



## Axolotl

**Scientific Name:** *Ambystoma mexicanum*

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### **Background:**

Axolotl are only native to Lake Xochimilco in Central Mexico. Being a deep, spring fed lake the water temperature rarely goes above 68 degrees and is typically crystal clear. This species is bottom dwelling, living among the tree roots and smooth rock formations. They are at the top of the food chain in this habitat. They use their “vacuum-like” mouth to suck in unsuspecting prey such as small fish, crustaceans, insect larvae, and worms. In captivity, this species can live up to 15 years with proper husbandry. Axolotl are unusual among amphibians in that they reach adulthood without undergoing the metamorphosis that typifies salamander maturation. Instead of developing lungs and taking to the land, adults remain aquatic and retain their external gills.

**Enclosure:** The typical enclosure for a single juvenile Axolotl is a 10-gallon glass aquarium. For a single adult, a 30-gallon glass aquarium is generally sufficient. One of the most important features of axolotl husbandry is that they prefer cool water. Water temperatures should be less than 70F. These temperatures can be hard to reach in Florida, so you may wish to consider getting a water chiller system. They can be expensive, but are a very effective way at getting water temps down to lower than room temperature.

Axolotls are stressed by poor water conditions so choose your filter carefully. First off, it is always recommended to buy a filter that can accommodate a larger tank size than what you have. Better to over-filter than under filter.

Hang-on-the-back filters can be acceptable choices, but be careful of the flow rate. Axolotls prefer a minimal slow-water current. Strong water currents will cause your axolotl stress. Canister filters are a popular option, especially if you have a larger sized tank. Brand names that have been recommended to us include Eheim, Magnum, and Aqueon.

On initial set-up, we recommend running the filters and tank for a couple of weeks prior to introducing the Axolotl to the enclosure.

**Substrate:** We do not recommend any substrate for this species. Since they are bottom feeders, many substrates can act as a foreign body if ingested. If you really want a decoration for the bottom of the tank, consider using large river-smoothed stones. Smooth stone surfaces are

easy to scrub clean each time you do a water change on your tank and are because of their size, are too large to ingest.

**Water Quality:** Measuring and monitoring your Axolotl's water quality is tremendously important. Water quality test kits can be purchased at your local aquarium stores. Axolotl's produce a significant amount of waste which means that water quality (i.e. ammonia levels) need to be monitored. Below is a chart with the normal ranges for Axolotl water quality.

Parameter	Range	Additional Info:
Water Temperature	60-70 F	Preferably measured with a digital thermometer for greater precision.
Water pH	7.4-7.6 Ideal	The higher the pH, the more concern that arises for ammonia toxicity.
Ammonia	0 ppm	Waste product of Axolotl
Nitrite	0 ppm	
Nitrate	<10 mg/mL	
KH		
GH		
Oxygen Saturation	70-100%	
Salinity	0 g/L	

**Water Changes:** Given that Axolotl's produce a significant amount of waste, we recommend a 30-50% water change once a week. Tap water is acceptable, but should be treated with a fish safe water conditioner to remove chlorine and chloramines.

**Diet:** Axolotl's should be fed a high quality pellet diet. Brands that are recommended include Hikari and Tetra. This food is ideally replaced once every 6 months. For adults, they can be offered a small earthworm once a week. We do NOT recommend feeding live bloodworms.

Many of the illnesses that occur with our axolotls in captivity are due to poor water quality or a poor diet. If you are having an issue with your axolotl, it is likely that we will ask you about what conditions you are keeping your pet in. You may want to have already collected the basic water quality parameters on your tank before coming in for an appointment. Keeping such an exotic pet can be very rewarding! But it also has certain challenges that must be planned for and overcome. Our advice is to invest in the best setup you can afford. The better quality environment you have, the fewer illnesses and stress your axolotl will experience. The healthier the axolotl, the more enjoyable experience you will have keeping them.