Stress is bad for your health.

Not always. Short-term bouts of stress are good for you and may boost your immune system.



FACT. Some people can function well under extreme chronic stress. Others are less resilient, but people can learn how to respond better to stress.

#### **KEEP GOING!**

**Try Forest Bathing** 

**Get Stress Squared Away** 

**Watch a Top Comedy** 



# Be Social

#### **KEY TAKEAWAYS**

In the Brain 101 Challenge you learned about being social and making connections:

- The brain thrives on social interactions
- People who are lonely tend to lose their thinking skills faster as they age
- Research shows that social activity, a strong network and access to social support can all help maintain brain function



Do you have a social life?
How often do you socialize in person, online or by phone?
What types of social interactions are most meaningful, most purpose-giving for you?
What's a simple way that you could incorporate one more social activity into your life this week?

### **Get Social**

Did you identify areas where you could improve your social life? Make a plan.

Keep a log of each of these social interactions when you have them or set them up this week.



Activity	Date	Details
Call a friend to catch up.		
Get together with a friend in person (or by video).		
Make a new friend.		
Attend an in-person or video-based group activity (such as, a lunch, a book club, or an exercise class).		
Volunteer (such as. at a soup kitchen, an animal shelter).		
Check back in one week on://  How did you do?	_	
How can you progress? (Examples: organize attend an invent where you'll know few peo	_	•

### Purpose-Driven Life

You can form new friendships and create **lasting bonds with people** who share your values, an interest or a common purpose.

Try getting involved with a group or organization dedicated to a cause that matters to you. Take a few minutes to reflect on what gives you purpose. What kind of activity fulfills you? Feels meaningful? (Examples: making something with your hands; helping others; protecting the environment; continuing your education; caring for animals; traveling.)





Can you find a way to turn that purpose-giving activity into a social activity?



Social activity is just for fun and doesn't have actual health benefits. Not so. In fact, people who are loneliest tend to lose their thinking skills faster as they age.



FACT: Doing something purpose-giving, like tutoring or volunteering, can help increase brain activity.

#### **KEEP GOING!**

**Stay in Touch With Loved Ones Virtually**  Send a Smile

Giving Back Can Help **Some Discover Purpose** 



# Brain Health for Life



#### **KEY TAKEAWAYS**

In the Brain 101 Challenge, you learned about the benefits of developing lifelong brain healthy habits:

- Many of the risk factors for dementia are within your control
- You can set SMART goals to reduce your risk and take control of your brain health
- You're never too old to improve your brain health

### Ask Yourself

You've been working hard to try out and adopt some new habits. Let's see where you stand.

Do I get 150 minutes of moderate physic	Yes	No		
Does my diet promote my brain health?	Yes	No		
Do I get at least seven uninterrupted hou	urs of sleep ever	y night?	Yes	No
Do I have an effective outlet for stress?	Yes	No		
Is social activity a priority for me?	Yes	No		

### Be Smart, Set SMART Goals

Now that you know where you stand, **set goals to get yourself to the next level** and practice the pillars of brain health for life!

Experts who help people establish and achieve personal or professional objectives often suggest that you set a SMART goal. That stands for specific, measurable, achievable, relevant and time-bound.



**Specific**, for example, would be "Exercise for 25 minutes, five days a week," as opposed to "Exercise more." Five days a week for 25 minutes is **measurable**, too. You have a specific number to hit so that you know you've kept your commitment.

An achievable goal is one that you have the skills and the physical capability to do. Relevant means that the specific achievable goal aligns with your larger aim to, say, live va long and healthy life.

**Time-bound** means that you give yourself a deadline by which you want to achieve the goal, rather than just the intention to "get around to it."

	Specific	Measurable	Achievable	Relevant	Time-bound
Example	Walk briskly.	25 min, 3 days/wk	Yes, I now walk 15 min, 2 day/wk	Yes, I want to build up to 30-min walks	For 4 weeks, then progress
Exercise					
Eat					
Engage					
Sleep					
Reduce Stress					
Socialize					

### Five Activities that Exercise Your Brain



**Learn a new dance**It forms new connections in your brain.

#### **Expand your vocabulary**

When you learn a new word – perhaps unknown ones you come across when you read – you exercise numerous parts of your brain.





Work a jigsaw puzzle

This task puts multiple thinking skills to work at once and may help protect spatial memory.



Besides its effects on your mood, music can help you think outside the box and generate creative solutions to problems.





Redecorate or rearrange

Move the furniture, change the art on the walls, or re-paint. Even small tweaks to your everyday environment may promote new brain cell growth.

### Make Changes Now

#### 8 Health Risks It's Not Too Late to Address to Maintain Optimum Brain Health



- Get your hearing loss treated
- Use diet and medication to get your blood pressure under control
- Keep your alcohol consumption below two drinks or fewer a day for men or one drink or fewer for women, on days when you imbibe

- Keep your weight under control with diet and exercise
- 5 Quit smoking
- 6 Get help for your depression
- Prioritize your social life
- Keep moving

#### **KEEP GOING!**

Create a Fitness Goal
That Is SMART

Take an Exotic

Armchair Vacation

6 Simple Ways to Nurture Memory



# Congratulations!

### You've completed the Brain Health 101 Workbook

and are on your way to improving your brain health for the rest of your life!

The adult human brain weighs about 3 pounds, is about 2 percent of total body weight, and contains about 86 billion neurons.

You use all of your brain – not just 10 percent, as a common myth states – and it is always active.



**Take the** <u>Brain Health 101 Challenge</u> with neurosurgeon and CNN chief medical correspondent Sanjay Gupta, M.D., and learn about the healthy habits that support brain health.

