

What are probiotics?

Probiotics are products containing live microorganisms. They can be taken to improve the balance of bacteria in a person's intestines and are associated with health benefits.

Bacteria and Our Bodies:

Our intestines contain over 100 trillion bacteria. Many of these bacteria play an important role in protecting our health:

- They make compounds that keep harmful bacteria from spreading, helping to prevent infections.
- They help with digestion and may help our bodies digest foods more efficiently..
- They stimulate the gut's immune system.
- They change certain vitamins and make them active.
- They change which genes are active in gut cells.
- They may help to prevent colon cancer.

The balance between helpful and harmful bacteria in the gut can change. If that occurs, the helpful bacteria in the body may not be able to do these important tasks as well as before. Antibiotics, poor nutrition, inflammation, stress, and other factors can kill off the helpful bacteria in the gut. When this happens, probiotics and prebiotics may be helpful. Probiotics are easy to find as dietary supplements in health food stores and pharmacies. Good quality yogurts with live active cultures, kefir, fermented milk, miso, and a number of other foods contain healthy bacteria, or probiotics.

Taking/Choosing a Probiotic:

Watch for the following when you choose probiotics:

- Make sure the probiotic is not past the expiration date printed on the container.
- Try to use products that are refrigerated, as they often contain live, healthier cultures of bacteria.
- Protect probiotics from direct light.

How much of a probiotic should I give my child/should I take?

- Children/Adolescents are often given doses in the **5-10 billion CFU/day range**. Many products that are tailored to infants or young children are available and you can follow the dosing indicated on the label.

How often/long do they need to take them for?

- Usually probiotics are taken daily. Depending on what condition you are using them for, you may use them for a few weeks to a few months.

Caution:

Patients with extreme immune compromise or those with indwelling catheters should use caution with regard to taking probiotics. Discuss with your healthcare provider before starting.

Omega-3 Fatty Acids/Fish Oil:

Fish oil is the richest, natural source of healthy fatty acids which may be very helpful for brain function. The two important ingredients in fish oil are called **EPA and DHA**.

For neurocognitive support, the dose should be:

- 500mg of EPA+DHA for 4-6 year old
- ~1g of EPA+DHA/day for 7-12 years
- ~2g of EPA+DHA/day for adolescents.

It is important to read the back label of the fish oil to see what the dose of EPA and DHA is for that fish oil.

Supplement Facts		
Serving Size 1 Teaspoon (5 mL)		
	Amount Per Serving	% DV
Calories	40	
Total Fat	4 g	5%**
Saturated Fat	1 g	5%**
Polyunsaturated Fat	2 g	†
Monounsaturated Fat	1 g	†
Cholesterol	20 mg	7%
Vitamin E (as natural d-alpha tocopherol)	6.7 mg	45%
Norwegian Fish Oil	4.6 g	†
Omega-3 Fatty Acids*	1,600 mg	†
EPA (Eicosapentaenoic Acid)*	800 mg	†
DHA (Docosahexaenoic Acid)*	500 mg	†

** Percent Daily Values are based on a 2,000 calorie diet.
 † Daily Value (DV) not established. *Reported as triglycerides.
 Other Ingredients: Natural flavors, antioxidant blend (sunflower oil, natural mixed tocopherols, rosemary extract).
 Contains fish (anchovy, sardine, mackerel, jack mackerel).
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In the above example, if you gave 1 teaspoon of fish oil a day, this would be equal to 1300mg/day which is an adequate dose for a 7-12 year old.

Safety and side effects of Fish Oil/Tips for Taking:

In general, Omega-3 Fatty acids are very safe. There can be minor side effects: burping, reflux, diarrhea. If your child can swallow capsules, can try freezing as this can reduce these sx's.

It is uncertain if patients with fish or shellfish allergies can safely consume fish oil supplements.

If you are giving your child liquid fish oil you can mix in peanut butter or orange juice. Don't mix in water or milk, the fish oil won't mix.
