

# Biological Filtration: Is Your Filter at Peak Performance?

Drs. Foster & Smith Educational Staff



## IS YOUR BIOLOGICAL FILTRATION AT **PEAK** performance?

Biological filtration drives every successful home aquarium. Established colonies of beneficial bacteria are the workhorses for efficient biological filtration. In mature systems, these colonies are relatively hardy; however, there are certain factors that affect bacterial population including:

**CHLORINE & CHLORAMINE** These common tap water disinfectants can severely compromise beneficial bacterial colonies. Use our [Chlorine Neutralizer](#) with each top off or water change to make tap water safe for aquarium use.

What conditions do beneficial bacteria need for proper growth?

A: Your aquarium's beneficial bacteria depend on a constant food source of ammonia (from fish or food waste) or nitrite (from the nitrogen cycle), a rich supply of oxygen, and water temperatures above 55°F.

**MEDICATIONS** Use with care as many broad-spectrum [fish medications](#) can also kill good bacteria while they target bacteria-based diseases.

**OXYGEN LEVEL** Beneficial, nitrifying bacteria are aerobic and require oxygen to process nitrogen compounds. To ensure effective biological filtration, use Bubble Disks to increase oxygen levels with an aesthetic flair.

**OVER CLEANING** Aggressive gravel cleaning can physically reduce bacterial populations. Limit the loss of beneficial bacteria with the careful use of the [Aqueon Aquarium Water Changer](#). Clean only a portion of aquarium gravel during routine water changes.

**FOOD/FISH LEVELS** [Over-feeding fish](#) or adding too many fish can tax existing bacterial populations. A sudden increase in organic waste in the water can trigger a brief ammonia spike or a "mini cycle" as beneficial bacteria process excess waste.

To help ensure a healthy colony of beneficial bacteria, use our [Live Nitrifying Bacteria](#). It is great for use with new setups, existing aquariums, after cleaning, water changes, after medication, or any time you need to fortify biological filtration.