

Old Tank Syndrome

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Perhaps you walked into your living room one day, looked at your aquarium, and realized you haven't been giving it the attention and maintenance you used to when it was new.

Everything looks clear and healthy from the outside, so you've relaxed your water-changing and [water-testing](#) schedules, trusting your [filtration](#) to maintain good water quality. What you can't see from the outside, however, is the slow and steady decline in water quality. You may be on your way to Old Tank Syndrome.

What is Old Tank Syndrome?

The term "Old Tank Syndrome" is commonly used to refer to a series of related water quality issues, generally indicated by high nitrate levels. In closed aquarium systems, impurities such as nitrate increase over time and cannot be efficiently removed through conventional filtration alone. Persistently high nitrate levels compromise the health of your fish as well as your entire aquarium system.

Effects of extreme nitrate levels

Though nitrate is not as toxic as ammonia or nitrite, high nitrate levels place chronic stress on fish. They become more susceptible to disease and demonstrate poor growth and color development. Extremely high nitrate levels threaten your entire aquarium system with a potential decline in pH as "old," nitrate-rich water loses its buffering capacity and becomes susceptible to the acidifying effects of decomposing organic waste materials. Eventually a pH crash may occur, which can be very damaging, if not lethal to fish.



How to prevent Old Tank Syndrome

Many aquarists find out they have Old Tank Syndrome only when they try to introduce new fish to their aquarium. Existing fish may have been able to adjust slowly to the declining water quality but, to new fish, these poor conditions are a shock to the system, often causing them to succumb to weakness and disease.

If you think your freshwater aquarium demonstrates signs of Old Tank Syndrome, test your water right away. You can easily prevent nitrate buildup through regular water changes. If nitrate levels are high (above 60 ppm), perform a series of small water changes (no more than 25% per day) until it is lowered to acceptable levels (< 50 ppm). These water changes will also replenish lost carbonate ions (buffers) to help stabilize pH and create a healthy living environment. Be sure to use a [bacterial additive](#), like [Stress Zyme](#) to maintain your population of beneficial bacteria.

Rather than combating the effects of Old Tank Syndrome, practice proper aquarium husbandry and perform [routine maintenance](#). Insist upon regular aquarium maintenance, especially regular water changes and [water testing](#).

<p>Question: How do I lower nitrate levels in my aquarium?</p>	<p>Answer: Nitrate levels can be lowered in many ways, including the use of nitrate reducing chemical filter media or biological media that house anaerobic bacteria, which convert nitrate into harmless nitrogen gas. However, the easiest and quickest way to reduce and maintain low nitrate levels is through routine filter maintenance and regular water changes.</p>
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ESSENTIALS

- [Tetra EasyStrips™ Aquarium Test Strips](#) help you check water conditions quickly.
- [Drs. Foster & Smith Live Nitrifying Bacteria](#) quickly establish biological filtration in newly set-up aquariums.