

LECTURE 9

Brain Health As We Age: TOP 10 RECOMMENDATIONS

COMPANION WORKBOOK



I CARE
FOR YOUR BRAIN
with Dr. Sullivan



The EAR & BRAIN

CONNECTION...

3X

2X

Those with mild hearing loss are **TWICE** as likely to develop dementia.

Those with moderate hearing loss are **THREE TIMES** as likely to develop dementia.

“A lot of people ignore hearing loss, because it’s such a slow and insidious process as we age. Even if people feel as if they are not affected, we’re showing that it may well be a more serious problem.”

—DR. FRANK LINN, JOHNS HOPKINS MEDICINE

Those with severe hearing loss were nearly **FIVE TIMES** as likely to develop dementia.

5X

Audiology of the Sandhills



KATE TUOMALA
M.A., CCC-A, F-AAA
Owner/Founder

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Oh, how I have enjoyed our time together!

Eight lectures, and almost 10 hours of learning later, here we are fortified with a new understanding of ourselves, each other and our miraculous brains.

If you have been applying the evidence-based recommendations made in this program, then we have accomplished the two things I promised you at the beginning of this brain health journey: you have reduced your modifiable risk factors for less than optimal brain health and increased your cognitive reserve! That is powerful stuff, and you should be proud!

In this final lecture, we will review the reasoning behind my Top 10 recommendations for brain health from optimizing your senses, the power behind exercise, prioritizing uninterrupted sleep and the urgent need to reduce chronic stress, to being socially and meaningfully connected to others on your terms. If you haven't put the recommendations into practice in your everyday life yet, this is the perfect time to re-commit to self-care.

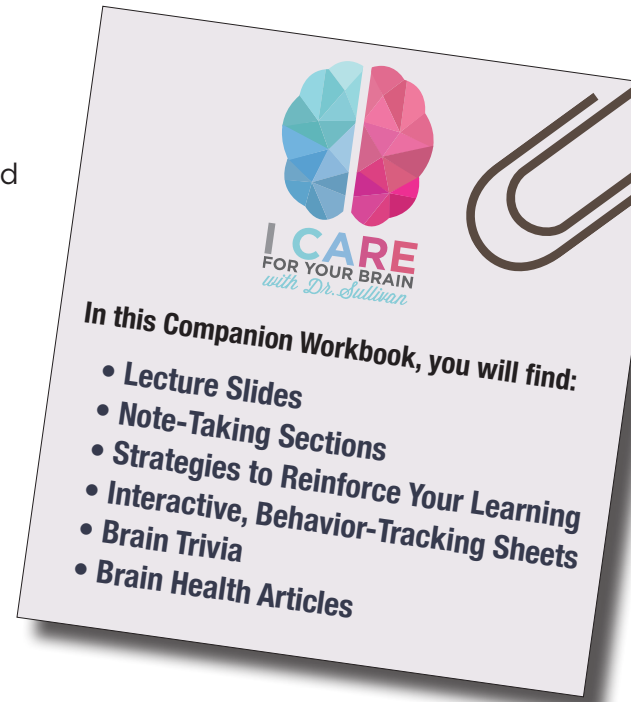
Throughout my journey from caregiver to board-certified neuropsychologist, my guiding question has always been: How can I best serve? Through the I CARE FOR YOUR BRAIN program, my goal is to serve you—your brain health and overall well-being—by empowering you with objective information that allows you to make the best decisions for yourself.

Thank you so very much for listening and learning with me. It has been an experience I value deeply and will remember fondly for many years to come.

Respectfully,

Dr. Karen D. Sullivan

P.S. If you haven't already, please consider joining our online community on Facebook (@icareforyourbrain) or YouTube (I CARE FOR YOUR BRAIN with Dr. Sullivan channel), so you can continue to have access to science-based brain health information.





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YOUR BRAIN
with Dr. Sullivan
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(Cut these out and place on your refrigerator door, mirror or anywhere you would like to inspire and motivate your positive lifestyle changes for optimal brain health.)

I CARE FOR YOUR BRAIN

was founded on the belief that successful cognitive aging is more than just brain health. It is a multi-dimensional concept that in addition to being brain-based is also rooted in physical health, social and spiritual connectedness, and vital engagement in life.

It is a state-of-the-art, brain-centric education program for the 50+ crowd delivered in an engaging, easy-to-understand style that is motivating for action!

Through two interactive communities (in-person and online), Neuropsychologist Karen D. Sullivan, PhD, ABPP, provides scientifically-based information on what brain scientists know are the pillars of brain health and evidence-based recommendations in a series of nine lectures. Dr. Sullivan provides you with clear, proven action steps you can take to immediately start to truly care for your brain.

**Sign up online today
at www.ICFYB.com.**

Watch Dr. Sullivan's
Facebook LIVE Mini
Brain Health Lectures



**JOIN our FREE
Facebook
Community Today!**

THINK
like a
**BRAIN
SCIENTIST!**

I CARE
FOR YOUR BRAIN
with Dr. Sullivan

**“Love the
information!
Simple and
powerful.”**

**What
will you
say?**

Let's get started!

TOP 5 VALUES

that inspired
I CARE FOR YOUR BRAIN

1

We are not merely brains.

Brain health must occur with the understanding that we, as dynamic beings, cannot be reduced to a three-pound organ of gray and white matter and neurons. Brain health can only truly occur when our humanness is embraced, and we make contributions to all aspects of health, including cognitive, physical, emotional, social and spiritual.





2

We are interconnected social and spiritual beings.

Meaningful interpersonal relationships and connection to spirit and nature must be respected and cultivated if we are to be genuinely “brain healthy.” We, including our brains, are designed to be interpersonal and seek connection.

3

Engagement with life is the best brain game.

Despite what the “brain fitness” industry would have us believe, playing games and taking supplements alone in your home is contrary to what brain scientists, not marketers, know truly stimulates the brain and increases our cognitive reserve: complex interaction with this beautiful gift called life!

4

Brain health happens best in community.

The protective social networks, life-affirming relationships and cognitive stimulation offered in intentional communities provide a firm foundation for attaining true brain health in all its dimensions. Isolation is one of the biggest threats to brain health with age, making where we live really matter.

5

Science-based knowledge is empowering.

Without fear and lack of knowledge, the “brain fitness” industry loses two of its most powerful ways of manipulating you into thinking their meritless products work. A brain health education based on science, not hype, puts you in the driver’s seat so you can make your own informed decisions for a true return on your money, time and hope investments.

Why Do We Fear DEMENTIA

BY KAREN D. SULLIVAN, PHD, ABPP

If you have been with me throughout the I CARE FOR YOUR BRAIN education and empowerment journey, you know that the vast majority of the so-called brain health products on the market today are not based in sound science and use anxiety as their No. 1 selling technique. Marketers do this in two ways: They pathologize normal age-related cognitive symptoms, like forgetting why you walked into a room, suggesting it is an ominous problem that needs their too-good-to-be-true solution; and they capitalize on the widespread fear of dementia.


In a 2012 AARP poll, older adults were asked, “What disease do you fear most as you age?” One percent said diabetes, 4 percent said a heart condition, 10 percent said cancer and more than 70 percent said dementia. In another poll, older adults ranked their fear of dementia as higher than their fear of another 9/11-type terrorist attack or the fear of losing the use of all of their limbs. Brain experts hypothesize that dementia-related fear is partially based in negative, unfounded stereotypes about the condition, including these examples:

- **62 PERCENT** of older adults feel that a diagnosis of dementia would mean their life was over;
- **NEARLY 1 IN 4** thought that people who received a dementia diagnosis would instantly have to stop going out for a walk on their own;
- **50 PERCENT** thought they would have to immediately stop driving and worried people would think they were “crazy,” if they were to have dementia; and
- **68 PERCENT** reported they would no longer be the same person if they were to be diagnosed with dementia.

These stereotypes are based on two unfortunate truths:

People with dementia are often ignored and objectified.

When people living with dementia are interviewed, they tell us that they are often excluded from the social world and treated as if they are not there to the extent that some neuro-philosophers have named the disregarding that happens in dementia as a “social death” (Sweeting & Gilhooly, 1997). Research reports include:

- 
- **47 PERCENT** of people living with dementia say their biggest worry is how relatives and friends will react;
 - **MORE THAN HALF** of those with dementia surveyed felt dismissed and that others avoided spending time with them;
 - **MORE THAN 40 PERCENT** of people said social invitations decreased; and
 - **APPROXIMATELY 1 IN 4** people hide their diagnosis in the early stages, citing stigma as the reason.

Our brains are wired for social connection.

An important theme in our time together is the undervalued contribution that social health makes to brain health. We are hardwired to engage in deep and meaningful ways with one another, learning and supporting each other throughout the challenges and joys of living. Without social connection, several parts of our brain are not stimulated, and stress levels soar. The way many people with dementia are treated is simply abnormal and against our very humanness and surely contributes to the near-phobic response we have to this medical condition. No one wants to be disregarded and unseen.

Why has this happened?

There are three main reasons the treatment of people living with dementia has developed into its current state. First, there remains a general lack of knowledge about the brain, particularly dementia. Although 93 percent of older adults in one study were aware of the diagnosis of Alzheimer's disease, almost 75 percent said they "knew very little or nothing about it." A 2009 survey found that one third of the population continues to think dementia is a natural part of aging and 25 percent thought there was no way to reduce risk (both are incorrect!).

Second, there is a general lack of skill or knowledge about how to guide our interactions with people living with cognitive disorders. Many of us simply don't know what to do or say when someone repeats a story multiple times or has trouble finding their words to the point that meaningful conversation is difficult. Research shows that even hospital staff and caregivers lack the needed skills to optimally communicate and care for the needs of individuals with dementia, so where does that leave the general public?

Finally, we in Western cultures all too often define ourselves by our accomplishments and intellect. We are a “hypercognitive” society, as the medical ethicist Stephen Post called it, that values “smartness” and achievement. When we “lose” these forms of identity, we lose worth and the process of being ignored occurs.

An opportunity, an invitation

In the case of dementia, we have another case of once we know better, we have a responsibility to do better. If we accept that a portion of the reason we fear dementia so intensely is that people with dementia are ignored and objectified, then we have a job to do. Person-centered dementia care was introduced by Dr. Thomas Kitwood in the late 1990s. With great insight and compassion, his philosophy was based on the ethic that all human beings are of absolute value and on the conviction that people with dementia can live fulfilling lives. He wrote that people’s experience of dementia not only arises from biological symptoms but also from social factors and that stigma worsens dementia symptoms and quality of life through loneliness and social disconnection.

Do we have a personal, social and spiritual responsibility to be more inclusive and connect to people living with degenerative brain diseases? THE ANSWER IS YES.

Here are some ways you can do your part personally, socially, spiritually and to be a friend to someone living with dementia:

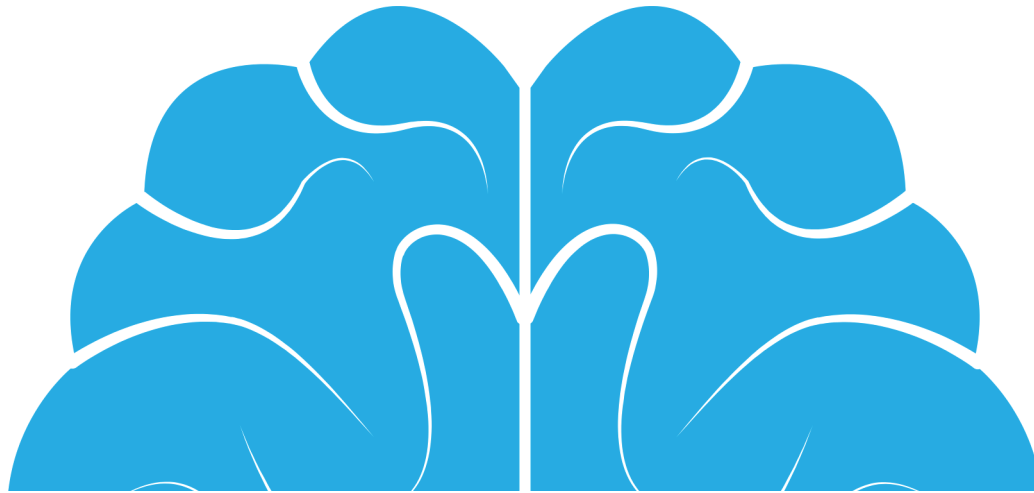
PERSONAL	SOCIAL	SPIRITUAL
<ul style="list-style-type: none"> • Introduce yourself with warmth, smile and be mindful of your body language. • Call the person by his or her name, and remind him or her how you know each other. • Speak a bit louder, clearly, slowly and allow time for the person to process and respond. • Listen for all signs of communication, not just words, and resonate with the emotion being expressed. 	<ul style="list-style-type: none"> • Don’t ignore a person with dementia, even if you think they may not remember you. • Genuinely ask the person and their caregiver how they are doing. What counts most is your sincere interest. • Bring the present of presence; your friendship and interest is truly the greatest gift. • Offer what support/help you can to a caregiver, with reliability. 	<ul style="list-style-type: none"> • Reflect on who we are called to serve and comfort. • Ask yourself if your faith community can provide leadership on new ways of providing hospitality and inclusion to persons living with dementia. • Can we offer the comfort of human presence and rejoice in the truth that there is nowhere we can flee from God’s love and presence (Psalm 139)?

[illegible]

Make the

- # I CARE FOR YOUR BRAIN

Sweeting, H. and Gilhooly, M. (1997), Dementia and the phenomenon of social death. *Sociology of Health & Illness*, 19: 93-117.



WHAT SHOULD THE FUTURE OF BRAIN HEALTH CARE OFFER?

BY KAREN D. SULLIVAN, PHD, ABPP



We are at the frontier of several impressive breakthroughs in brain science with awe-inspiring developments in stem cell and gene therapy specifically. No one would argue that these innovations aren't exciting and welcomed, but we cannot forget that while we await the next big research discovery, the need to advance clinical care remains. How is it that medical providers can provide progressive brain health care to people starting right now?

Here are three I CARE FOR YOUR BRAIN-approved improvements I would love to see in the future of clinical brain health care:

1 GREATER ACCESS TO NEUROPSYCHOLOGICAL EVALUATION:

Every person expressing concern about brain functioning should be offered a referral for a neuropsychological evaluation. The inclusive and data-driven approach offered by neuropsychologists is the gold standard for understanding brain function within the unique individual. It is only through a detailed review of medical records, in-depth interviews, and comprehensive paper and pencil testing can the cause/causes of a change in cognition or mood/behavior be identified and personalized recommendations be offered.

2 HIGH-QUALITY PATIENT EDUCATION:

Every person who has experienced a brain health concern, scare or event, either directly or vicariously, should receive high-quality education about the how, what and why. Not only is education the respectful thing to do, but it is also comforting as it provides a reason for what has happened and increases motivation to reduce risk factors that may have been associated with the issue. Education puts the patient in charge of their own health and reduces an unnecessary hierarchy between the “all knowing” doctor and patient.

3 VALUING THE EXPERTISE OF THOSE WITH BRAIN HEALTH CHALLENGES:

The best care happens when expertise comes from both the doctor, via clinical training and institutes of higher learning, and the lived experience of patients. Valuing the contribution of both kinds of knowledge, academic and real world, is a necessary starting point for optimal care. This type of collaboration requires medical providers truly listen to a patient’s stories and learn what it is like to be a person living with a brain that has experienced a stroke, traumatic brain injury or dementing illness.



- I have a right to understand my brain health in detail.
- I have a right to a thorough evaluation of my brain functioning.
- I have a right to the highest level of intervention for my brain and myself.
- I have a right to a referral to a neuropsychologist.



THE REVERSIBLE CAUSES *of* Cognitive Impairment

BY KAREN D. SULLIVAN, PHD, ABPP



One real-world impact I hope the I CARE FOR YOUR BRAIN program has provided is that you feel empowered to discuss any brain health-related concerns with your medical providers and advocate for a gold-standard work-up—a neuropsychological evaluation—to determine what is going on and what can best be done about it.

With more than 50 conditions mimicking the symptoms of dementia, a critical first step in evaluating cognitive or mood/behavior changes is to rule out potentially reversible causes.

The following eight reversible causes of dementia produce up to 23 percent of symptoms reported to primary care doctors (Clarfield, 2003) and are easily remembered by the mnemonic DEMENTIA (Tripathi & Vibha, 2009):

D

DRUGS (ANY DRUG WITH ANTICHOLINERGIC ACTIVITY)

E

EMOTIONAL (DEPRESSION, ANXIETY, POST-TRAUMATIC STRESS)

M

METABOLIC (THYROID DISORDERS)

E

EYES AND EARS DECLINING

N

NORMAL PRESSURE HYDROCEPHALUS
(ACCUMULATION OF CEREBROSPINAL FLUID IN THE BRAIN)

T

TUMOR OR OTHER SPACE-OCCUPYING LESION

I

INFECTION (URINARY TRACT INFECTION)

A

ANEMIA (VITAMIN B12 DEFICIENCY)

REFERENCES

Clarfield, A.M. (2003) The decreasing prevalence of reversible dementias: an updated meta-analysis. *Archives of Internal Medicine*, 163:2219-29.

Tripathi, M. & Vibha, D. (2009). *Indian Journal of Psychiatry*; 51(Suppl1): S52-S55.

LECTURE 9

Brain Health As We Age: TOP 10 RECOMMENDATIONS

- Lecture series focused on the brain health of older adults
- Evidence-based information and recommendations
- Supported by science and unbiased clinical expertise
- Motivating you to action!



Slide Presentation Begins

LEARNING TOPICS

- Overview of what we have learned in previous eight lectures
- Top 10 brain health recommendations



A full-body photograph of a middle-aged couple against a white background. The woman, with short grey hair, is wearing a light blue long-sleeved top and jeans. She is standing on the man's shoulders, leaning back with her arms raised in a 'V' shape, smiling broadly. The man, with grey hair, is wearing a grey V-neck sweater over a white collared shirt and khaki pants. He is leaning forward, supporting the woman, and smiling.

- # NOTES

[illegible]

A look back on where we have been **IN 10 SLIDES**

IN HEALTH AS WE AGE DEPENDS ON...



Our genes
Our environment
Their interaction

COGNITIVE RESERVE *(Stern, 2006)*



- Several prospective studies have reported that up to 25% of older adults whose memory was not significantly impaired in life meet criteria for Alzheimer's disease at autopsy (*Ince, 2001*)
- Our IQ, education, job experience, and participation in intellectually stimulating activities, particularly early in life, build stronger and more connected brain cells, which increases the resistance to brain damage of all kinds
- The more cognitive reserve, more brain disease needed to result in real-world impairment

WHAT IS DEMENTIA?



- Dementia is the loss of the ability to think, remember, or reason to the extent that it interferes with one's ability to do everyday activities, like driving, managing medications and/or finances.
- Occurs when once-healthy brain cells die or stop working well and lose connections with other brain cells
- Caused by different diseases in the brain

NOT ALL MEMORIES ARE DUE TO DEMENTIA

- Medications
- Alcohol
- Untreated sleep apnea
- Low Vitamin B
- Depression/Anxiety
- Thyroid
- Infections especially urinary tract infections
- Chronic pain
- Dehydration

A grayscale photograph of two hands, one from the left and one from the right, holding two interlocking puzzle pieces. The puzzle pieces are a solid, muted purple color. The hands are positioned as if they are about to snap the pieces together. The background is plain white.

Their interaction

NOTES

[illegible]

The diagram illustrates the relationship between Risk Factors, Level of Risk, and Protective Factors. It features three main components arranged horizontally:

- Risk Factors:** Represented by a red triangle with a black border and a black exclamation mark inside.
- Level of Risk:** Represented by a vertical stack of seven horizontal bars of varying colors (red, orange, yellow, green, light green, dark green, and light blue).
- Protective Factors:** Represented by a blue shield with a black border.

Arrows indicate the flow of influence: a red arrow points upwards from the bottom towards the Risk Factors, and a blue arrow points downwards from the top towards the Protective Factors.

[illegible]

RISK FACTORS FOR LESS THAN OPTIMAL BRAIN HEALTH

NON-MODIFIABLE	MODIFIABLE
<p>Age</p> <p>Family history</p> <p>Specific gene mutations</p>	<p>Hypertension</p> <p>Type 2 diabetes</p> <p>High cholesterol</p> <p>Untreated sleep apnea</p> <p>Hearing/Vision loss</p> <p>Too much alcohol</p> <p>Smoking</p> <p>Too little exercise</p> <p>Repeat head injury</p> <p>Poor diet</p> <p>Social isolation</p> <p>Low mental stimulation</p>

NOTES

[illegible]

COGNITIVE RESERVE *(Stern, 2006)*



- Several prospective studies have reported that up to 25% of older adults whose memory was not significantly impaired in life meet criteria for Alzheimer's disease at autopsy (*Ince, 2001*)
- Our IQ, education, job experience, and participation in intellectually stimulating activities, particularly early in life, build stronger and more connected brain cells, which increases the resistance to brain damage of all kinds
- The more cognitive reserve, more brain disease needed to result in real-world impairment

NOTES

[illegible]

as we age:

What Is Normal Vs. What Is Not

- ↓ Seeing and hearing
- ↓ Processing speed
- ↓ Multitasking
- ↓ New learning



Mild changes that do not interfere with everyday life

NOTES

[illegible]

WHAT IS DEMENTIA?



- Dementia is the loss of the ability to think, remember, or reason to the extent that it interferes with one's ability to do everyday activities, like driving, managing medications and/or finances.
- Occurs when once-healthy brain cells die or stop working well and lose connections with other brain cells
- Caused by different diseases in the brain

NOTES

[illegible]

DEMENTIA IS NOT JUST MEMORY LOSS

COGNITIVE	BEHAVIOR	DAILY LIFE
Short-term memory loss	Less interested	Trouble with money
Word-finding difficulties	Moody	Forgetting medication
Disorganization	More irritable	Driving decline
Loss of insight	Agitated at times	Cooking changes

NOTES

**early or accurately,
valuable time is lost to:**

- Begin medications that may reduce/slow symptoms
- Reduce modifiable risks that may contribute to memory decline or everyday impairment
- Receive education and support
- Connect to community-based resources
- Plan for the future

[illegible]

NOT ALL MEMORY SYMPTOMS ARE DUE TO DEMENTIA

- Medications
- Alcohol
- Untreated sleep apnea
- Low Vitamin B
- Depression/Anxiety
- Thyroid
- Infections, especially urinary tract infections
- Chronic pain
- Dehydration



NOTES

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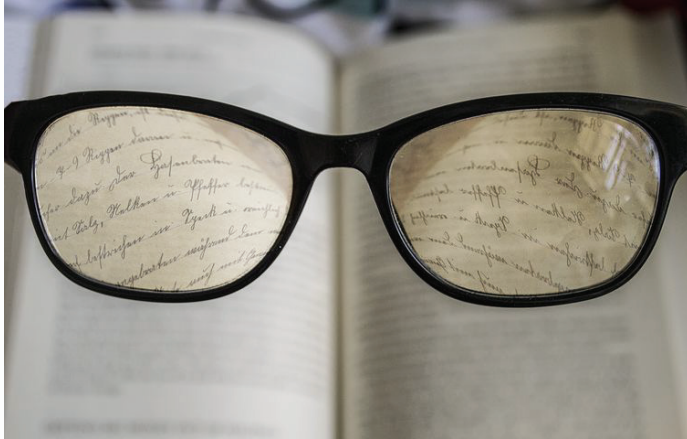
NOTES



I CARE
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with Dr. Sullivan

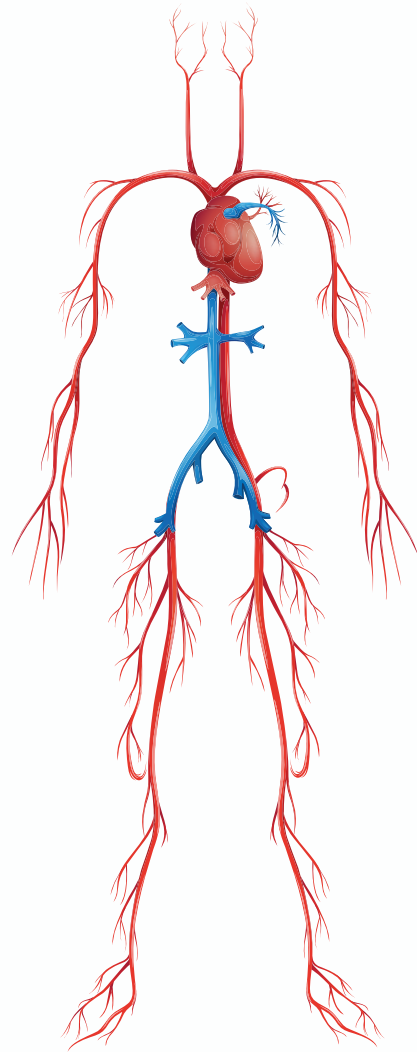
TOP 10
Recommendations

1. OPTIMIZE YOUR SENSES



NOTES

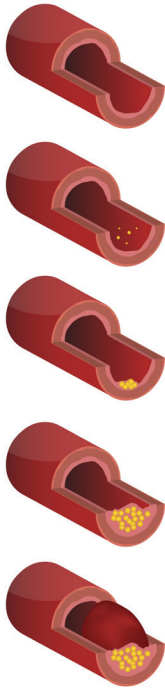
Reduce your risk of vascular disease



NOTES

[illegible]

HEART HEALTH = BRAIN HEALTH



Our brain makes up about 2-4% of our body mass but accounts for about 20% of oxygen (*Shulman, 2004*) and 50% of glucose use (*Fehm, 2006*).

Because our brain cells cannot store oxygen and glucose, they depend on the bloodstream to deliver a constant supply of fuel.

Smallest blood vessels are at greatest risk of vascular disease: eyes, feet, kidneys and brain.

NOTES

A woman with short blonde hair is captured in a dynamic running pose on a wooden boardwalk. She is wearing a blue long-sleeved athletic top with orange trim on the sleeves and collar, black leggings, and bright pink sneakers with yellow laces. The background features a scenic landscape with a calm lake, a dense forest of evergreen trees, and snow-capped mountains under a bright sky.

Direct benefits: Reduces insulin resistance, reduces inflammation, stimulates the growth of new blood vessels in the brain, parts of the brain involved in memory (prefrontal cortex and medial temporal cortex) are bigger in people who exercise versus people who don't.

Most everyone can move more!

[illegible]

4. EAT AN ANTI-INFLAMMATORY DIET

- Best evidence for Mediterranean Intervention for Neurodegenerative Delay (MIND) diet
 - A whole-foods diet low in saturated fat and simple carbohydrates, especially sugar
 - Reduce the foods you eat that are made with processed seed and vegetable oils (corn, safflower, sunflower, soybean and cottonseed oils) found in highly processed foods = most things in a box
 - Get your vitamins from foods.
- 
- A still life image showing a variety of fresh produce. In the foreground, there are several red and yellow bell peppers, a head of broccoli, and a bottle of yellow olive oil. Behind these, a wicker basket is filled with more items, including green grapes, red grapes, a yellow bell pepper, and some leafy greens. The background is plain white.



NOTES

[illegible]

5. BEWARE OF POLYPHARMACY

Polypharmacy (more than five drugs) is common as we age and increases the risk of adverse interactions.

With age comes changes in our body's ability to absorb, metabolize, and excrete substances.

Be particularly mindful of opioids, benzodiazepines, anticholinergic medicines, over-the-counters, especially any PM drug.

Tell your MD about everything you take, always use the same pharmacy, use a pillbox, and don't mix medications with alcohol.



NOTES

[illegible]

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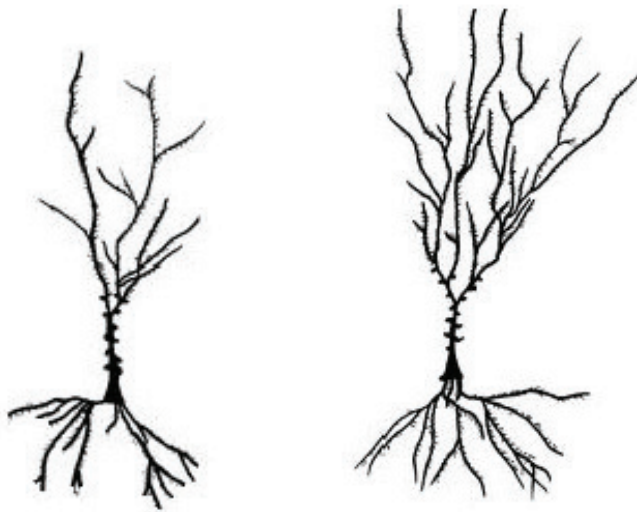
[illegible]

7. TREAT MOOD SYMPTOMS; REDUCE STRESS

Depression and anxiety have cognitive symptoms.

Stress hormones are only intended for short bursts.

Chronic exposure to stress hormones affects our well being on every level, including brain health, causes brain cells to shrink (*Davidson & McEwen, 2012*).



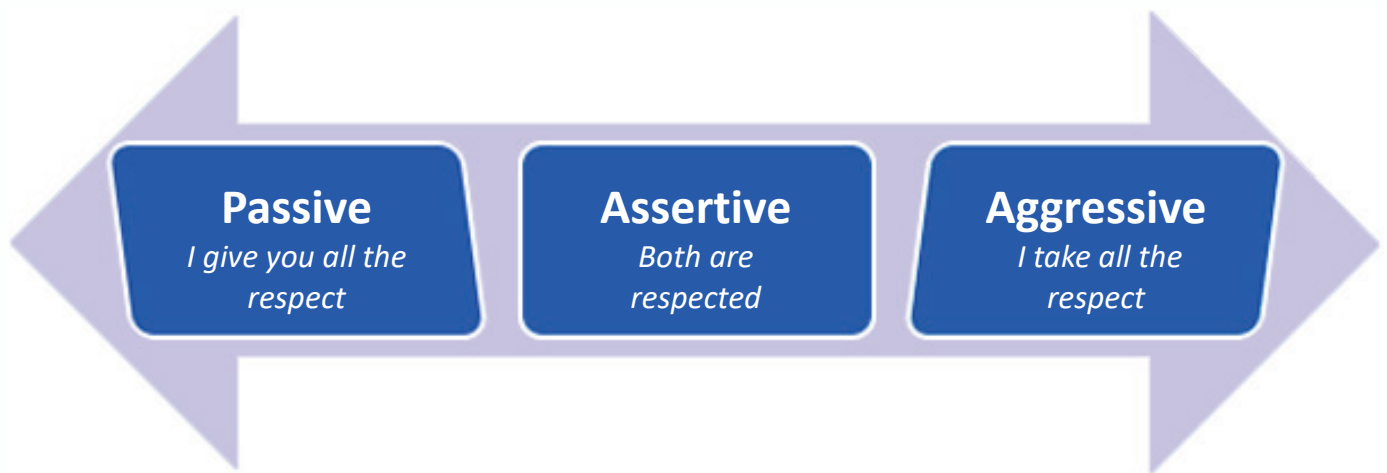
NOTES

Remember the threat vs. resources comparison

View a stressor as a challenge you can manage.

Most of our stress is interpersonal: Strive for the sweet spot of communication called assertiveness.

Definition: “Direct, honest, and appropriate ways of standing up for your rights while respecting the rights of others.”



NOTES

[illegible]

We are *what we think!*

How we think about ourselves and our abilities plays a significant role in how we feel.

Older adults do better on memory tests (and walk faster!) after they are shown positive words about aging (sage, wisdom) rather than negative words (senile, confused, decline).

Watch your words! Instead of saying, “I’m too old to remember that,” or “At my age, I’ll never remember that,” say something more positive that gives you control!

NOTES

8. MAKE DEPOSITS IN YOUR BRAIN BANK ACCOUNT EVERY DAY

Increasing our attention is one of the best ways to improve memory. Take an active interest in what's going on around you.

Revisit an old hobby or interest and add a new dimension to it.

- Over time, do it more.
- Over time, make it more difficult.
- Over time, make it more unique.



NOTES

[illegible]

Feeling lonely rather than being alone is associated with an increased risk of dementia in later life (*Holwerda, 2012*).

Being with other people is mentally stimulating!

[illegible]

10. BE A CAUTIOUS CONSUMER OF BRAIN HEALTH PRODUCTS

- Acknowledge that media reports/marketing about brain health are generally playing on your fears to sell you a product.
- Question “too good to be true” conclusions.
- Just because it’s natural doesn’t mean it’s safe; more isn’t necessarily better.
- Don’t be impressed with fancy brain words.
- Empower yourself with information!



NOTES

[illegible]

[illegible]

Program Completion



I CARE
FOR YOUR BRAIN
with Dr. Sullivan

*Congratulations
and Stay in Touch!*



It has truly been my pleasure
to be your guide on this
brain health journey!

But, let's not stop now! You
can continue your commitment
to science-based brain health
education and behavior change
by following me on my Facebook
page (@icareforyourbrain) or
YouTube (I CARE FOR YOUR
BRAIN with Dr. Sullivan channel).

Dr. Karen O. Sullivan

www.ICFYB.com





Dr. Sullivan's TOP 10 RECOMMENDATIONS

1

Optimize
your senses.

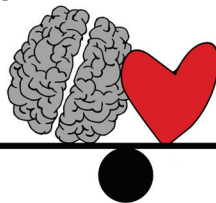


Prioritize
uninterrupted
sleep.

6

2

Reduce your
risk of
vascular
disease.

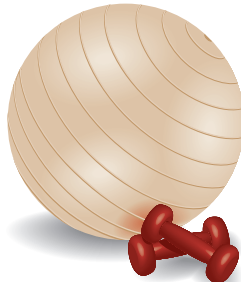


Treat mood
symptoms;
reduce stress.

7

3

Move your
body more.



Increase your
cognitive
reserve.

8

4

Eat an
anti-inflammatory diet.



Be a social
butterfly in
your own way.

9

5

Beware of
polypharmacy.



Be a cautious
consumer of
brain health
products.

10



Cut this page out and place on your refrigerator door, mirror or anywhere you would like to inspire and motivate your positive lifestyle changes for optimal brain health.

How To Communicate Your Brain Health Concerns To Your Medical Providers

When thinking about changes in cognition (i.e. memory, word finding, problem-solving, multitasking) or behavior (i.e. moodiness, irritability, anxiety, depression, apathy) the most important thing to consider is how this change is different from what is typical for the person and how these changes impact everyday life.



Spend some time gathering your thoughts, information and examples below to discuss at your next primary care appointment.

- **I am concerned about: myself or a loved one**
- **My concerns began:**
- **The course of these changes over time has been: gradual or sudden**
- **This is different from baseline because:**
- **I am most concerned about:**

COMMUNICATION FOR OBTAINING A REFERRAL TO A NEUROPSYCHOLOGIST:

Throughout the I CARE FOR YOUR BRAIN program, you have seen what a neuropsychologist does in action. We are experts in brain and behavior relationships and are determined to figure out exactly what is going on, so that we can provide evidence-based, personalized recommendations to keep your brain as healthy as possible and maximize independence and quality of life. You may not have known that the field of neuropsychology existed before. The following script can provide a great starting point for getting a referral:

“I have been worried about my brain health for some time and recently became aware of what a neuropsychologist can offer me. I would like to discuss obtaining a referral for a neuropsychological evaluation. Is there someone that you commonly refer to or can I provide you with a name/contact number?”

If your provider has a neuropsychologist he or she typically refers to, ask them to send the referral with a brief description of your concerns. If not, please log onto this website (www.abpp.org) to find someone in your local area, or send us an email (drsullivan@icfyb.com), and we will help you locate the nearest board-certified neuropsychologists.

Take time TO REFLECT...

“Aging is not lost youth
but a new stage of opportunity and strength.”

—BETTY FRIEDAN

“Aging is an extraordinary process
where you become the person
you always should have been.”

—DAVID BOWIE

“Wherever life plants you,
bloom with grace.”

—ANONYMOUS

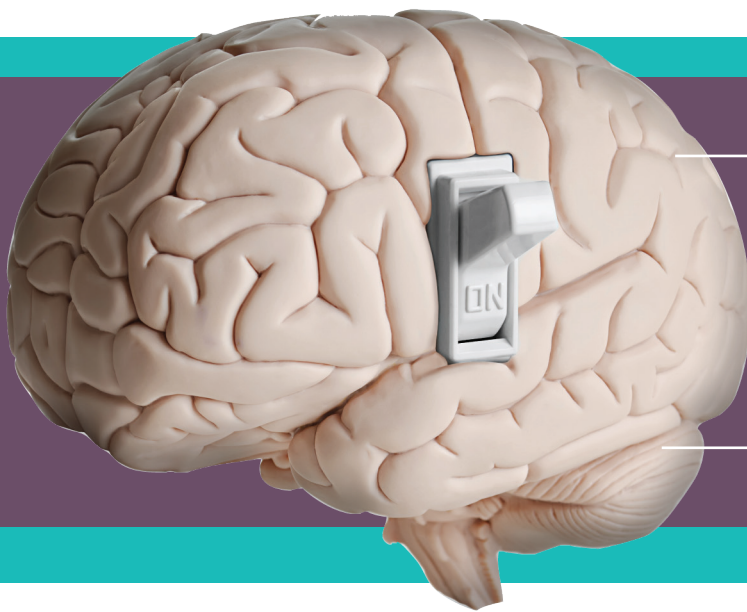
“There is a fountain of youth:
it is your mind, your talents, the creativity you
bring to your life and the lives of people you love.”

—SOPHIA LOREN

I CARE FOR YOUR BRAIN

takes a positive stance on aging, and we hope this program has reassured you about normal, age-related cognitive changes and helps you to thrive during this unique time of life. Reminding ourselves what we value about aging is a great way to keep our thoughts and self-talk positive. Spend some time in reflection as you ponder these quotes below.

WRITE DOWN WHAT EACH QUOTE MEANS TO YOU...



FLIP THE SWITCH On Your Learning

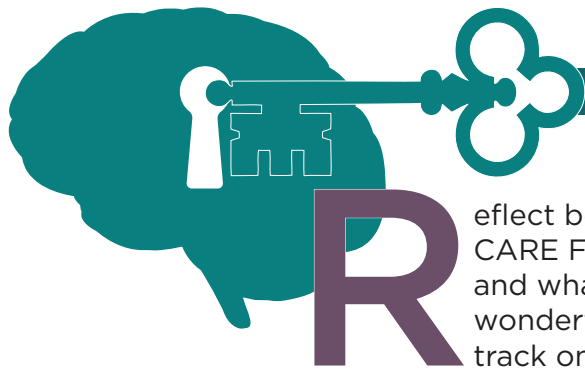
TAKE HOME POINT #1

LECTURE 1 UNDERSTANDING THE AGING BRAIN	
LECTURE 2 HOW TO MINIMIZE YOUR RISKS FOR DEMENTIA THROUGHOUT THE LIFESPAN	
LECTURE 3 HEART HEALTH=BRAIN HEALTH	
LECTURE 4 HOW DO SUBSTANCES AFFECT THE AGING BRAIN?	
LECTURE 5 THE PSYCHOLOGY OF AGING	
LECTURE 6 THE IMPORTANCE OF SOCIAL CONNECTION IN OLDER ADULTHOOD	
LECTURE 7 EVIDENCE-BASED METHODS FOR IMPROVING YOUR MEMORY	
LECTURE 8 HOW SLEEP CHANGES WITH AGE	
LECTURE 9 BRAIN HEALTH AS WE AGE	

Let's take a walk down the I CARE FOR YOUR BRAIN memory lane! Think back on the lectures you participated in and write down the top three take home messages from each one. You can look back through previous workbooks to refresh your memory. This will help to reinforce your learning and motivate you to keep making progress toward better brain health!

TAKE HOME POINT #3

[illegible]



reflect below on how you've applied some of the most powerful I CARE FOR YOUR BRAIN evidence-based recommendations to date and what areas would benefit from your ongoing efforts. This is a wonderful way to impress yourself with your progress and stay on track once the program ends.

RECOMMENDATIONS	CHANGES MADE	MORE PROGRESS TO MAKE
LECTURE 1 <ul style="list-style-type: none"> • Seven elements of successful aging • Lower your modifiable risk factors • Increase cognitive reserve • Know the normal brain changes 		
LECTURE 2 <ul style="list-style-type: none"> • Take control of your health • Challenge your brain with new, repetitive and challenging tasks • Move your body more • Limit alcohol • Be social 		
LECTURE 3 <ul style="list-style-type: none"> • Know your numbers for blood pressure, cholesterol and blood sugar • Take medications as prescribed • Exercise more for your heart and brain health 		
LECTURE 4 <ul style="list-style-type: none"> • Ask for an annual medication review • More is not better with supplements • Consider MIND diet • Manage pain and anxiety with non-drug relief 		

RECOMMENDATIONS	CHANGES MADE	MORE PROGRESS TO MAKE
LECTURE 5 <ul style="list-style-type: none"> • Explore how you react and what stresses you • View stressors as a challenge you can manage • Beware of avoidance • Practice assertive communication 		
LECTURE 6 <ul style="list-style-type: none"> • Make time for quality social time • Eat meals with others • Prioritize face-to-face contact • Be flexible in how you think about hobbies 		
LECTURE 7 <ul style="list-style-type: none"> • Improve memory with effort, motivation and practice • Be engaged and take an active interest in activities • Use internal and external memory strategies • Think positively 		
LECTURE 8 <ul style="list-style-type: none"> • Aim for 7-8 hours of uninterrupted sleep • Practice sleep hygiene • Develop a pre-sleep ritual • Treat sleep apnea or other medical disorders • Consider meditation 		
LECTURE 9 <ul style="list-style-type: none"> • Optimize your senses • Reduce risk of vascular disease • Prioritize sleep • Beware of polypharmacy • Treat mood symptoms and reduce stress 		



SEVEN ELEMENTS OF SUCCESSFUL AGING

- **A low level of physical disability**
- **Maximum independence**
- **Intact cognitive function**
- **Active engagement in life**
- **Social and spiritual connectedness**
- **Positive life review**
- **Self determination**

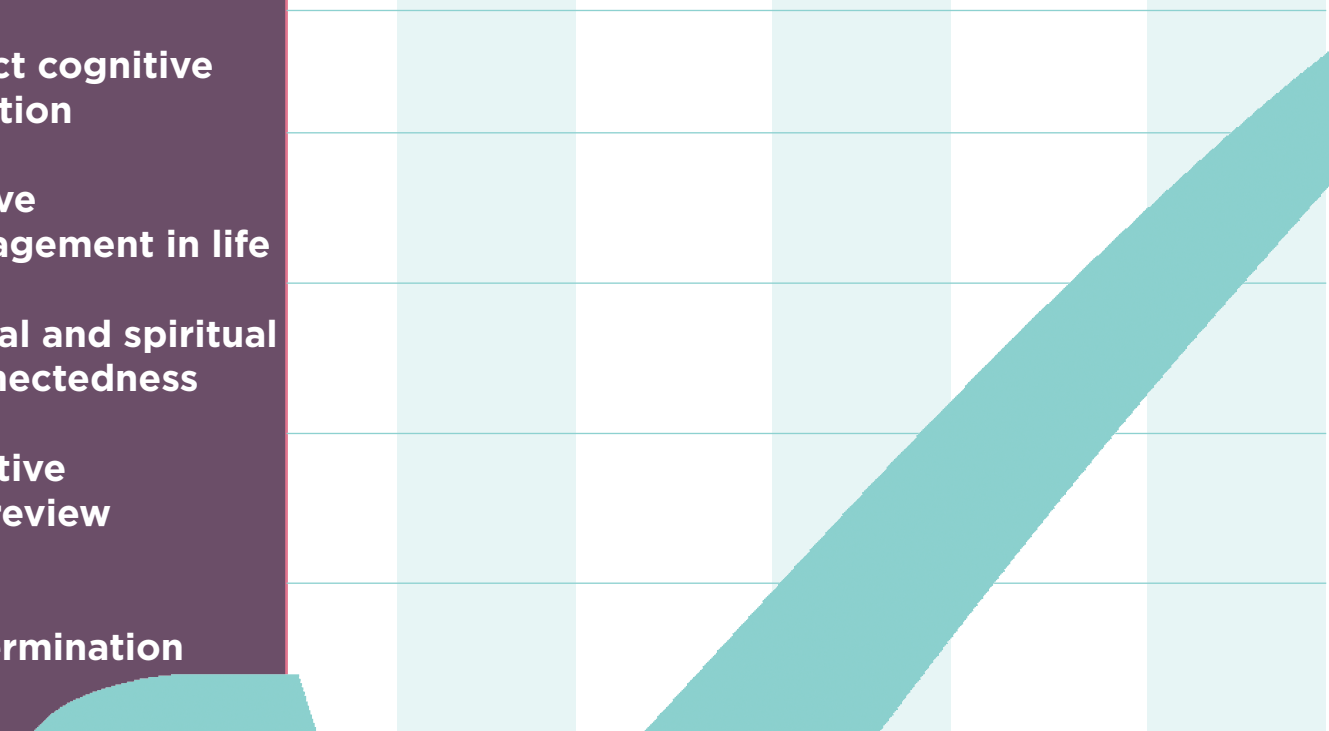
Upon your completion of the
I CARE FOR YOUR BRAIN program, now

GRADE YOURSELF

on these

Seven Elements of Successful Aging

	A	B	C	D	F
A low level of physical disability					
Maximum independence					
Intact cognitive function					
Active engagement in life					
Social and spiritual connectedness					
Positive life review					
Self determination					





SMALL GROUP DISCUSSION TOPICS

- 1** Which of the nine I CARE FOR YOUR BRAIN lectures had the most impact on you and how you care for yourself or a loved one?
- 2** Review the Seven Elements of Successful Aging (Page 18), and discuss which ones have been the easiest and hardest for you to attain.
- 3** Which of the Top 10 recommendations have you been most successful at implementing in your everyday life?
- 4** Discuss the ways you are now less susceptible to the marketing ploys of the “brain fitness” industry after completing this program.
- 5** Do you feel more empowered about how to attain brain health since participating in the I CARE FOR YOUR BRAIN program? How?

[illegible]

Brain Trivia



COMPANION WORKBOOK 9

1. FILL IN THE BLANKS:

According to Dr. Sullivan, there are seven elements of successful aging, which are:

- A low level of physical disability

• _____

- Intact cognitive function

- Active engagement in life

• _____

- Positive life review

• _____

2. FILL IN THE BLANKS:

As we age, brain health depends on our _____, our _____ and their interaction.

3. What is a modifiable risk factor?

4. LABEL THE RISK FACTORS BELOW AS NON-MODIFIABLE (NM) OR MODIFIABLE (M)

_____	Hearing/Vision loss	_____	Hypertension
_____	Too little exercise	_____	High cholesterol
_____	Poor diet	_____	Family history
_____	Age	_____	Social isolation
_____	Smoking	_____	Specific gene mutations
_____	Untreated sleep apnea	_____	Low mental stimulation

TRUE OR FALSE:

5. _____ Our IQ, education, job experiences and participation in intellectually stimulating activities, particularly early in life, build stronger and more connected brain cells, which increases the resistance to brain damage of all kinds.
6. _____ Cognitive reserve does not buffer the effects of brain disease in everyday life.
7. _____ As we age, some brain changes are normal. Some examples of normal change are decrease in vision and hearing, reduced processing speed, a little more trouble multitasking and a little more trouble with new learning.

8. Define dementia:

9. COMPLETE THE CHART BELOW TO DESCRIBE SYMPTOMS OF DEMENTIA.

COGNITIVE	BEHAVIOR	DAILY LIFE
Short-term memory loss		Trouble with money
	Moody	
	More irritable	Driving decline
Loss of insight		

10. List four reasons why it is very important to diagnose dementia accurately and early.

11. Not all memory symptoms are due to dementia. List four other factors that can cause memory difficulties.

12. What is the first of the top 10 brain health recommendations from Dr. Sullivan?

TRUE OR FALSE

13. _____ Our body's ability to absorb, metabolize and excrete substances does not change with age.

14. _____ Dr. Sullivan recommends that individuals prioritize uninterrupted sleep. Deep sleep and REM sleep are particularly critical for learning and memory.

Brain Trivia



COMPANION WORKBOOK 9

FILL IN THE BLANKS USING THE WORDS BELOW:

inflammation
vascular

carbohydrates
smallest

brain
whole-foods

15. The second CARE recommendation is to reduce your risk of _____ disease. Our _____ blood vessels are at the greatest risk of vascular disease. These are located in the eyes, feet, kidneys and _____.

16. Two of the direct benefits of exercise are reducing _____ and stimulating growth of new blood vessels in the brain.

17. A _____ diet low in saturated fat and simple _____ (especially sugar) is the most evidence-based diet for brain health.

18. What is polypharmacy?

19. List the six pillars of sleep hygiene.

20. FILL IN THE BLANKS:

Remember that depression and anxiety have _____ symptoms. Chronic exposure to _____ hormones affects our well-being on every level, including _____ health.

TRUE OR FALSE

21. _____ How we think about ourselves and our abilities plays a significant role in how we feel. Remember to watch your words and try to say positive things about your abilities.

22. Dr. Sullivan recommends that everyone work on brain health each day. What are the three ways to improve our abilities over time?

Over time, _____

Over time, _____

Over time, _____



23. FILL IN THE BLANKS:

Feeling _____, rather than being alone, is associated with an increased risk of _____ in later life. Remember that being with other people is mentally _____!

24. Dr. Sullivan recommends that we should be cautious consumers of brain health products. List two ways how you can be more careful about what brain health products you choose to use.

25. Which of the top 10 recommendations do you think you need to work on the most? What are some specific changes you might make in everyday life to improve your brain health?

Brain Trivia Answers



COMPANION WORKBOOK 9

1. Maximum Independence, Social and spiritual connectedness; Self determination

2. genes, environment

3. A modifiable risk factor is something we can change.

4.M: Hearing/Vision loss

M: Hypertension

M: Too little exercise

M: High cholesterol

M: Poor diet

NM: Family history

NM: Age

M: Social isolation

M: Smoking

NM: gene mutations

M: Untreated sleep apnea

M: Low mental stimulation

5. True

6. False

7. True

8. Dementia is the loss of ability to think, remember, or reason to the extent that it interferes with one's ability to do everyday activities like driving, managing medication, and/or managing finances.

9. COGNITIVE: Word-finding difficulties, Disorganization

BEHAVIOR: Less interested, Agitated at times

DAILY LIFE: Forgetting medication, Cooking changes

10. Any four of the following: Start medications that may reduce/slow symptoms, reduce modifiable risks that may contribute to memory decline or everyday impairment, receive education and support, connect to community-based resources, plan for the future

11. Any four of the following: Medications, alcohol, untreated sleep apnea, low vitamin B, depression/anxiety, thyroid, infections (especially UTI), chronic pain, dehydration

12. Optimize your senses.

13. False

14. True

15. vascular, smallest, brain

16. inflammation

17. whole-foods, carbohydrates

18. Polypharmacy is taking more than five drugs on a regular basis.

19. Sleep and wake at the same time each day; avoid late afternoon naps; avoid screens before bedtime; reduce non-essentials in the bedroom; don't eat or watch TV in bed; do not lie in bed longer than 20-30 minutes if you are having trouble falling asleep

20. cognitive, stress, brain

21. True

22. do it more, make it more difficult, make it more unique

23. lonely, dementia, stimulating

24. Media reports/marketing about brain health are generally playing on our fears to sell you a product; question "too good to be true" conclusions; just because it's natural, doesn't mean it's safe; more isn't necessarily better; don't be impressed with fancy brain words; empower yourself with information



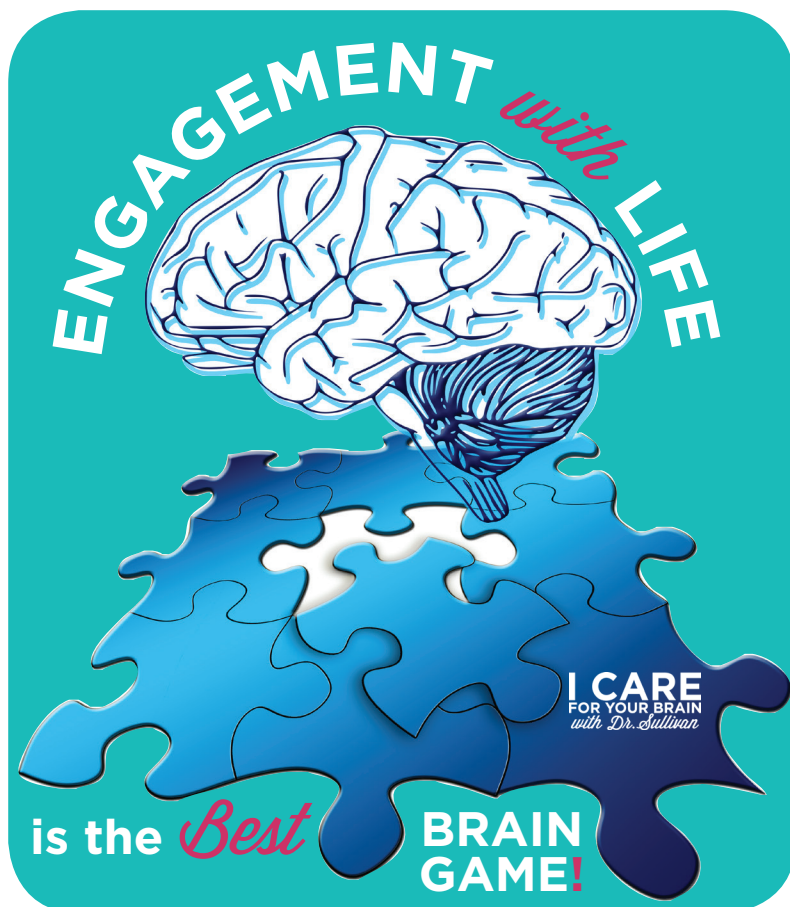
“

Just as physical exercise
IS A WELL-KNOWN AND WELL-ACCEPTED MEANS
TO IMPROVE HEALTH FOR ANYONE, REGARDLESS
OF AGE OR BACKGROUND, SO CAN THE BRAIN BE
PUT 'INTO SHAPE' FOR OPTIMAL LEARNING.

”

—NAVEEN JAIN

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Pinehurst Neuropsychology



Brain & Memory Clinic

- **EXPERT** clinicians with first-rate diagnostic skills and outstanding bedside manner
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- **PERSONALIZED** recommendations that emphasize brain health, quality of life and independence
- **COMMUNITY** resources
- **THERAPY** services for both the patient and caregiver
- **HELPFUL**, friendly staff and inviting office

*What our
patients say...*

Pinehurst Neuropsychology is a patient-centered practice, and the providers' expertise, compassion and passion for their field provide patients with a detailed plan of care and resources to ensure the best quality of life.

Karen D. Sullivan, PhD, ABPP
Board-Certified Clinical Neuropsychologist

Taeh A. Ward, PhD
Clinical Neuropsychologist

Maryanne Edmundson, PhD
Clinical Neuropsychologist

Heather Tippens, LPC
Licensed Professional Counselor

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www.PinehurstNeuropsychology.com

The Backbone of Spinal Care

A man in a dark jacket is seen from behind, standing in a park with his arms raised in a gesture of triumph or relief. The background is a soft-focus landscape with trees and a path, bathed in the warm, golden light of a setting or rising sun. The overall mood is one of hope and recovery.

FirstHealth

NEUROSURGERY

www.firsthealth.org/neurosurgery

Treating disorders of the spine is the backbone of our neurosurgical team's efforts. Our board certified neurosurgeons don't just treat the symptoms of back pain using the state-of-the art technologies we have at our disposal. Here at **FirstHealth**, we share our diagnostic findings as well as our recommendations for treatment and procedures...keeping patients comfortable and well-informed.