

# Good Bacteria v. Ammonia

**What is “good” bacteria and how does it help?** In simplest terms, the key to a successful aquarium or pond is the balance between “good” bacteria and organic waste (ammonia). In a new aquarium it takes 4-6 weeks for your “good” bacteria to grow and become established. As your aquarium ages this good bacteria will help keep the ammonia at a very low level. This is why most problems customers experience occur when their aquariums are new. In a stable aquarium the good bacteria will consume the ammonia and makes it less toxic.

**What is Ammonia?** Ammonia is a toxic substance that is one of the major causes of fish illness and death. Ammonia levels should always be 0.5 parts per million or less.

**What causes Ammonia?** Ammonia is produced by fish waste (adding too many fish too quickly), uneaten fish food, decaying dead fish or ammonia based cleaning products that come in contact with the aquarium water. Ammonia is common in new aquariums and should be monitored closely the first 6 weeks a tank is set up.

**Why is Ammonia a problem?** Ammonia acts as a “stressor” to fish. When a fish’s immune system becomes “stressed”, parasites and bacterial infections are able to attack the fish. In high levels ammonia will disrupt the breathing of fish and cause death.

**How do I recognize Ammonia Problems?** There are many symptoms of possible ammonia problems: loss of appetite, sluggishness, clamped fins, rapid breathing, redness near the gills, illness or unexplained deaths. If you suspect you have an ammonia problem have your water tested within 24 hours if you can (we will do this for you). If that is not possible do a 1/3 water change and have your water tested as soon as possible.

**How do I test for Ammonia?** There are many different types of ammonia test kits sold today. Unfortunately most inexpensive test kits are unreliable and shouldn’t be used. Either buy a “professional” kit at our store or have your water tested here.

**What do I do if I have Ammonia?** If your ammonia level is between 0.25 -0.5 ppm do one 1/3 water change. Wait 2-3 days and have your water retested. If your ammonia is above 1.0 ppm. do 1/3-water changes waiting 48 hours between changes and have the water tested. Reduce feeding during this time.

**How does pH affect ammonia?** If your pH is above 7.0, your ammonia will be 2-3 times more harmful than if your pH was under 7.0. Since it is difficult to keep your pH under 7.0, we encourage our customers to be aware of this harmful combination and always take steps to keep your ammonia low.

**How do I prevent Ammonia problems?**

1. Never overfeed! Uneaten food is the number one cause of Ammonia. Feed every other day if the tank is new.
2. Have proper filtration.
3. Regular water changes.

1/3 water change once a month with a “gravel siphon”.

**Note!** The smaller the tank the quicker ammonia accumulates.  
The younger the tank the less “good” bacteria you have.