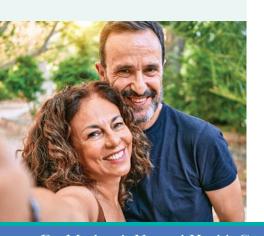
Dr. Marlene's NATURAL HEALTH CONNECTIONS



VOLUME 6 | ISSUE 03

CONTENTS

Dementia Risk Reduced by 90 Percent2
A Hidden Trigger of Memory Problems3
Common Triggers of Brain Fog3
Lack of Vitamin B125
Exercise Is Almost Magical
Anesthesia and Medications6
Silly Walking Is Good for You8
Can Apple Cider Vinegar Help Me Lose Weight?12
Can Berberine Replace Metformin?12



How to Stay Mentally Sharp — for Life!

Why do some people stay on top of their game, no matter how old they are, while others can't find their keys? Hint: Their genes are not the determining factor.

Being a bit forgetful or inattentive is part of a stereotype of older people — having a "senior moment," or being "absent-minded."

However you refer to the situation, the important thing to know is that it can be prevented and you can become sharper. The overall state of your health, what you eat, and your everyday habits make a big difference.

The same factors also influence risk for dementia, which is not a disease but a catch-all term that describes symptoms of brain deterioration that are severe enough to interfere with the ability to live a normal life.

Alzheimer's disease is the most common cause of dementia today but it isn't the only one. Strokes and other conditions that limit the flow of blood and nutrients to the brain can also cause dementia. Toxins in your environment and side effects of medications are some other causes.

The *percentage* of older adults with dementia had been dropping

before the recent pandemic¹ by 1 percent to 2.6 percent per year.² But neurological problems as a result of COVID infection may reverse the decreasing trend. Time will tell.

Meanwhile, the *numbers* of people with dementia are rising. This is happening because more people are living longer and dementia becomes more common with advancing years.

For example, in 2019, dementia affected 3 percent of adults between the ages of 70 and 74, 22 percent of those between the ages of 85 and 89, and 33 percent aged 90 and older, according to the nonprofit Population Reference Bureau in Washington, D.C. But it isn't inevitable.

That said, just the thought of dementia can be very scary because today's conventional medicine does not understand the condition.

IN THE NEXT ISSUE: How to Reduce Your Risk for Cancer

A Medical Mystery

Plagues in the brain are considered to be the hallmark of Alzheimer's disease. However, not everyone who has such plagues has impaired mental function.

At the University of California Irvine, researchers have been tracking more than 1,600 people over age 90 since 2003, in a research project aptly called The 90+ Study. And they have discovered some surprising things: about half the people

Dr. Marlene's NATURAL HEALTH CONNECTIONS

Editorial Director Vera Tweed Art Director Jody Levitan Copy Editor James Naples

For subscriptions and customer service inquiries: 877-300-7849 support@primalhealthlp.com

Natural Health Connections is a monthly publication of Primal Health LP.

Disclaimer: This newsletter offers health, medical, fitness, and nutritional information for educational purposes only. You should not rely on this information as a substitute or a replacement for professional medical advice, diagnosis, or treatment. You should seek the advice of your healthcare provider before undertaking any treatment or if you have any concerns or questions about your health. Do not disregard, avoid, or delay obtaining medical or healthrelated advice from your healthcare professional because of something you may have read in this newsletter. Nothing stated here is intended to be, and must not be taken to be. the practice of medical, nutritional, physiological, or any professional care. Primal Health, LP and its officers, directors. and trainers disclaim any warranties (expressed or implied), of merchantability, or fitness for any particular purpose, and shall in no event be held liable to any party for any direct, indirect, punitive, special, incidental or other consequential damages arising directly or indirectly from any use of this material, which is provided "as is," and without warranties.



Copyright @ 2023 by Primal Health, LP. All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means without the prior written permission of the publisher. Photocopying, recording, or using other electronic or mechanical methods to capture any part of this publication, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law, is prohibited. For permission requests, write to the publisher at the address below.

Primal Health, LP 3100 Technology Drive, Suite 200, Plano, Texas 75074 who suffer from dementia in their 90s don't have Alzheimer's plaques or other signs of brain disease that could explain their condition.³

Previously, researchers at Northwestern University in Chicago looked at "SuperAgers," meaning people who are at least 80 years old but have superior memory — as good as or better than a healthy 50- or 60-year-old. And some SuperAgers had high levels of brain plaque or other brain abnormalities but these did not affect their mental function 4

Despite the unanswered questions about dementia in conventional medicine, various studies have identified ways to maintain and enhance our mental faculties throughout life. However, today's healthcare system is not equipped to harness that knowledge.

As a health professional who is trained in an integrative way of healing, I've helped many patients overcome issues with memory, brain fog, and other undesirable mental symptoms. In the rest of this article, I'll cover the most important things to know and actions to take to prevent and resolve the most frequent issues and become mentally sharper.

Everyday Insults to Your Brain

Studies document significant loss of memory or other mental functions, but this isn't what most people experience. Rather, a more common situation is, "My memory isn't what it used to be."

Another common symptom is often described as "brain fog." It literally feels like you're thinking through a fog. Some other symptoms are having trouble finding the right word — it's right on the tip of your tongue but you can't quite think of it, forgetting someone's name, or forgetting where you put your keys or some other everyday item.

These aren't usually signs of disease. Most likely, they are symptoms of some sort of insult to your system. It could be a poor diet, nutrient depletions, lack of exercise, lack of mental stimulation, isolation, or toxicity. And often, it's a case of simply not paying attention.

Dementia Risk Reduced by 90 Percent

A study of 29,000 older adults (average age of 72) identified these six factors that dramatically reduced the odds of dementia:

- · A healthy diet
- Regular exercise
- Being socially active seeing friends and family
- Being mentally active reading, writing, learning new skills, or doing other mentally challenging activities
- Not smoking
- Not drinking alcohol

People who followed four or more of the above habits were 90 percent less likely to develop dementia, compared to those who followed none or one of the above.

Diet had the strongest effect, followed by mentally challenging activities and exercise. The same habits also significantly reduced more mild decline in memory and other mental functions.

Source: Jia, J., et al. "Association between healthy lifestyle and memory decline in older adults: 10 year, population based, prospective cohort study." BMJ. 2023 Jan 25;380:e072691.

Memory: What's Normal?

When it comes to memory, I'm often asked what is or is not normal. Let's say you forgot where you put your keys. Can you retrace most of your steps in your mind? When did you last have the keys? What did you do after that?

Maybe you walked in the door with groceries and before you had a chance to put the keys in their usual place in the hallway, the phone rang. And while you were talking, you walked into the kitchen to put the groceries down and at the same time, put the keys down just behind the grocery bag on the kitchen counter. And there they are.

If you can't retrace your steps in this or a similar situation, that does indicate a problem. But the situation can be improved.

Not remembering often comes down to lack of attention. If I were to offer you a million dollars to remember where your keys are, I promise, you would remember.

My mother sometimes complains about not remembering things she's learned in the past. But if she focuses, she remembers all sorts of facts and figures.

A Hidden Trigger of **Memory Problems**

In all my years of seeing patients who have troubling memory problems, mold toxicity has been the most common trigger. This statement is usually met with disbelief.

Although flooding of homes is an obvious source of mold growth, it isn't the only one. Mold is much more common than you might think, even in dry climates and new construction.

Signs include musty closets or cupboards; discoloration on a wall, ceiling, or floor; stains on insulation in an attic; discoloration of a doorframe; water damage around a toilet, shower, or tub; moisture damage in drawers of built-ins; or mildew in or around an air vent. This isn't a list of every possible sign but it should give you an idea.

Mold can grow because of condensation in a heating and air conditioning system, leaks from the roof or a bathroom, moisture on a windowsill from a poorly sealed window, leaks under kitchen or bathroom sinks, or some other source of moisture that shouldn't be there. Shining a flashlight into cupboards, under sinks, and into air ducts and other dark spaces can be very revealing.

What to Do

If you suspect mold but aren't sure, I suggest getting your house tested. And if you do have mold, the only solution is to find and fix the

moisture source, replace damaged materials, and then clean up any related areas. It's also good to be aware of potential mold issues to prevent them in the future.

I cover the possible health effects of mold in more detail, along with specific steps for testing and remediation, in an earlier issue of this newsletter that is listed in Related to This Topic on page 7.

I'm not saying that every home has a mold problem. But where mold exists, it's a continual insult to your system, especially to your brain, and it will block benefits of the other steps I'm about to cover.

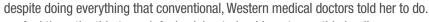
Common Triggers of Brain Fog

Mold can also trigger brain fog. But gluten or dairy, or a combination of the two, are common triggers by themselves.

Here's what happens for people who are sensitive to these foods:

About Dr. Marlene

Dr. Marlene Merritt's passion for natural medicine is fueled by her drive to help others and by her own experience of overcoming a debilitating heart condition, diagnosed at the age of 20. A competitive cyclist at the time, she suddenly began experiencing severe chest pains. Forced to guit the sport, she suffered from fatigue and chest pain for another 15 years,



And then, the tide turned. A physician trained in naturopathic healing recommended a whole-food vitamin E supplement. A week after starting the supplement regimen, her energy began to return, and the pain began to disappear.

Dr. Marlene is a Doctor of Oriental Medicine, has a Master's degree and is board-certified in Nutrition, and is board-certified in Functional Medicine. She is certified in the Bredesen MEND Protocol™, a groundbreaking method of addressing Alzheimer's disease, and is a Proficiency Diplomate in the Shoemaker CIRS protocol for treatment of mold-related illness. She is the author of Smart Blood Sugar and The Blood Pressure Solution, and co-author of The Perfect Sleep Solution. After 31 years in private clinical practice, she now focuses on writing and educating health professionals and consumers to reach more people and positively impact their health. Bacteria in the gut ferment gluten and/or the main protein in dairy products — casein. The bacteria convert these into substances that act like a weak form of morphine in the human body.

In technical terms, gluten gets converted into gluteomorphins, and casein gets converted into casomorphins. Like morphine, these make you feel foggy and tired. And foods with these ingredients can be addicting, so you keep craving macaroni and cheese, for example.

Gluten can also trigger depression and many other symptoms. I cover gluten in more detail in an earlier issue of this newsletter, listed in Related to This *Topic* on page 7.

Not everyone reacts this way, but many people do. The only way to correct this is to avoid eating dairy and foods that contain gluten, such as wheat and other common grains. Both gluten and casein are also added to many processed foods, so it's important to read the list of ingredients on packages.

When these foods are causing brain fog, it takes time for your system to calm down after you stop eating them: between a few days and two weeks for dairy, and fourto-six weeks for gluten. And once the brain fog has gone, avoiding the same foods will prevent it from coming back.

Healthy Diet Basics

In addition to avoiding foods you know cause distress for you, the right diet plays some other important roles.

A low-carb diet of whole foods controls blood sugar and insulin. Following such a diet enables the brain to be fed

Years of eating high-carb starchy and sugary foods leads to blood sugar that rollercoasters and then stays elevated; insulin also becomes elevated. Underlying this is insulin resistance: an inability of cells in your body to absorb and use blood sugar for energy

The brain uses more energy than any other organ, so when insulin resistance is present, the brain becomes malnourished and can't function properly. At the same time, elevated insulin triggers harmful inflammation.

Research shows that blood sugar that is higher than normal, with or without diabetes, increases the odds of dementia.⁵ Along the way, it diminishes mental performance.

Bottom line: A wholesome, low-carb diet lays a foundation for healthy mental function. In Related to This Topic on page 7, I've listed some newsletter issues that cover my recommended diet in detail.

The state of the bacteria in your gut is also a key aspect of a brainhealthy diet.

Whole Plant Foods **Are Essential**

The microbiome — the collection of bacteria in our digestive tract influences brain function. Research shows that the more diverse the bacteria in the gut, the better.6 Unfortunately, processed and fast foods don't contain the ingredients that feed healthy, diverse gut bacteria: fiber and resistant starch.

Fiber from a variety of vegetables will develop and maintain a healthy microbiome. Cruciferous vegetables and leafy greens are especially good. In addition to beneficial fiber, they contain plant chemicals that

help to eliminate toxins, reduce inflammation, protect cells from DNA damage, and defend against harmful bacteria and viruses.

Resistant starch is a type of carbohydrate that acts like fiber in your system. Good sources include iicama and Jerusalem artichokes (also called sunchokes). Rice and potatoes that have been cooked and cooled also contain resistant starch, because their properties change as they cool. You need only a small amount, such as the rice in sushi or a small side of potato salad.

Naturally fermented foods ("cultured" on labels) are often touted as the foods to eat for a healthy microbiome, and they do belong in a nutritious diet. But there isn't one magic food; you need a combination of vegetables.

If you're used to eating processed and fast foods and shift to whole plant foods, it will take a couple of weeks for your gut to adjust. After that, I do not recommend eating fast food as a "treat," because it will probably disagree with you.

Even if you do your best to eat a wholesome diet, nutrient depletions can exist and impair your brain function.

Cruciferous Vegetables



Cruciferous vegetables are versatile and nutritious. They include:

- Arugula
- Bok chov
- Broccoli
- Brussels sprouts
- Cabbage
- Cauliflower
- · Collard greens

- Horseradish
- Kale
- Radishes
- Rutabaga
- Turnips
- Wasabi
- Watercress

Lack of Vitamin B12

A lack of essential vitamins and minerals generally detracts from both physical and mental health, so I recommend taking a daily multivitamin supplement. B vitamins are especially important, and among these B12 deserves special attention.

Vegans, people who regularly take heartburn drugs, and those taking metformin are especially susceptible to a B12 deficiency. Anyone with low stomach acid common among older Americans — is also prone to a shortfall because lack of stomach acid impedes nutrient absorption.

Vitamin B12 is essential for a healthy central nervous system, which includes the brain. A severe deficiency can cause a debilitating lack of energy and weakness, and even make it difficult to walk. In extreme cases, B12 deficiency can mimic signs of dementia.7

Metformin is known to block B12 absorption. Anyone taking the drug should get B12 levels checked during routine check-ups and correct any shortfall.

Optimal Levels of B12

Vitamin B12 levels are measured with a blood test. A normal level is considered to be between 200 and 950 pg/mL (picograms per milliliter). However, an optimal level is above 500 pg/mL.

If your level is above 400 but below 500, taking a multivitamin should be sufficient. If it is lower, you can take an extra B12 supplement in addition to a multi. If re-testing shows that this didn't increase your level to at least 500 or your symptoms don't improve, you probably need B12 shots.

One of my patients was struggling with memory and energy problems and his level was 76 — the lowest I've ever seen. He started receiving B12 shots and instantly felt much better, but restoring healthy levels required twice-weekly B12 injections for a month. And then to maintain optimal levels, he needed a B12 shot every three weeks.

Metformin and heartburn drugs block the absorption of B12 in the digestive tract. So, if you take a B12 pill, it won't be well absorbed in your gut. To bypass this problem, I recommend a B12 supplement that is taken either sublingually or as an oral spray, which will be absorbed through the tissues in your mouth.

Exercise Is Almost Magical

We know that exercise is good for our whole body, but when we talk about the brain, physical activity delivers a special benefit. It increases our internal production of BDNF, short for "brain-derived neurotrophic factor."

BDNF is a protein that regulates the growth and survival of neurons — cells in the brain and nervous system. BDNF repairs damaged neurons, makes new ones grow, and helps neurons communicate with each other.

These actions enable our brain and nervous system to function properly and direct the actions of muscles and other parts of our bodies. In addition, BDNF helps to regulate glucose and the production of energy, and in the pancreas it protects insulin-producing cells against exhaustion.8

As we age, our internal production of BDNF decreases, and this decrease is associated with brain shrinkage, less-efficient memory and overall mental performance, and brain diseases.

Exercise is the best way to boost production of BDNF and prevent and reverse age-related brain shrinkage. And that correlates with better memory and better overall mental performance.9

Any type of physical activity gives the brain a workout because the brain controls every aspect of movement. It coordinates muscles, joints, nerves, and other parts, like the conductor of an orchestra with an enormous number of instruments.

Think about all the elements involved in taking a step: moving your leg forward, controlling the angle of the foot so that you don't

Symptoms of Vitamin B12 **Deficiency**

Lack of vitamin B12 can manifest in a variety of ways, including:

- Memory loss
- Depression
- · Changes in behavior
- Weakness
- Feeling tired
- Lightheadedness
- · Numbness or tingling in hands or feet

- Pale skin
- Heart palpitations
- · Shortness of breath
- Loss of appetite
- Gas
- Constipation
- Diarrhea
- Difficulty walking Vision problems

Beef liver is the richest food source of B12. Other good sources include red meat, seafood, and fish; eggs and dairy foods are other sources, although they are not as rich in the vitamin. Plant foods can't provide significant amounts of B12.

trip but land safely on it in front of you, moving the rest of your body, balancing, shifting weight, and then repeating it on the other side. Just one step is a complex process.

All this stimulates production of BDNF. Even envisioning doing some physical activity makes BDNF rise a little bit.

Mental Challenges Are Essential

In one sense, the brain is much like a muscle: If you don't use it, you lose it. Unfortunately, the way we live today doesn't require a lot of use, so the brain gets lazier.

We are surrounded by a continual flow of information from phones, computers, TVs, and other electronic devices. It's easy to get drawn into cute videos on social media platforms and keep scrolling and scrolling, or to stream episode after episode of a TV show.

These services are designed to keep you engaged. That's the nature of their business. But they don't require any real mental effort on your part — they don't work your mental muscle.

In contrast, reading a book is more challenging. And learning a new skill can be especially beneficial.

One study tested the effects of different activities in a group of 173 older people. Some attended classes for 15 hours per week to learn digital photography or quilting, some spent time socializing with friends, and others spent time by themselves at home, listening to music and doing puzzles.

After three months, memory tests showed that those who were learning digital photography or quilting experienced significant

improvement in memory. Digital photography, which included learning photo-editing software. was the most difficult and produced the biggest memory benefits. In the other groups, some people experienced minor improvement while others did not.

The take-home lesson: Bigger challenges are more beneficial.

Beware of Digital Distraction

I mentioned earlier in this article that memory problems can arise from lack of attention or focus. Any activity that requires controlling your attention and focusing can improve this. But it's also important to recognize the power of electronic devices to distract us and to not get sidelined by them.

Phone notifications and messages and the formidable marketing campaigns of social media platforms can make you feel that if you don't pay attention to them, you might miss out. And if you spend time tracking news, it can leave you feeling anxious. depressed, and overwhelmed.

Personally, I get rejuvenated by taking a break from the digital world every once in a while. And I'm not alone.

A British study of 150 people tested the effects of a break from social media for one week. Participants usually spent an average of eight hours per week on social media. Half continued as usual while the other half either completely abstained or kept time to a minimum — an average of 21 minutes per week — just to stay in touch with family and friends.

The result? Those who spent no or very little time on social media

for one week were in a better mood, felt less anxious, and experienced enhanced overall well-being.10

That said, social media can also be used wisely as a tool to communicate with people you care about who don't live close by.

Even better, get out and visit friends and family. Have them visit you. And do things together. Personal relationships are another cornerstone of being mentally sharp, whereas isolation of older people is a major contributor to mental decline

Anesthesia and Medications

Anesthesia — "going under" for medical procedures — can lead to mental impairment in older people, and the drugs can take a while to get out of your system. If you have a planned procedure, one way to reduce the side effects is to take a supplement that will help you eliminate the anesthetic.

Glutathione is a major antioxidant that helps with detoxification. Our bodies make it, but you can increase levels by taking one of these supplements: Liposomal glutathione is a form that is well absorbed. As an alternative, you can take NAC (short for n-acetyl cysteine), which is a precursor to glutathione.

If you know you will be "going under," take either supplement daily for about a week before the procedure and keep taking it afterward for at least a week or two.

Aside from anesthesia, side effects of many drugs can include memory loss, agitation, confusion, disorientation, drowsiness, and dizziness.

Such drugs fall into these categories: antihistamines and drugs for anxiety, cholesterol (statins), seizures, depression, pain (narcotics), blood pressure (betablockers), insomnia, incontinence, and Parkinson's. Both over-thecounter and prescription versions pose the same dangers.11

If you suspect medication side effects, check with your doctor or pharmacist for alternatives. And if you take more than one drug, ask about potential interactions.

Health Conditions

Chronic inflammation in your system also inflames and hurts the brain, and it needs to be addressed. Eating a wholesome low-carb diet, avoiding gluten and/or dairy if you don't tolerate these, and getting regular exercise will ward off inflammation, but infections are also a common trigger.

In all my years of practice, the most common infections I've seen are in the teeth and gums. in sinuses, and in the urinary tract. There is only one solution: They just have to be treated. Otherwise, they will generate constant inflammation that interferes with your ability to think clearly, remember, and feel like yourself.

Lack of sleep can be an underlying cause of memory and other mental issues. And low thyroid, if untreated, is another. I've listed earlier issues that cover ways to deal with these in Related to This Topic below.

Sensory deprivation because of poor vision, hearing, or dental health will deprive your brain of stimulation that it needs to function normally. Get glasses if you need them and keep your prescription up to date. If your hearing has declined, have it checked and get a hearing aid; over-the counter versions are quite affordable. And if chewing is difficult because of dental issues, see a dentist.

A Final Word

The points I've covered can help you be mentally sharper. If you

Mold: The Hidden Trigge of More Than 40 Ailments

have mold in your home, have an

infection, or take medications that could be problematic, get these taken care of first. Otherwise, check your diet, and if you don't regularly exercise, start going for a daily walk. And then, address the other points I've covered.

You're probably wondering about supplements. In addition to a multivitamin and, if you need it, extra vitamin B12, take fish oil if you don't regularly eat fish a few times a week.

Turmeric supplements help to reduce inflammation. Ginkgo biloba or ginseng can enhance memory and overall mental performance, and a combination of the two can be even more effective.

That said, the most important steps are to eliminate insults to the brain, as I've described. Once you start doing that, supplements can enhance the benefits. Stay tuned for more details about these supplements in an upcoming issue.

Related to This Topic

These are some earlier issues of this newsletter that address related topics:

To be set a first and the set of			And a real of real of the second seco
Related Topic	Volume	Issue	Title
Mold	2	11	Mold: The Hidden Trigger of More Than 40 Ailments
A Healthy Diet	6	1	Your 2023 Guide to Better Health: Part 1
A Healthy Diet	6	2	Your 2023 Guide to Better Health: Part 2
Gluten	2	3	How Gluten Can Cause More Than 30 Health Conditions
Statin Drugs	1	4	When Statin Drugs Can Harm You More than Cholesterol
Sleep	5	4	Restful Sleep: How to Get Enough
Thyroid	2	7	The 30-Day Thyroid Restoration Protocol

Access these online by logging in to www.NaturalHealthConnections.com.

- Hudomiet, P., et al. "Trends in inequalities in the prevalence of dementia in the United States." Proc Natl Acad Sci U S A. 2022 Nov 16;119(46):e2212205119
- Schoeni, R.F., et al. "Introduction to a Supplement on Population Level Trends in Dementia: Causes, Disparities, and Projections." J Gerontol B Psychol Sci Soc Sci. 2018 Apr; 73(Suppl 1): S1-S9.
- 3 The 90+ Study. https://mind.uci.edu/research-studies/90 plus-study/
- Rogalski, E., et al. "Cognitive trajectories and spectrum of neuropathology in SuperAgers: The first 10 cases.' Hippocampus. 2019 May;29(5):458-467.
- 5 Crane, P.K., et al. "Glucose Levels and Risk of Dementia." N Engl J Med. 2013 Aug 8; 369(6): 540-548.
- 6 Meyer, K., et al. "Association of the Gut Microbiota With Cognitive Function in Midlife." JAMA Netw Open. 2022 Feb 1;5(2):e2143941.
- 7 Hanna, S., et al. "Vitamin B12 Deficiency and Depression in the Elderly: Review and Case Report." Prim Care Companion J Clin Psychiatry. 2009; 11(5): 269-270.
- 8 Bathina, S., et al. "Brain-derived neurotrophic factor and its clinical implications." Arch Med Sci. 2015 Dec 10; 11(6): 1164-1178.
- 9 Erickson, K.I., et al. "Exercise training increases size of hippocampus and improves memory." Proc Natl Acad Sci U S A. 2011 Feb 15;108(7):3017-22
- 10 Lambert, J., et al. "Taking a One-Week Break from Social Media Improves Well-Being, Depression, and Anxiety: A Randomized Controlled Trial." Cyberpsychol Behav Soc Netw. 2022 May;25(5):287-293.
- 11 Shinohara, M., et al. "[Drug-induced Cognitive Impairment]." Brain Nerve. 2016 Apr;68(4):421-8.

Silly Walking Is Good for

"Silly walking," based on a popular Monty Python sketch that first aired on British TV in 1970, can be a good way to get some vigorous exercise, according to a recent study.1 And it can be fun to try.

The original TV segment, called The Ministry of Silly Walks, was a parody of inefficiency among civil servants. Characters in the sketch made slow forward progress because of their silly walking style. And audiences loved it.

You can watch a one-minute video of the original comedy routine



and ways that participants in the recent study emulated the movements here: https://www.youtube. com/watch?v=FhRLg0IDyhM.

In addition to being entertaining, it turns out that the comedy troupe invented a novel way to get exercise benefits from a short workout.

Researchers found that walking the silly way for just 11 minutes per day is equivalent to the recommended 75 minutes of vigorous exercise per week. An alternative recommendation is to get 150 minutes of moderate activity per week, such as normal walking at a brisk pace.

So, silly walking is more efficient because it takes less time to get a good workout — even

though it won't quickly get you from point A to point B.

How to Do It

You don't need to move exactly like the actors in the Monty Python troupe (and you don't need to wear a bowler hat). Just add silly movements to your steps in whatever way you can. Don't be afraid to look silly; after all, this is silly walking.

As well as being physically challenging, creating silly movement should be good for your brain, although the study didn't look at this aspect. And if you've ever wondered what it would be like to be a comedic actor, this is your chance to find out.

Who said walking is boring?

Protect Yourself Against Air Pollution

I don't need to tell you that air pollution is bad for your health. It's well known that it harms the lungs and heart, but until fairly recently it was believed that the brain wasn't damaged. Not so.

A recent Canadian study looked at brain scans of people after they were exposed to diesel exhaust and found that the pollution decreased connections within the brain that are essential for normal function.²

If you're walking or riding a bike, do your best to avoid heavily trafficked streets. And when driving on congested freeways, keep your car windows closed — but make sure that the air filter in your car is in good condition.



Gum Disease and Atrial Fibrillation

Inflammation in the gums can trigger or contribute to inflammation in blood vessels, the brain, and the heart, increasing risk for heart disease and neurological problems. Now, a new study has found an additional connection — to atrial fibrillation (A-fib).³

An irregular heart rhythm that can also be very rapid, A-fib increases risks for blood clots, stroke, and heart problems.

The new study found that in people with atrial fibrillation, gum disease is associated with fibrosis: scarring or thickening in part of

the heart. The more severe the gum disease, the worse the fibrosis and health risks in these patients. If your gums bleed or are sore, see a dentist and use my homecare protocol in Volume 3, Issue 10, of this newsletter: *The 5 Simple Steps* to Healthy Teeth and Gums.

- Gaesser, G.A., et al. "Quantifying the benefits of inefficient walking: Monty Python inspired laboratory based experimental study." BMJ. 2022 Dec 21;379:e072833.

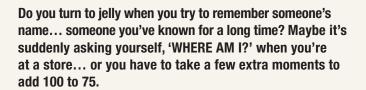
 Gawryluk, J.R., et al. "Brief diesel exhaust exposure acutely impairs functional brain connectivity in humans: a randomized controlled crossover study." Environ Health. 2023 Jan 14;22(1):7.
- Miyauchi, S., et al. "Relationship Between Periodontitis and Atrial Fibrosis in Atrial Fibrosis in Atrial Fibrosis of Left Atrial Appendages." JACC Clin Electrophysiol. 2023 Jan;9(1):43-53.

Say"Good Bye"to those Senior Moments

PREVENT, STOP, AND REVERSE MEMORY LOSS & DEMENTIA FOR LIFE!

Within two weeks my memory came back, and the confusion I had experienced went away. It was a miracle."

— Cathy D. Carson City, NV



Perhaps you're suddenly feeling bored when you're the most excited person on the planet. Are you repeating yourself like a broken record? Maybe you don't seem like your normal superfocused self.

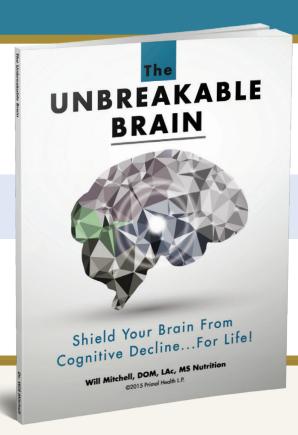
Yes—these are senior moments...and they are the first signs of dementia. The Alzheimer's Association recently admitted it, "Memory loss that disrupts daily life may be a symptom of dementia."

How long will these "senior moments" continue? If you think memory loss will "go away" like a bad case of the flu... think again. They won't... unless you start taking some simple steps.

That is why world-renowned brain expert Dr. Will Mitchell has recently released his best-selling book, **The Unbreakable Brain**. This simple, but powerful 121-page book gives you a 28-day plan for brain health you can start right away. The plan gives you 7 powerful strategies you can easily adopt, and in the next 4 weeks, you'll be able to...

- Protect your brain
- · Keep your mind razor-sharp for as long as you live
- And keep your independence by not spending your final days in a facility.

Here's what Cathy D. from Carson City, NV wrote to Dr. Mitchell after reading **The Unbreakable Brain**, "Within two weeks my memory came back, and the confusion I had experienced went away. It was a miracle."



Yes—in just 2 week's Cathy's memory was back! Its results like this that have made **The Unbreakable Brain** a national best-seller. It's even popular in the medical community. Beverly C. from West



Renowned Health Expert, Dr. Will Mitchell

Des Moines, IA wrote to say, "I took your book to my doctor's office, and he knew of it and said it was one of the best. My doctor is on board with this plan."

Dr. Will Mitchell put everything you need to prevent and even fight dementia in this easy-to-read book. In addition to his 28-day plan to a sharper brain, you'll also find...

- 1 simple trick to finding the true cause of your memory loss—and how to fix it...
- 14 prescription drugs that kill your memory...
- 5 things your brain needs every day to super-boost memory...
- Complete list of inexpensive nutritional supplements that revive the brain...
- At-home test that reveals if you'll get full-blown dementia...

Over 180,000 copies **The Unbreakable Brain** have already been sold to folks like Dorothy from Shelton, WA. who said, "I am delighted with my results, and I would highly recommend this book to anyone struggling with memory problems as they age."

Get your copy of The Unbreakable Brain today and protect your brain in just 28-days!

Get The Unbreakable Brain for Just \$27!

www.SimpleBrainFix.com/NHC2

Vitamin D Testing Is Essential

For years, I've been recommending that you get levels of vitamin D tested, and there has been ample science showing that this is necessary because individual needs vary. Now, a new study at Brigham and Women's Hospital in Boston has provided even more evidence that a one-size-fits-all dose of vitamin D falls short for many people.

How the Study Was Done

In a group of nearly 3,000 people, researchers tested a fixed dose of vitamin D: 2,000 IU daily, taken for two years. And they compared the effects with a placebo. They wanted to see how supplementation influenced blood levels of the vitamin.¹

At the outset, blood tests showed that levels of vitamin D were lower among people who were overweight or obese, compared to those with a normal weight. And two years later — after all participants had been taking the same dose of vitamin D — tests showed that levels increased much more in people whose weight was normal, compared to those who were heavier.

This did not surprise me, as it is known that heavier people are more likely to be deficient in vitamin D and to need higher supplement doses. I'm not sure that there was a pressing need to prove this again, but now it's done and we have the additional evidence.

The Take-Home Message

There's a false notion that the same dose of a nutrient is always supposed to produce the same effect in everyone. While we do have some useful general guidelines for adequate nutrition, people's diets, lifestyles, health states, and individual needs differ.

Vitamin D is so important. Studies have shown that in addition to being essential for healthy bones,



vitamin D can help to reduce risk for cancer, heart disease, diabetes, and autoimmune diseases, and to enhance overall health. But the full benefits come from getting *adequate* vitamin D — the right amount for you.

In my experience of testing many patients' levels of vitamin D, the dose of the supplements in the study was quite low. I've found that most people need 5,000 IU daily to get levels into a healthy range, and some need more. And it's vital to also take vitamin K2 supplements to enable your body to properly use vitamin D.

Bottom line, I highly recommend that you get your vitamin-D level tested, take a dose based on the results, and get re-tested a few months later. The best time to test is when your level is likely to be lowest: mid-winter or next best, before summer. If your level is not in an optimal range — at or near 50 ng/mL — adjust the dosage and get tested again in a few months. A higher dose or, sometimes, a different brand of vitamin D can make a difference.

Dietary supplements aren't covered by insurance plans. However, vitamin-D tests are generally covered if they are ordered by your doctor, and they should be included in your routine check-ups. The important thing is to provide your body with the amount of vitamin D that it needs.

Exercise Protects Against Severe COVID

A recent study looked at the connection between exercise and COVID infections between January 2020 and May 2021. It found that those who routinely exercised for at least 150 minutes per week before getting sick were the least likely to be hospitalized, to require intensive care, or to die from

the infection. The study included more than 194,000 people in Southern California.²

Those who exercised for less than 150 minutes per week had less risk of severe infection than those who were inactive. But between 150 and 300 minutes of weekly physical activity — the equivalent of 30

minutes to 1 hour on five days per week — was most protective.

This doesn't negate the need to take common-sense precautions against infection, such as wearing a mask in crowded indoor spaces. A low-carb diet that keeps blood sugar stable is another way to reduce risk.

¹ Tobias, D.K., et al. "Association of Body Weight With Response to Vitamin D Supplementation and Metabolism." JAMA Netw Open. 2023 Jan 3;6(1):e2250681. 2 Young, D.R., et al. "Associations of Physical Inactivity and COVID-19 Outcomes Among Subgroups." Am J Prev Med. 2022 Dec 10;S0749-3797(22)00526-8.

Get Back Out There..

STOP LETTING FATIGUE AND LOW-ENERGY ROB YOU OF THE ACTIVITIES YOU ENJOY!



Do you feel drained all the time, unable to do the things you love because you have no energy and no motivation?

Do you feel tired and run down... like you're running on empty, even when you get plenty of sleep?

If you're not living the active, fun-filled life, you were meant to live, please pay close attention: You can now get your energy back, boost your mental clarity, calm your nerves and enjoy all-day endurance that will make your life fun again!

That's why I'm excited to introduce the safe and natural energy booster designed for people just like you...

It's called, ActivAdapt Energy Drink Mix.

There's truly nothing else quite like it on the market today because one of its ingredients has been proven in a double-blind study to increase energy by 107% within 60 minutes. And even better, this caffeine-free boost of energy lasted 5 hours WITHOUT increasing heart rate or blood pressure!

ActivAdapt is an easy to use drink mix that contains 6 powerful nutrients to help you regain your energy, strength, and stamina:

EnXtra is a brand-new, patent-pending extract from Alpinia Galanga, a plant in the ginger family. It's a safe, natural energy-boosting compound that boosts energy levels by 107% and lasts 5 hours!

Rhodiola Root Extract boosts energy levels by increasing ATP, the "energy molecule" inside your cells. Rhodiola has been used by astronauts and military personnel to increase energy levels, boost alertness and sharpen mental focus during long missions.

Schizandra Berry increases endurance and working capacity under stress. Researchers have also found it enhances your reflexes and mental sharpness while calming you down if you're feeling anxious.

Ginseng is well studied for boosting brain function and short-term memory while promoting calmness. A new analysis published last year confirms it also reduces fatigue after exercise and physical activities.

Matcha extract is from a special form of green tea loaded with EGCG, a potent antioxidant that helps flush dangerous toxins from the body—while its amino acids promote a state of relaxation and well-being.

Palatinose is unique because it provides your body with a slow, steady release of energy with no spike in blood sugar—which helps keep insulin levels low. It delivers more energy and increases fat burning.

Here's how **ActivAdapt** works...

Simply add one scoop to water, stir, and it dissolves quickly and easily.

It's caffeine-free and only contains 20 calories. You'll notice a substantial change in your physical and mental energy almost immediately after you drink it... with no jitters, no increased heart rate, no blood sugar spikes, and absolutely no crash.

ActivAdapt is ideal if you want to regain your energy and feel more vibrant and alive than you have in years...

- · More physical energy, strength, and stamina
- · Increased mental energy and focus
- · Greater concentration and better moods
- · Deeper, more restorative sleep
- · Lower levels of the stress hormone cortisol
- Enhanced weight control, and fewer sugar and carb cravings

It's time to get back out there and start enjoying the activities you've always loved—and with the help of **ActivAdapt**, it's never been easier. Boost your energy levels, bust stress, banish brain fog, and stop fatigue, while increasing your concentration, attention, and mood.

Get Your Bottle of ActivAdapt Today and Start Living the Life You Were Meant to Live!



Get ActivAdapt Today! www.GetActivAdapt.com/NHC2

Q: I've heard so much about apple cider vinegar helping people lose weight. Have you found it to be of any benefit in weight loss? — Steven M.

A: I've seen a benefit when someone changed their diet, started losing weight, and then added the vinegar to their regimen. And then, it can boost the results of the diet. Research has also shown this.



Unlike drugs, apple cider vinegar doesn't force your body to lose weight. If it did, it would also have adverse side effects like drugs.

Drinking a tablespoon of apple cider vinegar mixed in a glass of water before meals slightly inhibits the action of two enzymes that break down starches and sugars: alpha-amylase is one and alphaglucosidase is the other. This helps to tame rises in blood sugar after meals and to stabilize levels of blood sugar and appetite.

One study found that natural, unprocessed apple cider vinegar inhibits the enzymes I mentioned more than a processed version does. So, if you decide to try it, a natural version may be a good choice. Apple cider vinegar also increases acidity in the stomach, which helps to break down food and improve digestion.

One caution: Acidity in vinegar can destroy tooth enamel. Some people drink it through a straw to reduce this harmful effect. I always recommend rinsing your mouth with water after a vinegar drink.

Q: I take metformin for type 2 diabetes. Could berberine supplements help me get off the metformin? — Brenda H.

A: Berberine can help to lower blood sugar in type 2 diabetics, but there's no guarantee that it will help you get off metformin. It depends on your diet.

Carbs — including starchy and sweet foods and drinks — raise blood sugar. Metformin lowers blood sugar by blocking absorption of *some* of the carbs (and vitamin B12) in your digestive system. If you reduce the carbs in your diet, you can usually get the same blood-sugar result without blocking B12 absorption.

A low-carb diet lays the foundation for healthy blood sugar, and nothing can replace it. Metformin or an herb such as berberine will enhance the effects of a low-carb diet, but neither can substitute for it.

If you eat a diet that raises blood sugar and take metformin, berberine, or both, the drug and/or herb will be fighting an uphill battle.

I encourage you to use a continuous glucose monitor (CGM) and check your blood sugar a few times during the two hours after you eat a meal or snack or drink anything other than water. It will enable you to see how what you eat and drink is affecting your blood sugar.

It's difficult to track this

precisely without a CGM, as you would need to take multiple blood samples. And a CGM can easily show you how exercise influences your blood sugar. If you don't currently use a CGM, I suggest that you ask your doctor for a prescription for one.

Back to berberine: it works differently than metformin. Instead of blocking absorption of carbs, it slows digestion, which helps to stabilize blood sugar without blocking absorption of nutrients.

Both berberine and metformin enhance insulin sensitivity, meaning blood sugar is more efficiently absorbed by your body and less stays in the blood. Plus, berberine also helps to lower levels of cholesterol, triglycerides, and chronic inflammation in type 2 diabetics.

The dosage in studies has usually been 500 mg of berberine hydrochloride (HCL for short), three times daily, just before each meal. When digestive upset occured, the dosage was reduced to 300 mg just before each meal.

Do you have a question for Dr. Marlene?

Send your health-related questions to drmarlene@naturalhealthconnections. com. Please include your first name and the initial of your last name. Although she cannot answer each question directly, Dr. Marlene will select a few in each newsletter and will address other questions and concerns in articles in future issues. Answers are intended for educational purposes only and should not be viewed as medical advice. If you need help with your subscription or have questions about Primal Health supplements, email support@primalhealthlp.com or call 877-300-7849.