

BRIGHT MINDS
FEEL BETTER FAST AND MAKE IT LAST
By Dr. Daniel G. Amen

Chapter 2

The Missing Strategy: Boosting Brain Health Can Make You Feel Great Now and For a
Lifetime

Strategies

1. Develop brain envy.
2. Avoid anything that hurts your brain.
3. Engage in regular brain-healthy habits.

Strategy #1: Develop brain envy.

Love your brain by asking yourself at the moment of every choice, “Is this good for my brain or bad for it?” (I Corinthians 6:19-20 ¹⁹ Don't you realize that your body is the temple of the Holy Spirit, who lives in you and was given to you by God? You do not belong to yourself,²⁰ for God bought you with a high price. So you must honor God with your body.”)

Strategy #2: Avoid anything that hurts your brain.

Most important rules of brain health are:

Rule #1: Never lose brain cells.

Rule #2: Never forget rule #1.

11 major factors that steal brain cells and lead to cognitive impairment. You can prevent or treat almost all of these risk factors, and even the ones that you can't, such as having a family history of dementia, can be ameliorated with the right strategies. Here is a brief summary of the BRIGHT MINDS risk factors. The risks marked with an asterisk (*) are things that might make you feel better temporarily but will hurt you in the long run.

B – Blood flow: Circulation is essential to life. It is the conduit for transportation nutrients to, and toxins away from, your cells. Low blood flow shrinks the brain and kills its cells. In fact, low blood flow on brain imaging is the number one predictor of future Alzheimer's disease. What's more, if you have blood flow problems anywhere, you likely have them throughout your body.

Blood flow risks that drain your brain

- Excessive caffeine*
- Nicotine*
- Dehydration
- Hypertension
- Any cardiovascular disease
- Erectile dysfunction
- Oxygen deprivation (such as near drowning)
- Too little exercise*

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R – Retirement/Aging: The risk of brain dysfunction increases with age. When you stop learning or connecting with others, your brain starts dying.

Retirement/Aging Risks That Drain Your Brain

- Loneliness or social isolation
- Being in a job that does not require new learning
- Retirement without new learning endeavor

I – Inflammation: Chronic inflammation is like a low-level fire in your body that destroys your organs. Here's a list of inflammation promoters.

Inflammation Risks that Drain Your Brain

- Leaky Gut
- Gum disease
- Low omega-3 fatty acids
- High omega-6 fatty acids
- High C-reactive protein (CRP)
- Fast and processed food, pro-inflammatory diet*

G – Genetics: Your inheritance matters, but your lifestyle matters more. As we will see, genetic risk is not a death sentence; it should be a wake-up call to get serious about brain health.

Genetic Risks That Drain Your Brain

- Family member with cognitive impairment, dementia, Parkinson's disease, or a mental health issue
- Apolipoprotein E (APOE) e4 gene (one or two copies raise your risk for cognitive problems)

H – Head trauma: Your brain is soft, about the consistency of soft butter, and it is housed in a very hard skull with multiple sharp, bony ridges. Head injuries, such as concussions, even mild ones, can kill brain cells and cause significant, lasting cognitive problems. Even one concussion triples the risk of suicide.

Head Trauma Risks That Drain Your Brain

- History of one or more head injuries with or without loss of consciousness
- Playing contact sports* even without concussion
- Activities that increase the risk of brain trauma, such as texting while driving,* trying to carry too many packages at one time, or going up on any roof (don't unless it's absolutely safe)

T – Toxins: Toxins are a major cause of brain dysfunction. Your brain is the most metabolically active organ in your body, which makes it more vulnerable to damage from a

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long list of toxins. Personal care products are particularly dangerous, because what goes on your body goes in and becomes your body.

Toxin Risks That Drain Your Brain

- Nicotine (smoking cigarettes, chewing tobacco, vaping)*
- Drug abuse, including marijuana* which increases the risk of psychosis in teenagers, decreases motivation and school performance, and decreases overall blood flow to the brain, especially in areas vulnerable to Alzheimer's disease.
- Moderate to heavy alcohol use*
- Many legal drugs, such as benzodiazepines sleeping medications, and chronic pain medication*
- Pesticide exposure in air or food, recently shown to decrease serotonin and dopamine in the brain
- Environmental toxins, such as mold, carbon monoxide, or air or water pollution
- Personal care products (such as shampoo and deodorants) made with parabens, phthalates, or PEGs* (fluoride)
- Artificial food additives, dyes, and preservatives
- Drinking* or eating* out of plastic containers
- Heavy metals, such as lead or mercury (found in immunization shots as a preservative)
- Cancer chemotherapy
- General anesthesia (use local or spinal anesthesia whenever possible)
- Health issues with the organs of detoxification – liver, kidneys, skin, or gut
- Handling cash register receipts (plastic coating can get through your skin)

M – Mental Health: Untreated problems ranging from chronic stress and anxiety to bipolar disorder and addictions are associated with cognitive impairment and early death.

Mental Health Risks That Drain Your Brain

- Chronic stress
- Depression
- Anxiety disorders
- Attention deficit hyperactivity disorder (ADHD)
- Posttraumatic stress disorder (PTSD)
- Bipolar disorder
- Schizophrenia
- Addictions (drugs, alcohol, sex)*
- Gadget addiction*
- Negative thinking

I - Immunity/Infection Issues: These are common but often unrecognized causes of brain dysfunction.

Immunity/Infection Risks That Drain Your Brain

- Chronic fatigue syndrome

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- Autoimmune diseases, such as rheumatoid arthritis, multiple sclerosis, and lupus
- Untreated infections, such as Lyme disease, syphilis, and herpes
- Hiking* where you may be bitten by a tick
- Low vitamin D level

N – Neurohormone deficiencies: When your hormone levels are unbalanced, your brain is too

Neurohormone Deficiencies That Drain Your Brain

- Low or high thyroid
- Low testosterone (males and females)
- Low estrogen and progesterone (females)
- Low DHEA
- High cortisol levels
- Hormone disruptors, such as BPA, phthalates, parabens, and pesticides
- Protein* from animals raised with hormones or antibiotics that can disrupt your hormones
- Sugar,* which disrupts hormones

D – Diabetes: The term describes a combination of being diabetic or prediabetic and being overweight or obese. The standard American diet is a major cause of diabetes, which contributes to chronically high blood sugar levels. These hurt blood vessels and cause inflammation and hormone disruption as well as the storage of toxins – all of which damage the brain.

Diabetes Risks That Drain Your Brain

- Diabetes or prediabetes
- High fasting blood sugar or HbA1c (hemoglobin A1c)
- Being overweight or obese
- Standard American diet* of processed foods, sugar, and unhealthy fats
- Drinking fruit juice* (high in sugar)

S – Sleep issues: All sleep problems are a major cause of brain dysfunction, but especially chronic insomnia and sleep apnea. When you sleep, your brain cleanses itself of debris. Without proper sleep, trash builds up, harming the brain.

Sleep Issues That Drain Your Brain

- Chronic insomnia
- Chronic use of sleep medication*
- Sleep apnea
- Drinking/eating caffeinated drinks or food after 2 p.m.*
- Sleeping in a warm room
- Light or noise at night
- Gadgets* that wake you up
- Irregular sleep schedule

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- Anger or upset before bed

Whatever you want in life, it is easier to achieve when your brain works right. It is important to have the right attitude as you make these changes. You don't avoid things in order to deprive yourself. You avoid things that hurt your brain because it is the ultimate act of love – for yourself and others. (Leviticus 19:18; James 2:8 “Love your neighbor as yourself.”)

Now What?

Now that you know what risk factors to avoid, it is critical that you develop discipline around building the best daily habits.

Strategy #3: Engage in regular brain-healthy habits.

Now that you know what risk factors to avoid, it is critical that you develop discipline around building the best daily habits. I'll discuss them in the context of our BRIGHT MINDS program, starting with several overarching habits you will want to adopt.

General Strategies

- Worry – a little. According to research, people whose motto is “Don't worry; be happy” die the earliest from accidents or preventable illnesses. Some anxiety is good. Obviously too much is bad, but so is too little. (Philippians 4:6-7 ⁶ Don't worry about anything; instead, pray about everything. Tell God what you need, and thank him for all he has done. ⁷ Then you will experience God's peace, which exceeds anything we can understand. His peace will guard your hearts and minds as you live in Christ Jesus.)
- Make yourself less vulnerable to poor decisions. Ultimately, the quality of your decisions determines the health of your brain and body. Be sure to have clear goals, get seven hours of sleep every night, and keep your blood sugar on an even keel by eating protein and fat at every meal. Low blood sugar levels are associated with poor decisions.
- Identify your daily motivation. In chapter 8 I'll introduce what I call the “One-Page Miracle” which you can look at every day for inspiration and focus.
- Select a healthy peer group. You become like the people with whom you spend time, and being with healthy people is a good way to develop brain envy. (Proverbs 13:20 Walk with the wise and become wise; associate with fools and get in trouble.)

FEEL BETTER FAST NOW AND LATER TIP: Find the healthiest person you can stand and then spend as much time around him or her as possible.

B – Simple Brain-Healthy Habits to Improve Brain Blood Flow

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- At least twice a week, engage in regular exercise and healthy sports that require coordination and complex moves (dancing, table tennis, tennis, martial arts without head contact, golf, tai chi, qigong, yoga)
- Focus on staying hydrated – drink five to eight glasses of water a day
- Drink decaffeinated green tea
- Have a small piece of sugar-free dark chocolate
- Spice up your food with cayenne pepper and rosemary (for more detailed information on brain-healthy foods, see Ch 9)
- Eat beets
- Eat green leafy vegetables to boost Vitamin E and blood flow
- Eat pumpkin seeds to boost dopamine and increase focus
- Take supplements: ginkgo biloba and vinpocetine (see ch 10 for a discussion on nutraceuticals)

FEEL BETTER FAST NOW AND LATER TIP: Eat a beet salad, sprinkled with pumpkin seeds, and small pieces of dark chocolate with a cup of green tea.

R – Simple Antiaging Brain-Healthy Habits

- Start a daily practice of learning something new
- Take up a musical instrument as a new learning strategy
- Listen to upbeat, happy music to boost your brain
- Join a singing group
- Learn new dance steps to help keep the brain young
- Use cloves, a potent antioxidant, in cooking
- Eat shrimp to boost acetylcholine, the neurotransmitter of memory
- Stay connected, seek social support, volunteer
- Take supplements: acetyl-L-carnitine (to improve mitochondrial energy), huperzine A (to boost acetylcholine), and the herbs rhodiola and ashwagandha (to increase overall energy)

FEEL BETTER FAST NOW AND LATER TIP: Listen to stimulating music or sing. Make a playlist of the songs that make you feel amazing.

I – Simple Brain-Healthy Habits to Decrease Inflammation

- Get your CRP level tested (blood test)
- Test your Omega-3 Index (blood test); the goal is to get above 8
- Eat more toxin- and pollutant-free fish or take fish oil supplements
- Eat more Omega-3 rich foods, such as nuts, seeds, avocados, and green leafy vegetables
- Increase consumption of probiotic foods or supplements
- Floss your teeth daily and care for your gums

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FEEL BETTER FAST NOW AND LATER TIP: Eat more Omega-3 rich foods such as clean fish, avocados, and walnuts.

G - Simple Brain-Healthy Habits to Improve Your Genetics

- If you have dementia in your family, be serious about brain health as soon as possible and go in early for memory screening
- Test your APOE gene type; if you have the APOE e4 gene, avoid contact sports and other head trauma risks
- Eat foods with turmeric or take the supplement curcumin
- Eat organic blueberries
- Cook with sage
- Take supplements: CoQ10, vitamin D, sage, curcumin, and green tea extracts

FEEL BETTER FAST NOW AND LATER TIP: Defrost a cup of frozen organic blueberries to have as a snack.

H - Simple Brain-Healthy Habits to Decrease Head Trauma Issues

- Always wear your seat belt when you drive or ride in a vehicle
- Wear a helmet when skiing, biking, etc.
- Slow down and be careful when going downstairs; hold the handrail
- If you have had a head trauma, check your hormones and optimize any that are low
- Use peppermint (the herb) to help with healing
- Consider hyperbaric oxygen therapy (HBOT; see Appendix A). My colleagues and I published a study on soldiers who had suffered brain injuries. We saw increased blood flow to their brains after the first session and lasting improvements to blood flow, mood, and processing speed after 40 sessions. Improved sleep was one of the most consistent findings with HBOT.
- Take supplements: omega-3 fatty acids and multivitamins

FEEL BETTER FAST NOW AND LATER TIP: Talk to your doctor about HBOT treatments.

T - Simple Brain-Healthy Habits to Detoxify Your Brain and Body

- Buy organic
- Breathe, drink and eat clean (air, water, and food)
- When pumping gas, avoid breathing in fumes
- Limit alcohol to two servings a week
- Support the four organs of detoxification
 - Kidneys – drink more water
 - Liver – eat detoxifying vegetables, such as cabbage, cauliflower, and brussel sprouts

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- Gut – eat more fiber
- Skin – work up a sweat with exercise or use sauna
- Use apps, such as Think Dirty or Healthy Living (EWG.org) to scan your personal care products and eliminate toxic ingredients as possible
- Get your home tested for mold if it has been flooded or had any water damage
- Take supplements: N-acetyl-cysteine (NAC, for you liver) and fiber

FEEL BETTER FAST NOW AND LATER TIP: Take a sauna bath – the more often, the better.

M - Simple Brain-Healthy Habits to Improve Your Mental Health

- Practice stress management techniques, such as those described in Ch 1
- When you awaken in the morning, say to yourself, *Today is going to be a great day!*
- Every day, write down three things you are grateful for
- If you have trouble with focus, consider a high-protein, lower-carbohydrate diet
- Eat up to eight servings of fruits and vegetables a day; a linear correlation shows that this will increase your level of happiness. Tomatoes have been shown to help mood.
- Learn to meditate, especially the Loving-Kindness Meditation (see Ch 1), which has been shown to increase energy to the brain. Memorize Scripture. **(Joshua 1:8 Keep this Book of the Law always on your lips; meditate on it day and night, so that you may be careful to do everything written in it. Then you will be prosperous and successful. Psalm 1:1-2 Blessed is the one who does not walk in step with the wicked or stand in the way that sinners take or sit in the company of mockers, ² but whose delight is in the law of the Lord, and who meditates on his law day and night.)**
- Go for a walk in nature (or at least outdoors)
- Use brighter lights, especially full spectrum bulbs that have ultraviolet radiation similar to the sun's (no fluorescents)
- If natural interventions are not effective, work with a local therapist or psychiatrist
- Kill the ANTs (automatic negative thoughts; see ch 5): Whenever you feel mad, sad, nervous, or out of control, write down your negative thoughts and learn to talk back to them
- Take supplements: s-adenosyl-methionine (SAME), saffron, and omega-3s to support mood; 5-hydroxytryptophan (5-HTP) if you are a worrier

FEEL BETTER FAST NOW AND LATER TIP: When your mood is low, take a walk in nature while drinking vegetable juice.

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I - Simple Brain-Healthy Habits to Improve Your Immunity

- If you are struggling with brain fog or memory issues, consider being tested for exposure to infectious diseases
- Do an elimination diet for a month to see if you have food allergies, which can damage your immune system
- Eat immunity-enhancing foods, such as onions, mushrooms, and garlic
- Watch a comedy or go to a comedy club to boost energy and immunity
- Take supplements: vitamin D (know and optimize your level), aged garlic, and vitamin C

FEEL BETTER FAST NOW AND LATER TIP: Eat a stir-fry with onion, garlic, mushrooms, and a protein; skip the rice

N - Simple Brain-Healthy Habits to Improve Your Neurohormones

- Have your hormones tested on a regular basis
- Add fiber to eliminate unhealthy forms of estrogen
- For women: Optimize estrogen for brain health
- Consider hormone replacement when necessary
- Take supplements: zinc (to help boost testosterone) and ashwagandha (to reduce cortisol and support the thyroid)

FEEL BETTER FAST NOW AND LATER TIP: Lift weights and eliminate sugar to help raise your testosterone level.

D - Simple Brain-Healthy Habits to Decrease Your Risk of Diabetes and Improve Your Weight and Blood Sugar

- Maintain a healthy weight; lose weight slowly if you are overweight (develop lifelong habits)
- Eat a brain-healthy diet (see ch 9)
 - Anti-inflammatory and colorful foods
 - Low-glycemic, high-fiber carbs
 - Protein and fat at each meal (to stabilize blood sugar and cravings)
 - Healing spices
- Know your body mass index (BMI) now and check it monthly
- Flavor dishes with cinnamon and nutmeg
- Chew sugar-free gum to boost oxygen and blood flow to your brain
- Take supplements: chromium picolinate and alpha-lipoic acid (to decrease cravings and support healthy blood sugar levels)

FEEL BETTER FAST NOW AND LATER TIP: Sniff a cinnamon stick or peppermint.

S - Simple Brain-Healthy Habits to Improve Your Sleep

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- If you snore, get assessed for sleep apnea
- Put blue-light blockers on your gadgets
- Turn off gadgets or keep them away from your head at night
- Cool your home a bit before bedtime
- Darken your bedroom
- Maintain a regular sleep schedule
- Listen to a hypnosis sleep audio
- Take supplements: melatonin and magnesium; 5-HTP (if worrying keeps you up)

FEEL BETTER FAST NOW AND LATER TIP: At bedtime, put the scent of lavender nearby and listen to hypnosis sleep audio.

There are a lot of strategies here, but I want you to come away feeling empowered, not overwhelmed. Start with just a few and add from there.

Most important rules of brain health are:

Rule #1: Never lose brain cells.

Rule #2: Never forget rule #1.

Application: Pick one or two and write them down.

Amen, Dr. Daniel G., *Feel Better Fast and Make it Last*, Tyndale House Publishers, Inc., 2018, pages 27-46 (“The Missing Strategy”).

Scripture added.