Aeration: The Importance of Proper Aeration

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basic

air

PUMPS

VITAL FOR PROPER AERATION AND HEALTHY AQUARIUMS

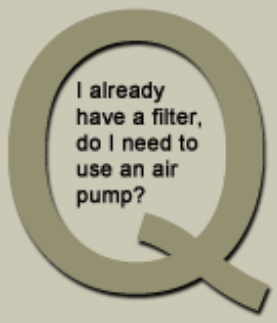
Some hobbyists often consider air pumps as optional or nonessential aquarium equipment. However, air pumps play a fundamental role in the health and welfare of aquarium inhabitants. Air pumps promote proper gas exchange by producing air bubbles that agitate the water surface. Fresh, oxygen-rich air enters the water while harmful gasses are expelled.

IS THERE ENOUGH OXYGEN IN YOUR AQUARIUM?

While all hobbyists are aware that fish need oxygen to survive, many are unaware how much oxygen is available in their aquarium. To complicate the matter, the amount of available oxygen, or dissolved oxygen content, varies under different aquarium conditions. Water temperature, stocking levels, and organic waste materials affect dissolved oxygen content and can contribute to harmful oxygen-deficient conditions.

FACTORS THAT AFFECT OXYGEN CONTENT

- **WATER TEMPERATURE** - Oxygen content in water decreases as water temperature increases. Warmer water is less able to "hold onto" oxygen so there is a greater need for proper aeration during summer when water temperature can unexpectedly climb.
- **STOCKING LEVEL** - The more fish you have in your aquarium, the greater the demand for oxygen. Air pumps help maintain densely populated aquariums, aquariums with large fish, or aquariums housing species that require higher water temperatures by providing a steady supply of oxygen.
- **ORGANIC WASTE** - Oxygen plays a vital role in the natural breakdown of waste materials. To maintain efficient biological filtration, an aquarium with more organic waste materials will tend to require more oxygen than a "cleaner" one.



A: Filtration devices help maintain good water movement, and contribute to aquarium aeration.

REPLENISH OXYGEN CONTENT WITH AIR PUMPS

Use an oxygen test kit to accurately determine how much oxygen is present in your aquarium. If oxygen content is low, use an air pump to provide a steady supply of oxygen. Even if the test results are fine, invest in an air pump for peace of mind knowing you have a healthy, oxygen-rich aquarium environment.

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However, they are not designed specifically to aerate aquarium water.

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