

## Omega 3 fats

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### What are omega 3 fats?

Omega 3 fats are a type of polyunsaturated fat. Everyone needs omega 3 fats in their diet for good overall health.

### What are the benefits of omega 3 fats?

Omega 3 fats:

- Are good for brain and heart health.
- May help decrease inflammation in some people.

### What foods have omega 3 fats?

You can get omega 3 fats from fish and plant foods.

Fish sources of omega 3 fats are more beneficial than plant sources. This is because our bodies are not very good at changing the plant forms of omega 3 fats to the animal forms that our bodies can use.

<b>Fish sources</b>	Excellent sources of omega 3 fats include these fatty, cold water fish: <ul style="list-style-type: none"><li>• salmon</li><li>• sardines</li><li>• mackerel</li><li>• herring</li></ul>	See page 4 for a list of fish that have excellent, good or fair amounts of omega 3 fats.
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**Plant sources**

Plant foods with the highest amounts of omega 3 fats include:

- canola oil and soybean oil, or margarines made with these oils
- flax seeds
- walnuts
- soybeans and tofu

**How much omega 3 fat do I need and how do I get it?**

- Health Canada recommends about 1 gram (1000 mg) of omega 3 fats each day for the most health benefits (lowering lipids).
- Eat a 3 to 4 ounce portion of various fish, especially fatty fish, at least 2 times a week.
- Include a variety of foods that contain the plant form of omega 3 fats **in addition to fish, not instead of it.**

**How can I include plant sources of omega 3 fats in my diet?**

- Sprinkle a tablespoon of ground flax seed or hemp seed on cereal or yogurt, or add some to muffins, pancakes, loaves or fruit smoothies.
    - Seeds need to be ground to get the full benefit. Put the seeds in a coffee grinder, blender or food processor until they are the texture of finely ground coffee. Store ground seeds in the refrigerator.
  - Sprinkle a few walnuts onto a salad or cereal.
  - Cook and bake using canola oil or a margarine made from canola oil.
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## What if I don't like fish?

Here are other ways to get fish oil as a source of omega 3 fats in your diet:

### Omega 3 eggs

Omega 3 eggs are produced by hens fed a diet containing flax seed. The hen's body converts the omega 3 fat from the flax seed they are fed into omega 3 fats that our bodies can use. These eggs contain between 20 to 60 mg of omega 3 fats per egg. They do, however, still contain cholesterol and should be limited to 2 per week.

### Omega 3 liquid eggs

Omega 3 liquid eggs are real eggs in liquid form that have been changed to have:

- fish oil added to them
- some of the fat and cholesterol removed

These eggs are packaged in cartons similar to milk cartons. A 100 ml serving of Omega Plus liquid eggs is equal to 2 eggs and has 500 mg of omega 3 fats.

### Omega 3 (Fish oil) supplements

Omega 3 capsules are an option that you can discuss with your doctor. If you choose to buy them:

- Be sure that the omega 3 fat comes from fish sources rather than from plant sources.
- Read the ingredient list to make sure that the source of omega 3 fat is from fish body oil rather than fish liver oil.

Omega 3 supplements can slow blood clotting in some people or in very high doses. Talk to your doctor before starting fish oil capsules.

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## What about mercury in fish?

Certain types of fish should be eaten in moderation because they sometimes exceed Canada's mercury intake guideline.

The following fish are higher in mercury so limit these to once a week:

- swordfish
- shark
- tuna, fresh or frozen (not canned)

Young children and women of childbearing age should limit themselves to one serving of these fish a month.

## Which seafood has the most omega 3 fats?

<b>Excellent</b>	<p>Contain more than 1 gram (1000 mg) in a 3½ ounce serving:</p> <ul style="list-style-type: none"> <li>• Bluefish, Atlantic</li> <li>• Herring</li> <li>• Mackerel</li> <li>• Salmon, Atlantic</li> <li>• Salmon, Chinook</li> <li>• Salmon, pink, canned</li> <li>• Salmon, sockeye, canned</li> <li>• Sardines, Pacific, canned in tomato sauce</li> <li>• Trout (excluding rainbow)</li> <li>• Tuna, bluefin</li> <li>• Whitefish</li> </ul>
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<b>Good</b>	<p>Contain between 0.4 and 0.9 gram in a 3½ ounce serving:</p> <ul style="list-style-type: none"> <li>• Carp</li> <li>• Catfish</li> <li>• Crab</li> <li>• Halibut</li> <li>• Lobster</li> <li>• Mullet</li> <li>• Pollock</li> <li>• Rainbow trout</li> <li>• Shrimp</li> <li>• Striped bass</li> <li>• Sturgeon</li> <li>• Tuna, white, canned in water</li> </ul>
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**Fair**

Contain less than 0.3 gram in a 3½ ounce serving:

- Clams
- Cod
- Flounder
- Grouper
- Haddock
- Perch
- Plaice
- Red snapper
- Sole
- Swordfish
- Tuna, yellowfin and light

Source: USDA Nutrient Database for Standard Reference, Release 14 (July 2001)



**Remember!**

**Buy seafood packed in water.**

**If you buy seafood packed in oil, you will lose much of the omega 3 fats when you drain the oil.**

Use these measurements for the recipes on the following pages:

Imperial		Metric
1 cup	=	250 ml
1 tablespoon	=	15 ml
1 teaspoon	=	5 ml
1 ounce	=	25 g

## Individual Omega Plus Liquid Egg Frittatas

6	Omega Plus liquid eggs
½ cup	milk
¼ tsp	pepper
½ cup	shredded light cheddar cheese
¼ cup	finely diced green onions
2 tbsp	finely diced red peppers
2 tbsp	chopped fresh parsley (optional)
2	plum tomatoes, seeded and chopped

1. Preheat oven to 350°F. Spray muffin tin with cooking oil, or lightly grease.
2. In a bowl, whisk eggs with milk, salt and pepper. Stir in cheese, onions, peppers, tomatoes and parsley.
3. Pour equal amounts of egg mixture in 9 muffin cups. Place in centre of preheated oven and bake for 17 to 20 minutes, or until set in the centre.
4. Cool in pan set on a rack for 10 minutes.
5. Using a blunt knife, loosen frittatas all around and lift out. Cool to room temperature before wrapping individually in plastic wrap.
6. Store in refrigerator for up to 3 days. Reheat, if you like, on medium, in microwave for 1 minute before eating.

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Makes 9 servings.

Can be made at least 8 hours ahead.

Nutrients per frittata:

75 calories, 4 g fat, 3 g carbohydrate,  
7 g protein, 125 mg cholesterol

Adapted from:

Homemakers, February/March 2002

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## Poached Salmon

- 2 salmon fillets (4 oz each), boneless, skinless
- 1 medium onion, sliced
- 1 large carrot, sliced
- 1 lemon, sliced
- 1 pot of water

1. Add onion, carrot and lemon slices to a pot of boiling water.
2. Reduce heat and simmer for 5 minutes.
3. Drop in fillets one at a time. Each fillet will cook in 6-8 minutes.
4. Remove from water.
5. Serve with brown basmati rice, steamed vegetables and a green salad.

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Makes 2 servings.

Nutrients per fish serving: 244 calories, 5 g fat, 98 mg cholesterol,  
0 g carbohydrate, 31 g protein

Adapted from: Heritage Salmon recipe.

## Apple Tuna Sandwich

- 1 can (6.5 oz) tuna in water, drained
- 1 small apple, halved (remove seeds) and chopped
- ¼ cup low fat vanilla (or plain) yogurt
- 1 tsp honey
- 1 tsp prepared mustard
- 4 slices whole wheat bread
- 2 slices iceberg lettuce

1. Combine tuna, apple, yogurt, honey and mustard in a bowl.
2. Evenly divide the mixture onto 2 slices of bread, top with lettuce leaf and second piece of bread.
3. Cut and serve.

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Makes 2 servings.

Nutrients per serving: 320 calories, 4 g fat, 30 mg cholesterol,  
41 g carbohydrate, 30 g protein

## Grilled Fish with Mediterranean Chopped Salad

### Grilled fish:

1 Tbsp	lime juice
1 Tbsp	extra-virgin olive oil
2 cloves	garlic, minced
½ tsp	ground cumin
¼ tsp	dried oregano
1/8 tsp	crushed red pepper
	ground pepper to taste
4 (4 oz) pieces	halibut or salmon fillet

### Mediterranean Chopped Salad:

1 medium	tomato, seeded and diced
½ cup	diced cucumber
2 Tbsp	chopped scallions
2 Tbsp (1 med)	minced jalapeno pepper
2 Tbsp	chopped fresh cilantro or parsley
2 tsp	lime juice
2 tsp	extra-virgin olive oil
	ground pepper to taste

1. Whisk lime juice, oil, garlic, cumin, oregano, crushed red pepper, and pepper in a shallow glass dish. Add fish and turn to coat. Cover and marinate in the refrigerator for 20 to 30 minutes.
2. Meanwhile, prepare Mediterranean Chopped Salad. Combine all salad ingredients in a medium bowl; toss to coat.
3. Heat grill to medium-high. Lightly oil grill. Place fish on grill. Close grill cover and cook until fish is opaque in the centre, 3 to 5 minutes per side.
4. Serve immediately, topped with Mediterranean Chopped Salad.

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Makes 4 servings.

Nutrients per serving: 245 calories, 8 g fat, 50 mg cholesterol  
3 g carbohydrate, 31 g protein

Adapted from: Tufts University Health & Nutrition Letter (June 2002)