



CESSH
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SCIENCE SEAFOOD HEALTH

Seafood and
your health

**CORONARY
HEART DISEASE**

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Seafood and your health

Evidence shows that eating a balanced diet high in seafood will reduce your risk of some chronic conditions, or help you manage your symptoms.

This booklet will help guide your food choices and includes a 14 day meal plan specifically designed for people at high risk of developing coronary heart disease.

How can seafood help my heart?

A healthy balanced diet including seafood and regular physical activity can help to reduce the risk of coronary heart disease. The benefits of eating seafood include:

- protection against cardiovascular diseases;
- protection against coronary mortality;
- lowered blood pressure;
- reduced heart rate; and
- protection for veins and arteries.

Selecting seafood is also a smart choice for lowering cholesterol, and the omega-3 fatty acids in oily fish can actually help to prevent coronary heart disease. In addition to omega-3, seafood contains many other nutrients beneficial to health, including: selenium; iodine; zinc; calcium and vitamin D.

It's also low in saturated fat, high in protein, and a good source of energy.

Iron	Iron is important for maintaining energy levels and a strong immune system. Mussels, oysters and tinned sardines are good sources of iron.
Iodine	Iodine is important for growth and seafood is the best natural source of iodine. Oysters, mussels and scallops are good sources of iodine.
Folate	Folate aids the prevention of neural tube defects in growing babies. Oysters and mussels are sources of folate.
Vitamin B12	Vitamin B12 helps the brain to work normally. Sardines, mussels and tuna are good sources of Vitamin B12.
Vitamin D	Vitamin D is good for the immune system and strong bones and muscles. Australian salmon, Atlantic salmon and tuna are good sources of Vitamin D.
Vitamins A & E	Vitamins A & E are powerful antioxidants which help the immune system and eye health. Mussels are the richest seafood source of vitamin A. Atlantic salmon and sardines are good sources of vitamin E.
Calcium	Calcium is important for maintaining healthy teeth and bones. Australian salmon and sardines are rich sources of calcium.

How much seafood do I need to stay healthy?

Evidence suggests that we should aim to consume 600mg of omega-3 per day for men, and 500mg for women.

Some types of seafood contain higher levels of Omega-3s than others. So the number of serves of seafood you need to eat each week to maintain good health depends on the type of seafood you eat. Generally, one serve of seafood is around 150grams.



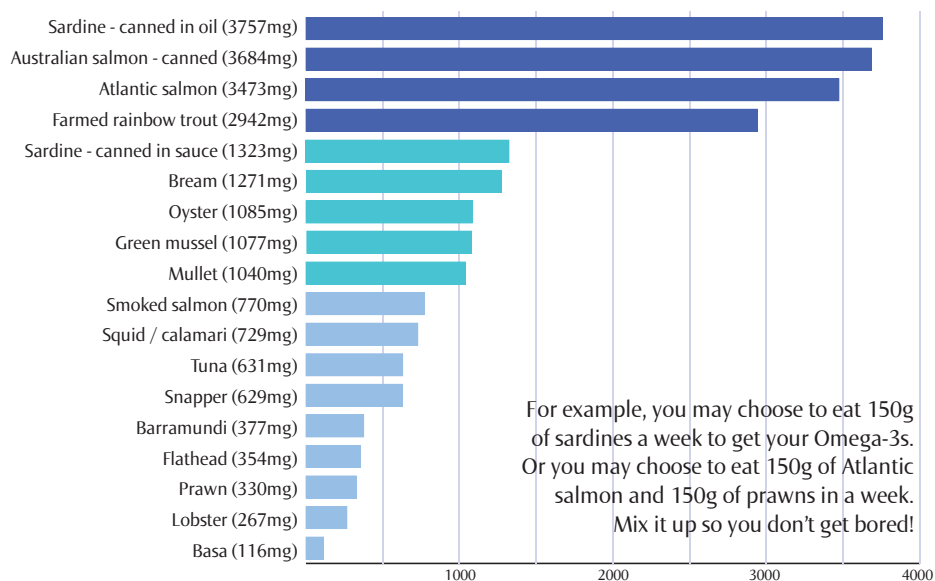


Omega-3s

Omega-3 fatty acids (Omega-3s) are essential to our health. Our bodies cannot produce these fatty acids and so we need to eat foods that contain them. The best source of omega-3s is seafood. In fact, the regular intake of Omega-3s as part of a healthy diet provides health benefit for conditions such as diabetes, heart disease, arthritis and some cancers.













How much omega-3?

Adults should aim to include 3500 - 4000mg of omega-3 in their diet each week. This table shows you how much Omega-3 is in a 150g serve of a variety of fish and seafood:



Which fish to choose?

Examples of seafood that are high, medium or low in Omega-3s.

A	B	C
High omega-3	Medium omega-3	Low omega-3
 Atlantic salmon	 Bream	 Baramundi
 Trout	 Mussels	 Snapper
 Sardines	 Oysters	 Smoked salmon
 Canned salmon	 Mullet	 Canned tuna



Menu planner

Menu Suggestion: Week One

(Choose one item for each meal)

Breakfast

Cereal & reduced fat milk

Poached eggs on toast

Egg white omelette with smoked salmon

Lunch

Tuna bean salad

Canned salmon salad

Tuna Caesar wraps

Smoked salmon wraps

Tuna and green bean sushi rolls

Dinner

Grilled trout with BBQ vegetables

Simple fish in green curry

Linguine with smoked salmon & rocket

Garlic prawn skewers

Dessert

Fruit (2 pieces)

Low fat yoghurt (200ml tub)

Small bowl of low fat ice-cream

A handful of nuts

Menu planner

Menu Suggestion: Week Two

(Choose one item for each meal)

Breakfast

Cereal & reduced fat milk

Sardines on toast

Boiled eggs & tomato slices on toast

Lunch

Tuna & salad roll

Potato salad

Coleslaw and bean salad

Caesar salad (no dressing)

Smoked salmon sushi rolls

Dinner

Grilled mullet with parmesan potatoes
& vegetables

Salmon pasta with fresh garden salad

Steamed trout with spring vegetables
& salsa verde

Dessert

Fruit (2 pieces)

Small bowl of low fat custard

Low fat yoghurt (200ml tub)

A handful of nuts

Recipes

Salmon pasta with fresh garden salad (Serves 2)

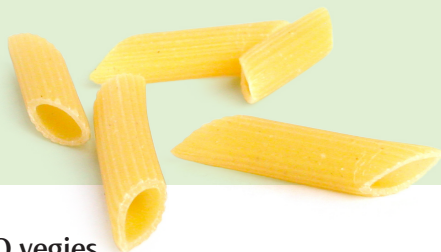
Ingredients:

2 salmon fillets (120g each), cut into cubes	½ to 1 cup of chicken stock
extra virgin olive oil	2 cups of pasta (any sort)
1 small onion, diced	1 packet of soup (French onion/ pea and ham)
1 x 400g tin of diced tomatoes	

Method:

1. Add oil to frypan and cook onion until soft. Add salmon and cook.
2. Add packet of soup and the tin of tomatoes. Stir. Add stock till sauce reaches desired consistency and simmer for about 10 minutes or until fish is cooked.
3. While the sauce is simmering, cook pasta.
4. Serve with a fresh green garden salad.

*For a variation, leave out the stock and serve the sauce over rice.



Grilled trout with BBQ vegies (Serves 2)

Ingredients:

2 trout fillets (120g each)	1 baby zucchini, halved lengthways
1 tbsp olive oil	1 red capsicum, seeded and cut into two
Juice of ½ lemon	1 yellow squash, halved
1 large red onion, cut into 4 wedges	1 firm ripe tomato, halved
2 flat mushrooms, sliced thick	olive or canola oil spray
1 baby eggplant, halved lengthways	

Method:

1. Combine oil and juice in a small bowl. Brush vegetables with the mixture. Heat barbecue and lightly spray with oil.
2. Barbecue vegetables until tender (about 10 minutes depending on thickness), turning after 5 minutes.
3. Once the vegetables have been turned, grill the trout fillets on the barbecue for about 2 minutes each side or until cooked through (thicker fish pieces may need a little extra time).



Recipes

BBQ garlic prawn skewers (Serves 2)

Ingredients:

- | | |
|------------------------|---------------------------|
| 12 prawns | 4 small mushrooms, sliced |
| 1 garlic clove, minced | 8 cherry tomatoes |
| 1 tbsp olive oil | ¼ red capsicum |
| ¼ zucchini, sliced | |

Method:

Pre-heat the BBQ. Soak prawns in garlic and olive oil while you chop vegetables. Thread prawns and vegetables onto skewers, and BBQ until prawns turn pink.



Tuna and bean salad (Serves 2)

Ingredients:

- | | |
|------------------------------|-----------------------|
| 1 small tin tuna | ¼ red capsicum, diced |
| 1 small tin 4 bean mix | ¼ red onion, diced |
| 5 cherry tomatoes, quartered | low fat mayonnaise |

Method:

Drain tuna and beans. Combine in a bowl and mix through diced vegetables. Add low-fat mayonnaise to taste.

Smoked salmon wraps (Serves 2 – 4)

Ingredients:

- | | |
|---------------------------------|-----------------------------|
| 100g smoked salmon | 1 tbsp capers, chopped |
| 2 hard boiled eggs | 1 tsp fresh chives, chopped |
| 2 slices wholemeal lavash bread | 25g baby English spinach |
| 2 tbsp low fat mayonnaise | |

Method:

1. Peel and mash the eggs. Add the mayonnaise, capers and chives and mix to combine.
2. Lay the lavash on a flat surface. Spread the egg mixture over the centre of the lavash and top with the spinach and smoked salmon.
3. Roll up to enclose the filling. Cut into thick slices to serve.



Recipes

Steamed rainbow trout with spring vegetables & salsa verde (Serves 2)

Ingredients:

4 x 120g pieces of trout
salt and pepper
Sprigs of fresh dill
1 cup fresh basil leaves
sprigs of fresh rosemary
4 baby carrots
2 whole florets broccolini
2 small spring onions, trimmed
4 small new potatoes
2 baby zucchinis
handful of snow peas or green beans

Salsa Verde*:

1 cup chopped fresh parsley (or use a mix of parsley & basil)
1 clove of garlic
2-3 anchovies in oil, drained
1 tbsp drained capers
1 tbsp white wine vinegar or freshly squeezed lemon juice
3-4 tbsp extra virgin olive oil

*Place everything in a mortar or food processor and blend to a chunky paste

Method:

1. Place fish pieces in the centre of aluminium foil. Sprinkle with salt and pepper and place dill sprig on top. Roll up, pierce all over with the point of a sharp knife, and set aside.
2. Place the basil leaves and rosemary sprigs in the bottom of a steamer and add about 4cm of water. Bring to the boil. Then arrange the vegetables in the steamer. Cover and steam for about 6 minutes.
3. Make the salsa verde.
4. Push the vegetables aside and nestle the foil-wrapped fish amongst them, then steam a further 6 minutes, or until the fish and vegetables are tender.
5. Unwrap the fish, serve surrounded by the steamed vegetables, and drizzle with salsa verde.



Fortnightly shopping list

Grocery

Cereal (rolled oats, bran flakes or Weetbix)

Eggs

Tuna & salmon (cans)

Sardines (can)

Three bean mix (can)

Rice (brown & jasmine)

Pasta (linguine & penne)

Extra virgin olive oil /Canola oil

Mayonnaise, low fat

Lite coconut milk (can)

Curry paste

Dried apricots

Mixed nuts

Dairy

Milk, reduced fat

Cheese & cottage cheese,
reduced fat

Parmesan cheese

Yoghurt, low fat

Custard, low fat

Crème fraîche

Seafood

Mullet

Bream

Trout

Salmon

Prawns

Smoked salmon

Fruit and vegetables

Apples, pears

Oranges, mandarins, lemons

Bananas

Tomatoes/cherry tomatoes

Carrots

Pumpkin, squash

Mushrooms

Baby spinach

Salad leaves/rocket

Caesar salad mix/Cos lettuce

Fresh herbs-parsley, basil, chives

Garlic & ginger

Red onions/Spring onions

Leeks

Potatoes

Zucchini

Broccoli/broccolini, cauliflower

Capsicums

Asian greens

Snow peas

Bean sprouts

Freezer

Peas, corn

Green beans

Ice-cream, low fat

Bakery

Bread (multigrain & rye)

Lavash bread, wraps

Bread rolls

Rye crisp bread & crackers



For more information on seafood and health
please visit **www.cessh.curtin.edu.au**

For more information on CHD visit:

Heart Foundation
www.heartfoundation.org.au

National Health and Medical Research Council
www.nhmrc.gov.au