

# FISH & OMEGA-3s

## ***Should I take omega-3 or fish oil supplements?***

**RECOMMENDATION:** Include omega-3-rich foods - especially fish - in your diet. Taking fish oil supplements in moderation is safe.

### **What's the evidence?**

#### **For Prostate Cancer *Prevention*?**

Omega-3 oils from fish might prevent aggressive prostate cancer:

- Omega-3s have anti-cancer effects in lab studies. But, although some studies showed that men who ate fish and omega-3-rich diets had a lower risk for prostate cancer, other studies have not.
  - These differences are probably due to the types of fish eaten and how it was cooked.
- Recently researchers found that although the prostate cancer risk was not lowered, a lower death rate from aggressive prostate cancer was found in men who ate the most fish.<sup>1</sup>

#### **For Prostate Cancer *Treatment*?**

Omega-3s from fish might slow down progression or recurrence of prostate cancer:

- In a few studies that looked at diet after a prostate cancer diagnosis, men who ate the most fish had the lowest risk of tumour growth and death from prostate cancer.<sup>2</sup>
- A recent clinical trial study showed some benefits for men who took fish oil supplements for 6 weeks before they had prostate cancer treatments.
  - Men who ate a low fat diet and took 5,000 milligrams (mg) of fish oil daily didn't improve some blood tests for prostate cancer but did show slower cancer growth.<sup>3</sup>
- Although omega-3s supplements can reduce the risk of heart disease, the potential role of supplements in prostate cancer treatment remains uncertain.
- Some men worry that eating too much ALA can cause prostate cancer, but a recent research review showed that there is no proof that it does.<sup>4</sup>

### **Omega-3s from foods - like fish - are needed for everyone's good health including men diagnosed with prostate cancer**

#### **Omega-3 facts:**

Omega-3s are also known as 'essential fatty acids' ('EFA') because they must be supplied by the diet like vitamins.

- Called fats, oils or fatty acids - or sometimes 'n-3s' - omega-3s are types of polyunsaturated fatty acids (PUFA).
- They are important for good health as parts of cell membranes and are used by the nervous system for vision and brain function.
- By reducing inflammation throughout the body, omega-3s are thought to be helpful in treating heart disease and many other health conditions.
- There are 3 commonly eaten kinds of omega-3s:
  - Alpha-linolenic acid (ALA) found in plants oils like flax and walnut.
  - Eicosapentanoic acid (EPA) & Docosahexanoic acid (DHA), found in fish.
- A fourth type of EFA is an omega-6 fatty acid called Linoleic Acid (LA) found in plant oils.

Eating balanced diets with a variety of omega-3-rich foods including at least 2 servings of fish per week might prevent aggressive prostate cancer or reduce cancer progression or recurrence for men already diagnosed with prostate cancer.

## The bottom line: Eat fish or take fish oil supplements

Men need about 1,600 mg of omega-3s per day which they can get from a varied diet that includes fish or supplements.

- While having up to 3,000 mg of DHA and EPA each day is safe, talk to your doctor before taking supplements, particularly if you have immune system problems or are taking aspirin, blood thinners or drugs for high blood pressure.
  - Talk to your doctor about stopping taking supplements just before and after surgery or radiation.
- Omega-3 or fish oil supplements should be taken with food. If you experience a bad aftertaste or heartburn, try taking several smaller doses throughout the day.

Approximate omega-3 content for various foods in milligrams (mg)

| Food item                        | Serving/amount |       | Omega-3 content |
|----------------------------------|----------------|-------|-----------------|
| <b>Seafood (DHA &amp; EPA)</b>   |                |       |                 |
| Salmon                           | 2.5 oz         | 75 g  | 1250-3300 mg    |
| Salmon oil                       | 1 tsp          | 5 ml  | 1400-1600 mg    |
| Sardines, canned                 | ½ can          | 75 g  | 1200 mg         |
| Oysters                          | 3              | 75 g  | 1100 mg         |
| Cod liver oil                    | 1 tsp          | 5 ml  | 900 mg          |
| Tuna, canned                     | ½ can          | 75 g  | 700 mg          |
| <b>Plant foods (ALA)</b>         |                |       |                 |
| Walnuts (English)                | ¼ cup          | 30 g  | 2700 mg         |
| Flaxseed, ground                 | 1 tbsp         | 15 ml | 2500 mg         |
| Walnut oil                       | 1 tbsp         | 15 ml | 1500 mg         |
| Vegetable oil, (Canola, soybean) | 1 tbsp         | 15 ml | 1200-1350 mg    |

Health Canada, Canadian Nutrition File, 2010: [www.healthcanada.gc.ca/cnf](http://www.healthcanada.gc.ca/cnf)

**This information is not meant to replace advice from your doctor or dietitian.**

## Worried about eating too much fat? Fatty fish are healthy!

Eat at least two servings of cold water, 'fatty' fish each week.

- Unlike whitefish (such as sole or halibut), fatty or oily fish (such as salmon, mackerel, herring, sardines, tuna and trout) are high in fat with lots of EPA and DHA.
- Cooking style is important - poach or grill, but avoid frying or deep-frying.
- Health Canada warns us to limit eating fresh/frozen tuna, shark, swordfish, escolar, marlin, and orange roughly to once a week or less to avoid eating too much mercury.

Fats are important parts of our diets, but Canadians tend to overeat saturated and trans fats.

- Many processed foods - like baked products and 'junk foods' - are full of these fats, and also high in calories.
  - Saturated fats are also found in animal foods like meat and dairy products.
  - Trans fats are also found in 'partially hydrogenated' oils like vegetable shortening and some hard margarines.
- The key for health is balance - avoid too much overall fat while eating foods with healthier oils.
  - Replace saturated and trans fats with olive oil and other vegetable oils like canola, safflower, flax or walnut.
  - Eat less fried and processed foods, use non-hydrogenated margarine and choose leaner cuts of meat.

1. Szymanski KM, et al. Fish consumption and prostate cancer risk: A review and meta-analysis. *American Journal of Clinical Nutrition*. 2010; 92(5):1223-33.
2. Chavarro JE, et al. A 22-y prospective study of fish intake in relation to prostate cancer incidence and mortality. *American Journal of Clinical Nutrition*. 2008; 88(5):1297-303.
3. Aronson WJ, et al. Phase II prospective randomized trial of a low-fat diet with fish oil supplementation in men undergoing radical prostatectomy. *Cancer Prevention Research*. 2011; 4(12):2062-71.
4. Simon JA, et al. The relation of alpha-linolenic acid to the risk of prostate cancer: A systematic review and meta-analysis. *American Journal of Clinical Nutrition*. 2009; 89(5):1558S-1564S.



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