

**“The beauty of seafood
is that you could eat a
portion of it every day for
a month without eating
the same thing twice.”**

**Professor Michael Crawford,
Seafood and Health Conference
28 January 2009**

Seafood is delicious, versatile and one of the most nutritious foods we can eat. It is low in calories, high in protein and rich in vitamins, minerals and natural oils that are great for every part of the body.

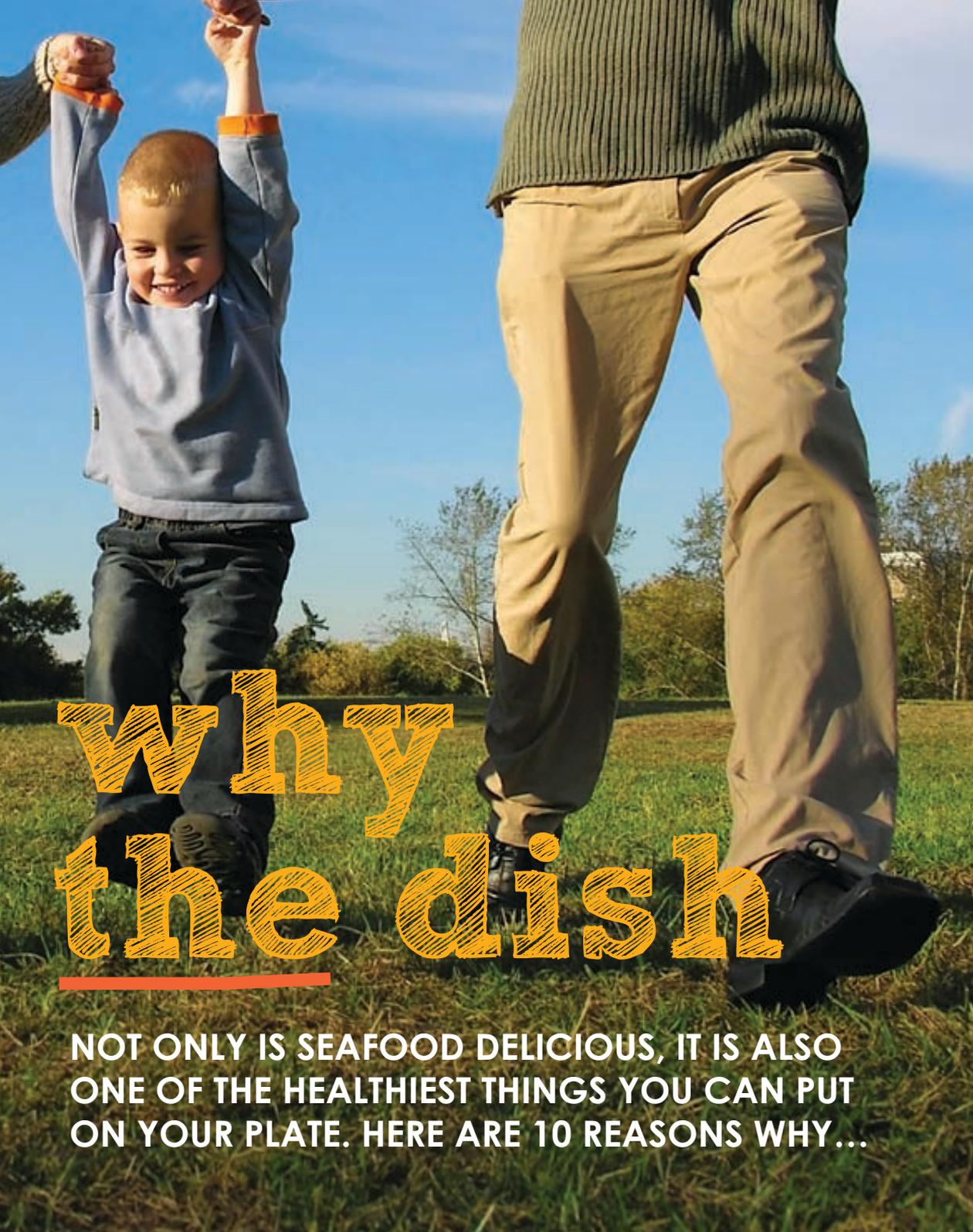
- 04 10 reasons why fish is the dish**
- 10 Which fish?**
- 14 How to buy seafood**
- 15 Sustainability**
- 15 2 a week**
- 16 How to cook seafood**



enjoy seafood
2 a week



reasons fish is



why the dish

NOT ONLY IS SEAFOOD DELICIOUS, IT IS ALSO ONE OF THE HEALTHIEST THINGS YOU CAN PUT ON YOUR PLATE. HERE ARE 10 REASONS WHY...

1 Great for your heart

Doctors have known of strong links between fish and healthy hearts ever since they noticed that fish-eating Inuit populations in the Arctic had low levels of heart disease. One study has suggested that adding one portion of fish a week to your diet can cut your chances of dying from a heart attack by up to half.

Clearing the vessels

2

Eating fish regularly can improve your circulation and reduce the risk of thrombosis – painful blood clots in the arteries that can be fatal.

This is because fish oils contain a lot of eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). If a diet is rich in EPA and DHA, the body is less likely to use other fats that produce powerful versions of hormone-like substances called eicosanoids. These powerful eicosanoids make the body more likely to suffer inflammation and form blood clots.

So more EPA and DHA means less risk for your circulation.

Fish oils are also thought to increase the levels of nitric oxide released by the body into the blood, which helps to relax the blood vessels and improve blood flow.

One reason that fish is thought to protect the heart is that eating less saturated fat and more Omega-3 can help to lower the amount of cholesterol and triglycerides in the blood – two fats that, in excess, increase the risk of heart disease. Omega-3 fats also have natural built-in anti-oxidants, which stop the hardening and damaging of artery walls.

Regularly eating fish oils is also thought to reduce the risk of arrhythmia – irregular electrical activity in the heart which increases the risk of sudden heart attacks.

Joint benefits

3

Including fish as a regular part of a balanced diet has been shown to help the symptoms of rheumatoid arthritis – a painful condition that causes joints to swell up, reducing strength and mobility. Studies also show that sufferers feel less stiff and sore in the morning if they keep their fish oil intake topped up.

Recent research has also found a link between Omega-3 fats and a slowing down in the wearing down of cartilage that leads to osteoarthritis, opening the door for more research into whether eating more fish could help prevent the disease.



4

The eyes have it

Eating oil-rich fish regularly can also help keep eyes bright and healthy.



According to a recent study, Omega-3 fatty acids can help protect the eyesight of people suffering with age-related macular degeneration (AMD), a condition caused by the deterioration of the retina which causes blurred, fuzzy or distorted vision. Scientists recommend that people suffering with AMD should eat oil-rich fish at least twice a week, while some experts have also suggested that an Omega-3-rich diet can cut a person's risk of getting AMD by a third.

Fish and shellfish are also known to be rich in retinol – a form of vitamin A that is easily absorbed into the body and helps boost night vision.

5

Essential nutrients

Fish is high in minerals such as iodine and selenium, which keep the body running smoothly.

Iodine is essential for the thyroid gland, which controls growth and metabolism, while selenium is used to make enzymes that protect cell walls from cancer-causing free radicals, and helps prevent DNA damage caused by radiation and some chemicals.

Fish is also an excellent source of vitamin A, which is needed for healthy skin and eyes, and vitamin D, which is needed to help the body absorb calcium to strengthen teeth and bones.

Shellfish and prawns are rich sources of zinc, which helps to develop healthy muscles and boosts the immune system. Zinc is also important for reproductive health.

Take a deep breath

A number of studies have suggested that fish may help protect lungs. One found that children suffering from asthma were more likely to show an improvement when fish oils were introduced into their diet, while another suggested that children who eat lots of fish may be less likely to become asthmatic. Fish may also help to increase your 'puffing' power, with research showing that people who eat a lot of fish tending to have more powerful lungs in old age than those who eat none.



Brightening your outlook

7

Research has highlighted links between a lack of Omega-3 fatty acids in a diet and a higher risk of depression. Countries with a fish-rich diet such as Japan have unusually low rates of seasonal affective disorder, where sufferers experience symptoms of depression in the winter months. Other studies have shown that people suffering with severe depression have lower than normal levels of the Omega-3 fats EPA and DHA.

Mums who eat a lot of fish also seem to be much less likely to suffer from post-natal depression, and keeping Omega-3 levels topped up can help people deal better with stress.



Your skin looks great

8

Not only do Omega-3 fats help the skin protect itself against harmful effects of the environment such as UV damage, but eating lots of fish oils can also help with the symptoms of skin conditions such as eczema and psoriasis, making skin feel less itchy.

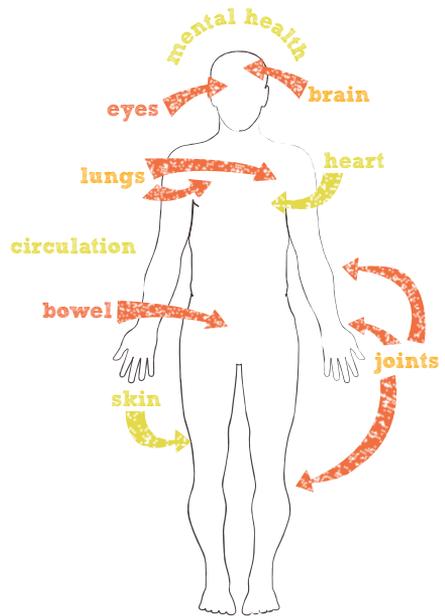
Fish is also a rich source of protein – an essential ingredient of collagen, which helps to hold back the years, keeping skin firm and more resistant to the effects of ageing.



9

Good for down below

There is some evidence to suggest that a diet rich in fish oils can help to protect against serious inflammatory bowel diseases (IBD) such as Crohn's disease and ulcerative colitis. Studies of the Inuit populations in the Arctic have shown very low levels of IBD, and some scientists believe this may be thanks to Omega-3 fats. There is also some evidence that taking in more Omega-3 fats may help slow the progression of disease in some IBD sufferers, and more research is being done.



10

Boost your brainpower

The human brain is almost 60% fat, and much of this is the Omega-3 fat DHA. Studies

have shown that people who eat plenty of fish during their lives tend to experience less dementia and memory problems as they get older.

Other research has also suggested that adding more DHA to the diet of children with attention-deficit hyperactivity disorder can reduce their behavioural problems and improve their reading skills, while there have also been links suggested between DHA and better concentration.



Flatfish

We are blessed in the UK to be surrounded by a superb array of flatfish. Flatfish like **halibut**, **turbot** and **brill** have a creamy-white firm meaty flesh that tastes great with fish stock or white wine sauces. Other species such as **lemon sole**, **Dover sole** and **plaice** have a sweet delicate flesh, ideal for cooking on the bone.

Flatfish are great for your health. They are low in fat and packed full of nutrients that will boost your immune system and help to convert food into energy.



Roundfish: Coldwater

Cod is rightly regarded as one of the world's great coldwater fish but there are plenty more similar species worth investigating too. **Coley**, **whiting** and **pollack** are also from the cod family and have a sweet, light, and flaky to firm flesh. These fish offer great value for money. **Monkfish** and **John Dory** yield some fantastic meat and can be eaten with Mediterranean flavours, salsas and peppery sauces. Some underrated species such as **gurnard**, **grey mullet** and **mackerel** are also delicious to eat and are good sources of Omega-3.



Roundfish: Warmwater

These fish are often referred to as 'exotics'. Predominantly found in warm, tropical waters around the world, exotics are imported to the UK daily – even fish from Australia can be in the UK within 36 hours of being caught. Some species such as **sea bass**, **sea breams** and **red mullet** are also found in temperate waters and around the southerly coasts of the UK in spring and summer. **Sea bass** has a delightful taste which stands on its own, but also works well with stronger flavours and is particularly popular in Thai cuisine.



Game Fish



Game fish such as **tuna**, **bonito**, **kingfish**, **marlin** and **escolar** are imported into the UK from warmer waters around the world – these species rarely swim near UK shores. They provide large loins of boneless meat, which can be cut into skinless and boneless portions. **Kingfish** (or **king mackerel**) has a rich, oily, firm flesh and like **mackerel** works better with sharp flavours. **Tuna** has a firm, rich red meat. You could almost describe this as the ‘cow of the sea’ and, like steak, it is best seared on the outside and rare in the centre. It can be enjoyed with Mediterranean flavours, spices, chillies, and oriental flavours.

Shellfish



Lobster Native lobsters are from coastal waters around the UK and are often considered the best. Lobster has a similar taste to crab and is usually cooked in boiling salted water.

Crayfish, langoustines, prawns The tail meat is succulent and sweet to taste. Ideal for salads, pasta, or coated in citrus flavours.

Molluscs Bivalves are shellfish with two shells joined by a hinge. Examples include **oysters** and **mussels**. Other shellfish such as gastropods (members of the snail family) have one shell, examples include **limpets** and **whelks**. **Scallops** contain translucent off-white meat wrapped in a bright orange roe or coral, which has a different taste and texture. A superb starter with or without shells, scallop meat has a sweet, delicate flavour, and requires very little cooking. They are best either steamed, pan-fried or grilled. Mussels and oysters can be steamed open and served with lemon and pepper. These species are particularly rich in zinc, which is essential for healthy skin and muscles – and fertility. Small wonder that Casanova reputedly ate 50 oysters a day to keep in tip-top condition!

Protecting our most precious assets

Seafood is one of the world's most valuable natural resources. Throughout the world, fisheries and fishermen are using good practices to secure fish stocks and to help protect the marine environment. It is our responsibility to ensure that the seafood we eat comes from these well-managed and sustainable sources. When you are buying seafood, ask your fishmonger or supermarket

counter where the fish was sourced and look out for 'sustainably sourced' labels. Seafish developed the Responsible Fishing Scheme to raise standards in the catching sector, enabling those in the seafood supply chain to demonstrate their commitment to the responsible sourcing of seafood. The aim is that, over time, accreditation will become a condition of supply for major retailers.

2 a week

The UK Scientific Advisory Committee on Nutrition has recommended that all adults should eat at least two portions of seafood every week, one of which should be oil-rich. This is endorsed by experts at the Food Standards Agency, the British Heart Foundation and the British Nutrition Foundation.

Research over the past few decades has shown that the nutrients and minerals in seafood can make improvements in brain development and reproduction and has highlighted the role of seafood in the functionality of the human body.



enjoy seafood
2 a week

Buying seafood

how to get the best

Seafood is available to buy fresh, frozen or cured. Your fishmonger or supermarket seafood counter should stock a wide selection of each of the groups of seafood. Ask for assistance when selecting. Your supplier will be happy to prepare fresh fish for you in exactly the way you want. If the seafood you want is not available, similar species can always be substituted.

What to look out for

- Whole fresh fish will have eyes that are bright and not sunken. The skin should have a shiny, moist, firm appearance. You should also notice a pleasant sea fresh aroma if the fish is really fresh.
- When buying fillets look out for neat, trim fillets and a white translucent appearance.
- Smoked fish should look glossy with a fresh smoky aroma.
- When selecting shellfish choose shells which are tightly closed and without any gaps or cracks.
- Lobsters and crabs should be heavy for their size.
- When buying frozen seafood check that the fish is frozen solid with no signs of partial thawing. Make sure that packaging is undamaged and there is no sign of freezer burn.

Did you know that the French, Spanish, and Italians love the high quality shellfish that is exported from the UK to their markets every day? Why not join them and try some of the freshest shellfish – such as langoustines, crab and scallops – from around the UK.





Cooking seafood

top tips for delicious fish

SEAFOOD IS EASY TO
PREPARE. JUST FOLLOW
THESE SIMPLE GUIDELINES...

As a rule of thumb when pan frying, griddling, grilling, barbecuing, baking or roasting, allow 4 to 5 minutes per side for a portion of fish 2cm thick and 8 to 10 minutes per side for 3cm thick. Add an extra 2 to 3 minutes per side if the fish is on the bone.

Grilling

One of the most popular methods of cooking seafood is grilling, which seals in the moisture and flavour of the fish. It is healthy, quick and simple. Seafood should be basted during cooking to prevent drying out and cooking time on a medium heat is usually between 8 to 10 minutes. Fish should be placed skin-side up to protect the flesh from the heat. Small, whole fish or thin pieces of fish can be cooked without turning but do score whole fish at the thickest part to enable the heat of the grill to penetrate. Small cubes of fish on skewers and thicker pieces of fish should be turned during grilling.

Top fish for grilling

Halibut steaks, skin-on fillets such as sea bass. Small whole fish such as small mackerel, herring and sardines.

Poaching

Poaching can be done on the hob or in the oven and keeps the fish moist and tender. Not all species of seafood are suitable for poaching. For those that are, poaching involves cooking the seafood in, typically, milk, stock, wine, water or cider (milk works best for white or smoked fish). All or some of this liquid is usually used to make a sauce. To cook the seafood the liquid should always be just below boiling point. Poaching will usually take from about 5 minutes for cubes of fish to 10-15 minutes for thicker pieces.

Top fish for poaching

Whitefish, for example cod fillets, turbot steaks and halibut. Whole fish such as sole, sea bass and smoked cod and haddock.

Baking

Two simple ways of baking seafood are either place in an oven-proof dish with seasoning and herbs, lemon juice and/or vegetables, then add stock, wine or milk, and bake in the centre of the oven. Alternatively add herbs and a few tablespoons of oil to the seafood before enclosing in kitchen foil.

Fish doesn't benefit from high oven temperatures. Small whole fish, fillets, steaks or cutlets can be baked for about 15-20 minutes depending on the thickness of the fish at 200°C/400°F/Gas mark 6. Large whole fish should be baked at 180°C/350°F/Gas mark 4 for about 30-40 minutes (refer to manufacturer's instructions if using fan oven). Delicate whitefish should be coated with oil or butter before baking.

Top fish for baking

All fish can be baked except shellfish. For baking in foil, whitefish and shellfish cook well.

Steam

Moisture is sealed in and vitamins are not lost through the water. This involves cooking the seafood by the heat of the steam between two plates over a large pan of boiling water or in a steamer. Because no liquid is required the seafood retains much of its original flavour and tenderness. Just add seasoning and a little lemon juice and steam for 5-10 minutes for thin fish fillets or 15-20 minutes for thicker pieces of fish or whole fish.

Top fish for steaming

All whitefish particularly sole, sea bass and plaice sea bass and smoked cod and haddock.

Shallow frying white flatfish

It is important to remember to coat the fish thoroughly in batter or breadcrumbs to protect the flesh and stop the fish from absorbing too much fat. Use seasoned flour and a small amount of oil for frying – 2-3 tablespoons should be fine. Shallow fry for about 4-5 minutes, turning once.

Whitefish is fully cooked when it loses its slightly translucent appearance and turns white or opaque in colour. A simple test is to see if a fork or skewer passes easily into the flesh.

Top fish for shallow frying

All white flatfish such as halibut or plaice.

Deep frying white roundfish

Remember to coat the fish thoroughly in batter or breadcrumbs to protect the flesh and stop the fish from absorbing too much fat. Batter protects the fish and locks in the flavour and moisture, breadcrumbs provide a crunchy texture but aren't as protective of the flesh. Don't deep fry oily fish as it won't have the same effect. Dust the fish with seasoned flour or with flour, egg, breadcrumbs, oatmeal or batter. Heat the oil to 180°C/350°F. Cook for approximately 4-6 minutes until it is golden brown and then drain on absorbent kitchen paper before serving.

Top fish for deep frying

All whitefish fillets, particularly cod and haddock. Prawns.

Microwave

The microwave is excellent for cooking seafood. Always remember to cover the seafood with a lid or microwaveable food wrap. Season after cooking and add less liquid than for other methods of cooking. Cooking time varies according to thickness and quantity but as a rule of thumb 450g (1lb) of fish fillets would cook in about 4-5 minutes plus 2-3 minutes standing time.

Time based on 800 Watt microwave (refer to manufacturer's instructions). Place seafood in a suitable container, add 2 x 15ml spoons (2 tablespoons) liquid. Cover and cook for 2-3 mins. Standing time 2-3 minutes after cooking.

Top fish for microwaving

All whitefish and smoked fish.

Barbecuing

Barbecuing adds a delicious smoky flavour. Oil-rich fish, on the bone, can cope with fierce heat best. Most seafood is naturally moist so needs little basting, but for extra flavour on the barbecue it can be left to marinate for around half an hour before cooking. If barbecuing a whole fish, slits or slashes at the thickest part will make cooking faster and more even. Cooking fish in foil parcels will give quick, moist results. Barbecue cooking times are the same for grilling. Make sure the BBQ has glowing red coals, is flame free and is under a thin layer of ash, this will ensure the fish doesn't cook too quickly.

Top fish for barbecuing

Firm fish such as monkfish and tuna. Whole fish, for example mackerel, herring and sardines. Prawns.

A close-up photograph of several skewers of grilled seafood. The skewers are loaded with chunks of salmon, red and yellow bell peppers, and onions. The food is being cooked on a grill, with visible flames and char marks on the ingredients. The background is slightly blurred, focusing attention on the skewers in the foreground.

Handy tips for cooking seafood

- When cooking seafood in the microwave arrange the thickest parts of the fish towards the edge of the dish and fold the tail pieces underneath to ensure even cooking.
- If using metal skewers for kebabs make sure they are flat, so that when you turn them over the ingredients don't twist around.
- Start and finish seafood kebabs with something firm, like an onion, to help the other ingredients stay in place.
- Make full use of the wide variety of ready prepared sauces on sale. Don't be put off by the fact that the sauce may recommend using with chicken; many sauces taste just as delicious when cooked with seafood.
- Boil in the bag seafood with parsley or mushroom sauce makes a tasty filling for a jacket potato. Add grated cheese for an extra flavour boost.
- For an impressive yet fantastically quick 'en crouete' seafood recipe, place a fillet of fish in a rectangle of puff pastry. Top the fish with garlic and herb soft cheese. Close the pastry parcel and bake.
- Flat whitefish are quick and easy to cook. Spread fillets with chutney, marmalade or apple sauce and roll up and cook for the simplest, yet most delicious taste experience.

About Seafish

Seafish, the authority on seafood, was founded in 1981 by an act of parliament and supports the seafood industry for a sustainable, profitable future. Our services range from research and development, economic consulting, market research and training and accreditation through to account management and legislative advice for the seafood industry.

Visit our website at www.seafish.org/2aweek for more information or



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