

TOXIC EFFECTS OF AMMONIA AND NITRATE ON
AXOLOTLS IN FILTERED AQUARIUMS

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Both undergravel and dacron wool type filters act as an aerobic bacterial bed which convert ammonia and nitrate to nitrite which can be utilized by plants and algae. This system works well unless the bacteria are disturbed by the cleaning of filters or tanks or by overloading with fecal material. Once the system is disrupted, the axolotls may show inflammation or cloudiness of the skin and deterioration of the gills. If these symptoms appear the nitrate concentration can be checked with a test kit, priced reasonably at pet shops.

The problem can be eliminated or reduced by the following methods:

1. When first setting up an aquarium with either type filter, reduce the amount of food or number of animals until bacteria can populate filter bed. This should also be done when changing dacron wool type filters.
2. With undergravel filters use one and one-half inches or more of medium sand on top of filter plate, do not have air risers working too fast, and disturb the sand as little as possible.
3. With dacron wool filters use two in each aquarium and clean only one at a time or reduce feeding for a couple days if only one is used.
4. If you have recently disrupted the filters and the animals show the symptoms of high nitrate or ammonia concentration, replace 1/2 of the water.

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