

# Feed Your Brain Study Guide



## How to Use This Study Guide

The Study Guide for this course is designed to help you take notes as you're taking the online course "Feed Your Brain". It is organized in sections that mirror the elements of the course, with plenty of room to make notes and capture your learning.

The use of the Study Guide is optional. Research shows that different people learn differently, and for many, the act of writing something down as you are learning helps to solidify the information in your brain. If you find the Study Guide helpful, use it. If not, feel free to omit it from your learning process.

## Course Overview – Feed Your Brain

You probably know that it's important to eat well, get a good night's sleep, and exercise regularly to keep your body fit and healthy. But did you know that all of these activities can impact your brain as well? Your brain is one of the most energy-intensive organs in your body, using close to 20% of your body's energy each day. Everything you do to energize or take care of your body affects your brain and mental well-being as well. In this course, we will focus on how stress, exercise, sleep, and food can impact your mood, focus, and overall brain health. You will also develop strategies to support your brain's health. Let's eat some brain food!

## Learning Objectives – Feed Your Brain

- Learn about your brain and how it is impacted by food, sleep, stress, and exercise
- Read about how stress and lack of sleep can impact not only your body, but your mind
- Understand how exercise can impact your brain function, both long-term and short-term
- Discover what foods can help your brain function at its best
- Create strategies in your daily life to optimize your brain and mental well-being

## Your Brain: A Quick Overview

Your brain isn't your body's \_\_\_\_\_ or the easiest to access, but it is extremely important for your day-to-day function. Sitting just behind your eyes, the human brain only weighs about \_\_\_\_\_ and takes up about [1.25 liters of space](#). While on average only about 3% of your body's weight, it uses 20% of your body's energy resources, which means that how you feed and take care of your body will have a tremendous impact on your brain.

When a person sees a picture of the brain the first thing noticed is usually the \_\_\_\_\_.

You may have also heard the cerebrum referred to as gray matter. This matter divided into four main sections or "lobes" by brain scientists: the \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ lobes.

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## Brain Health

You probably know that brain health is important, but what is it? The NIH defines brain health :

List the NIH definations of brain health	
1	
2	
3	
4	

[Brain Health Pillars](#) provided by the Cleveland Clinic include diet, exercise, medical health, socialization, sleep, and mental fitness.

List the NIH Definations of Brain Health	
1	
2	
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6	

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## Exercise: Assess Your Brain Health

You can help your brain function at its best by using healthy habits.

Which of these habits do you actively do? Rate yourself on a scale of 1 (low) to 10 (high).

- \_\_\_\_\_ 1. I have a diet high in fiber, fresh fruits and vegetables, nuts, and protein.
- \_\_\_\_\_ 2. I exercise regularly and include in my routine stretching, aerobic exercise and strength or weight training.
- \_\_\_\_\_ 3. I get enough sleep each night. (While everyone's sleep needs are different, 8 hours per night minimum is recommended by St. Mary's Sleep Disorder Center.)
- \_\_\_\_\_ 4. I drink plenty of water throughout the day. (To assess this, divide your weight in half and estimate that you should drink that many ounces of water per day. For example, it's recommended that a 150 lb.person drink 75 oz. of water per day, or approximately six 12 oz. glasses).
- \_\_\_\_\_ 5. I am often willing to try something new, like a new restaurant, hobby, activity, or reading a new book.
- \_\_\_\_\_ 6. I take the time to minimize stress in my life. I am aware of things that drain my energy and know what to do to rejuvenate myself or bring energy back.
- \_\_\_\_\_ 7. I am able to take time regularly to rest and relax with or without work or critical thinking involved. I take at least one full day off each week and don't skip vacation.
- \_\_\_\_\_ 8. I am active socially and supported by my friends and family.
- \_\_\_\_\_ 9. I have been to a doctor within the last year for a regular medical check-up.
- \_\_\_\_\_ TOTAL

Congratulations! The higher your score (with a maximum of 90), the higher your brain health. Shoot to have a score above 60 -- this would indicate an average of 7 or higher in each category. But don't worry, even if you scored lower, you will learn critical skills in the next section to increase your brain health.

## Your Brain & Food

You're probably familiar with the effect of caffeine on your body and mind: after drinking it, you might feel more \_\_\_\_\_ and \_\_\_\_\_, or possibly even \_\_\_\_\_.

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How your brain processes energy and what types of food are best for its success.

The brain is made of fats and proteins, and uses compounds like micronutrients and glucose.

Your brain needs \_\_\_\_\_ and \_\_\_\_\_. And these have to come from your diet.

These come from your diet by eating: \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_.

Avoid: \_\_\_\_\_ like those found in fried foods, snack foods, or sweet treats.

Your brain has \_\_\_\_\_, which are the precursors to neurotransmitters. These affect your mood, sleep/rest cycle, and attentiveness.

Eat: A varied range of foods means your brain has access to the building blocks of a range of mood messengers. Keep your diet varied -- your plate should include a rainbow of colors.

Avoid: "\_\_\_\_\_ " or \_\_\_\_\_ diets that mostly consist of \_\_\_\_\_.

Your brain needs micronutrients like \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

Eat: \_\_\_\_\_ like beans, whole grains, and sweet potatoes for sustained energy.

What is the one simple rule?

According to Dr. \_\_\_\_\_ [writing for the Harvard Health Blog](#): "Multiple studies have found a correlation between a diet high in refined sugars and impaired brain function."

## Your Brain & Exercise

[According to Dr. Salinas](#) at Harvard, "\_\_\_\_\_ helps improve the health of brain tissue by increasing blood flow to the brain and reducing the chances of injury to the brain from cholesterol buildup in blood vessels and from high blood pressure."

The NIH recommends at least \_\_\_\_\_ minutes of vigorous aerobic activity, like brisk walking, each week.

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## Journaling: Brain-Healthy Habits

After reading the sections on food and exercise, reflect on what you learned. Has reading these sections inspired motivation to change your eating or exercise habits? How might changing your eating or exercise habits influence your performance at work? Spend 10 minutes journaling on these questions.

## Your Brain & Sleep

Your brain needs sleep, too! Can you think of a time you've woken after a poor night's sleep, or after a long trip, and simply been unable to think? It turns out that sleep can have a lot of impact on the brain. But how exactly is the brain affected by sleep?

Sleep is also known to be implicated in making memories of the day "stick," a process known as \_\_\_\_\_.

"The RAND research group just came out with a 100-page analysis of how sleep affects us and what sleep deprivation can do to us—and to the economy. They estimate that between lost work and poor performance at work from lack of sleep, the U.S. alone loses \_\_\_\_\_ each year.

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## Your Brain & Stress

Your brain can change -- even as an adult. This is referred to as neuronal plasticity, or your brain's ability to be \_\_\_\_\_ or \_\_\_\_\_.

Chronic stress and high levels of stress hormones can create [long-lasting changes in the brain](#) that make you more prone to \_\_\_\_\_, \_\_\_\_\_, and learning difficulties.

## Exercise: Your Brain & Work

How can you support you brain health in the upcoming week? After each section below, fill in how you will support your brain health.

	List How You Will Support Your Brain Health for Each Section
Food	
Exercise	
Sleep	
Stress	

## Summary

Your brain is crucial to making you who you are, and your long- and short-term brain health are crucial to your performance in work and in life. This course has covered a wide breadth of topics on how to support and increase your brain health via diet, exercise, and rest. You now know how to fuel your brain through nutritious foods that support its unique composition, strengthen and protect your brain through adequate sleep and movement, and the importance of giving your brain a rest to break patterns of stress. Knowing how to support your overall brain health in these ways will keep you in top shape for your performance at work.