

AquariumIndustries

New Tank Syndrome

The Nitrogen Cycle

Ammonia is the main waste product from fish or uneaten food that will 'poison' fish. Ammonia will damage gills and is a 'neurotoxin' affecting the brain. Special bacteria called Nitrifying bacteria are able to manage this waste via a process called Nitrification or the Nitrogen Cycle. It is essential to establish this process in an aquarium to prevent ammonia building up to toxic levels.



In a newly established aquarium, it may take up to a month to establish this cycle and care must be taken during this time to prevent toxic levels of Ammonia and Nitrite building up.



Managing ammonia level to prevent deaths during this time can be achieved by doing a number of things:

- Add gravel, filter material or water from an established aquarium to introduce nitrifying bacteria or Add commercial products such as Cycle and other nitrifying bacteria products to help increase the population of bacteria.
- Live plants are capable of taking up ammonia directly and help stabilise the water quality.
- Stock just a few hardy fish to start with, generally around 10% of what the tank is capable of carrying. Gradually build up the numbers over 4 to 6 weeks.
- Feed minimal amounts of food, the more food added the more ammonia produced. Only feed every second day for first few weeks then increase feeding to normal levels.
- Test for ammonia and nitrite levels, if levels increase do water changes – smaller regular water changes will be better than large water changes.
- Keep pH slightly acid this will 'detoxify' ammonia.

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