



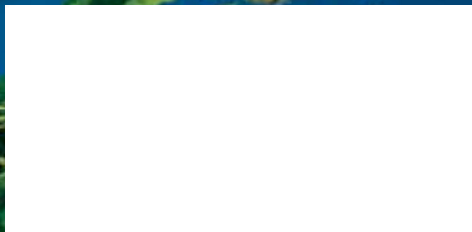
Aquarium problem solver

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If you follow the advice given by your aquatics outlet, and in our information brochures, it is unlikely that you will have any difficulty with your aquarium. However, in case you need additional help, this brochure tells you how to solve some common problems.

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Water clarity

Problems with water clarity are usually simple to resolve, and normally fall under one of the following:

Cloudy / milky water

This has two possible causes:

1 Failure to clean new substrate

Gravel, sand, and other aquarium substrates contain a lot of dust, which should be cleaned off before use. If the water goes cloudy as soon as it's filled, this is the most likely cause. The colour of the water can be anything from a slight cloudiness to a dirty brown, depending on the type of substrate used.

Although your filter should clear the water over time, it is preferable to remove the substrate and clean it properly, to avoid re-occurrence of the problem.

The only types of substrates that do not need cleaning are specialist planting ones, such as **TetraPlant CompleteSubstrate**.

2 Bacterial bloom

In new aquariums, it is not uncommon to experience a temporary cloudiness of the water caused by bacteria. Because new aquariums do not have an established population of micro-organisms in the gravel and filter, dissolved organic material accumulates in the water and promotes the rapid growth of bacteria.

As the aquarium matures, this should settle down and clear. It is not directly harmful to fish, however it could indicate that too many fish have been added at once. It is therefore important to test the water for ammonia and nitrite, to make sure it is healthy.



If the cloudiness is very bad, the bacteria can be thinned out by performing a partial water change, using tap water conditioned with **Tetra AquaSafe**. Adding **Tetra SafeStart** to new aquariums will help establish the filter more rapidly.

Dirty / brown water

Unless this is caused by unwashed substrate (see above), brown water is normally caused by solid waste becoming suspended in the water.

Solid waste is normally trapped in the filter or in

the substrate. An excessive amount in the substrate can be re-suspended by the activity of the fish, and blocked filters will not trap particles as effectively. Therefore, to resolve brown water, you need to clean the substrate with a **TetraTec GC gravel cleaner**, and ensure the filter is free from debris (by washing it according to the instructions).

If you find that the gravel or filter is becoming clogged rapidly, leading to problems with dirty water, you should check the following:



1 Are you using a good quality food, according to the instructions?

Over-feeding, especially with a poor quality food, will put excessive solid waste into the aquarium. Offer a good quality food, such as **TetraMin** or **Tetra Goldfish**, 2-3 times a day, only as much as the fish can consume within a couple of minutes.

2 Is your aquarium over-stocked?

Recommended stocking levels are 1 cm of fish per litre for tropical fish, and 0.5 – 1 cm per litre for goldfish. If your aquarium does have too many fish, you may need to upgrade to a larger one.

3 Is your filter big enough for the aquarium?

Check the instructions to ensure it is large enough to cope with the volume of water. If not, consider upgrading it.

Yellow water

Over time, organic waste breaks down releasing substances into the water that can cause it to go yellow. Such water is still transparent, but has a definite yellow / brown taint to it. Aquariums containing bogwood can be particularly prone to this. If this happens often, make sure there is not an excess of debris in the substrate. Good aquarium husbandry, including keeping



the substrate clean with a **TetraTec GC gravel cleaner**, can reduce the rate at which these substances accumulate.

For complete prevention of yellow water, use activated carbon in the filter. This removes the substances that cause the colouration, helping to keep water crystal clear. All **Tetra** filters contain activated carbon, or have the option of including it. Alternatively, you can add **TetraTec Carbon** media to an existing external filter.



Green Water

Green water is caused by suspended algae, and should be dealt with accordingly. See the section on Algae in this brochure.



Algae

Algae are simple plants that occur naturally in aquariums. If they grow to excess, they can spoil its appearance by covering the glass, plants, and ornaments, and in some cases causing the water to turn green.

Algae come in various shapes and colours, the type depending on the chemical and physical properties of the aquarium. Generally they are green or brown, and may form smooth sheets or stringy growths. You cannot prevent algae entering the aquarium, but you can manage its growth and prevent it becoming a problem.

Tips for controlling algae

- **Control the amount of light within the aquarium.** This means keeping it out of natural sunlight, and leaving the light on for no more than 10-12 hours a day. You should also replace light bulbs according to the instructions, as old tubes emit the wrong quality of light and can encourage brown algae to grow.



- **Remove organic matter from the substrate.** Allowing the substrate to get very dirty will cause nutrient levels to rise, fuelling algae growth. You should keep the substrate reasonably clean by using a **TetraTec GC gravel cleaner**, and clean the filter as necessary.
- **Use a good quality food.** Foods that are efficiently utilised, such as **TetraMin** and **Tetra Goldfish**, result in less nutrient build-up. This helps to control algae growth.
- **Add live plants to the aquarium as a natural algae control.** Fast-growing species are best, and their growth can be encouraged with **TetraPlant PlantaMin**.

You can get an indication of nutrient levels by testing the water for nitrate with a **TetraTest Nitrate kit**, or **TetraTest 6 in 1 test strips**.



- **Use Tetra EasyBalance.** This actively reduces two important algae nutrients – phosphate and nitrate, thereby helping to control its growth. **Tetra NitrateMinus** can also be used specifically for nitrate control.
- **Keep a selection of algae-eating fish.** In tropical aquariums it is possible to control algae using certain fish. Bristlenose catfish (*Ancistrus*), Otocinclus catfish, and Siamese algae eaters (*Crossocheilus siamensis*) are all

suitable. Bristlenose catfish may eat the plants as well, so seek advice before deciding on which fish to use. A mixture is often best, as some fish only eat certain types of algae.



Sick fish



Fish kept in a healthy environment rarely get ill, and if they do it's important to identify any underlying causes. If the environment is not right they will be stressed, causing their immune system to weaken, leaving them open to infection.

Signs of illness

A change in the behaviour of the fish, such as loss of appetite or sluggishness, is often the first sign that something is wrong. In some cases, specific symptoms may develop that can help identify the disease, but this is not always the case. Just like humans and other animals, infections may be caused by a range of fungi, parasites, bacteria, and viruses. The more common ones can usually be treated with off-the-shelf remedies, provided any problems with the environment are corrected.

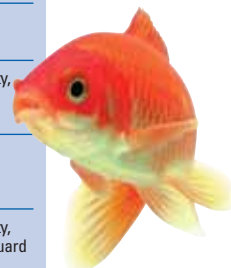
The following table offers a guide to some typical symptoms and diseases they are likely to be associated with. Use this to try to identify the problem and the correct treatment. Where a specific disease cannot be identified, use of a general remedy such as **TetraMeda Lifeguard** is recommended. For more detailed advice, consult your aquatics outlet.

Curing sick fish

To begin with, try to identify any underlying environmental problems:

- Test the water to ensure it is healthy. You can do this with **TetraTest kits**, and your aquatics outlet may be able to test a water sample for you. At a minimum, you should check for ammonia, nitrite, and pH. If no problems are

Symptoms	Likely cause	Treatment
Small white spots covering skin and fins	White spot	TetraMeda Lifeguard
Peppering of yellow – gold "dust"	Velvet disease	TetraMeda ContraSpot
Fish gasping at the surface	Water quality, Gill disease	Check water quality, TetraMeda Lifeguard
Thickened mucus, "milky" or slightly grey appearance to skin	Water quality, Skin slime disease	Check water, TetraMeda ContraSpot
Mucus trailing from gills	Water quality, Gill disease	Check water quality, TetraMeda Lifeguard
Fishes are "flicking" against things	Skin parasites, water quality	TetraMeda ContraSpot, check water
Cloudy eyes	Water quality, physical damage, bacterial infection	Check water, Tetra General Tonic
Red streaks in fins and on body	Bacteria, water quality	Check water, Tetra General Tonic
Ulcers	Bacteria	Check water, Tetra General Tonic
Cotton wool like growths on body	Fungus	Check water, Tetra FungiStop
Darkening in colour/ lethargy	Water quality, bacteria, possible parasites	Check water quality, TetraMeda Lifeguard
Rapid gill movements	Water quality, Gill disease	Check water, TetraMeda Lifeguard
Swollen body and/or raised scales	Bacteria (Dropsy)	TetraMeda General Tonic
Protruding eyes	Physical damage, bacteria	TetraMeda General Tonic
Eroded mouth and head with cotton wool like growths	Cotton wool disease (bacteria)	Check water, TetraMeda Lifeguard





identified, you should also check levels of nitrate, oxygen, GH, and KH. Any problems need to be resolved before treatment is likely to work. More information on water quality can be found in our '**Caring for your Tropical Aquarium**' brochure.

- **Check the temperature**, as water that is too hot or cold can trigger disease. This is especially important for tropical fish.
- **Clean the substrate & equipment**, as accumulated organic matter can harbour disease-causing micro-organisms.
- **Check the fish are compatible**, as aggression can weaken fish leading to disease. In addition, shoaling fish must be kept in sufficient numbers to prevent stress.



All Tetra foods contain patented **ActiveFormula**, which helps fish maintain a healthy immune system

- **Ensure you are feeding a good quality food**, as this will provide everything needed for a healthy immune system.
- **Ensure the aquarium has plenty of hiding places**. If they can't hide away, many fish will become stressed and sick.

Treating the water

Once you have identified any possible environmental problems, and taken steps to resolve them, you can then treat the aquarium. Use the disease identification table to find the most appropriate remedy, and ask your aquatics outlet for further help if required.

Treatment tips:

- Before adding the treatment, perform a 25% water change using tap water conditioned with **Tetra AquaSafe**, and clean the substrate.
- Perform a further 25% water change each time you re-dose the aquarium.

- Ensure there is plenty of aeration during treatment – if the fish seem to gasp at the surface, increase oxygen levels with a **TetraTec APS air-pump**.
- Read the instructions carefully, and only add the correct amount of treatment to the aquarium. **TetraMedica** medicines are safe for all fish, but some other brands may carry special warnings for certain species.
- Remove activated carbon, ion-exchange resins, and other chemical filtration media during treatment. These make the treatment less effective.
- Add **Tetra AquaSafe** to the water during treatment, to support the fishes' protective mucus layer.
- Watch the fish carefully, and seek help if they appear to react badly to treatment. A partial water change can always be used to dilute out the active ingredients if necessary.



Three very common causes of health problems are washing the filter media in tap water, adding too many fish to the aquarium at once, and failing to properly condition tap water. All can cause water quality problems or directly harm fish, leading to disease:

- Unless the instructions say otherwise, only clean filter media in aquarium water.
- When adding new fish, follow the advice of your aquatics outlet, and use **Tetra SafeStart** to prevent water quality problems.
- When adding tap water to the aquarium, always use **Tetra AquaSafe** or **Tetra Goldfish AquaSafe**.



Sick plants

Just like fish, if plants aren't given an appropriate environment they will not remain healthy for long. Plants not given the right conditions may show signs of poor growth, yellowing leaves, or simply die off. Common causes of poor health include:

- **Nutrient deficiency.** Usually caused by low levels of carbon dioxide or trace elements. This can be remedied by using plant fertilisers such as **TetraPlant PlantaMin**, and carbon dioxide units such as the **TetraPlant CO₂ Optimat**.
- **Wrong type of fertiliser.** Some plants are not good at absorbing trace elements from the water. These species, which include Amazon Swords and Cryptocorynes, require fertilisation around their roots.

TetraPlant Crypto tablets and **CompleteSubstrate** are ideal for these plants.

- **Poor lighting.** Plants require the correct quality and quantity of light for health and growth, and some species are more demanding than others. Make sure the light tube in your aquarium is designed for plants, and that you replace it once a year. Old tubes emit less light, even though they appear to be working.
- **Unsuitable species.** Some plants may have particular water chemistry or light requirements, which cannot be met in your aquarium. Avoid these, and seek advice as to those that are most suitable.

Some may also not be true aquatic species, and these usually only last for a few months at most. Again, avoid these if you want long-term success.

- **Plant-eating fish.** Some fish will eat plants, and these must either be avoided, or you must choose hardier species of plants. Your aquatics outlet can advise you further.
- **Algae.** If the conditions are right, fast-growing algae can smother plants, especially those that grow more slowly. See the section on Algae in this brochure for more advice.

For more information on the correct care of aquarium plants, see our '**Planting your Aquarium**' brochure.

