

Nourishing Your Brain

Scientific studies have linked better brain function to good nutrition, adequate sleep, and regular exercise. Better brain function, along with regular study, translates to better marks.

Nutrition

Your brain accounts for about 2% of your total body weight, yet its daily energy requirement amounts to up to 20% of total nutrients consumed. If you want to keep your brain functioning for peak performance, you need to support it by consuming nutrients that help the brain transmit information:

- complex carbohydrates (such as whole grains, fresh vegetables, salad, and fruit)
- essential amino acids (found in fish, lean meat, eggs, dairy products, whole grains, nuts, seeds, and fresh vegetables)
- essential fatty acids (omega-3, found in coldwater fish, such as salmon)
- vitamins and minerals (found within the above-mentioned foods)

Activity

Make a list of everything you have eaten in the last 24 hours. Trade your list with a partner. On your partner's list, highlight the nutritious foods. Underline the foods that are *not* brain food (such as caffeine, alcohol, sugars, fried foods, and processed foods). Research how these foods interfere with good brain function. Calculate the approximate percentage of brain food that your partner has eaten in the last 24 hours. Discuss your lists with your partner.

Sleep

You have probably experienced the effects of lack of sleep and will undoubtedly agree that adequate sleep is necessary for optimal brain function. Try to aim for seven to eight hours of sleep each night, particularly before a test. If you are unable to get this amount of sleep, try deep breathing techniques, or meditating for 20 minutes prior to the test.

Group Work

With the help of the Internet, answer the following questions:

- How much sleep is necessary for your age group?
- Why is it unhealthy to “pull an all-nighter” the night before a test or exam?
- What are the effects of sleep deprivation on the brain and behaviour?

Exercise

A generous supply of oxygen will help brain cells grow. For this to happen, sufficient oxygen must be transported in the blood, and the blood has to circulate efficiently through your body. Any kind of sport improves your blood circulation. Physical activity will improve all your cognitive functions, including concentration and motivation. It will also help decrease stress and anxiety.

Personal Reflection



Name: _____ Date: _____

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(continued)

- On a scale of 1 to 10, with 1 being very low and 10 being very high, rank your
 - ability to concentrate on a math test
 - motivation level in math class
 - anxiety level before a math test
- Do you think the amount of exercise you get affects your concentration, motivation, and anxiety levels? Discuss with a partner.

Group Discussion

- Exercise can take place outside of a gym or off a court. What activities can be identified as exercise?
- Do an Internet search to determine the amount of exercise needed for a healthy body. How much exercise do you get in a week? Would you consider this amount enough for a healthy body?
- Discuss ways to build routine exercise into your lifestyle.

