Biological Filtration: Is Your Filter at Peak Performance?

Drs. Foster & Smith Educational Staff

intermediate

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.

> **Q:** 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.

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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.

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