

AXOLOTL CARE

Axolotls belong to the amphibian group and originate from the high altitude freshwater lakes of Mexico. They are now on the CITES endangered species list and the incredible regenerative abilities and large robust embryos of the axolotl have led to its study in laboratories.

The axolotl exhibits neotony in which normal metamorphosis does not occur and instead the larval form of the animal is maintained, this means that both the gills and fins are retained and other characteristics such as protruding eyes do not develop. Whilst the axolotl has rudimentary lungs, breathing occurs via the gills and to a lesser extent, the skin. Despite this, the axolotl grows larger than most larval forms of salamander and reaches sexual maturity. In rare cases axolotls can spontaneously metamorphosise!

BIOLOGY

- Axolotls have small, cone like teeth which they use to manoeuvre food into the mouth. They are poikilothermic and have a three chambered heart.
- Axolotls begin as a tiny (2mm diameter) egg containing an embryo and surrounded by jelly. These hatch into the larval form and gradually develop limbs over the following weeks. Axolotls tend to be transparent for the first few weeks of life but can take on a wide variety of colours later in life. Axolotls reach their adult size by 18-24 months and this can range but is on average 25-30cm.
- Axolotls can be sexed on their appearance, with the males being more elongated and less rounded than females. Male axolotls also have a more swollen cloaca than females once sexually mature. The availability of sperm within males goes through cycles throughout the year and is therefore not always present.

ACCOMMODATION

- Axolotls are best housed alone and any tank sharing is at some risk. Young axolotls may be housed together provided there is plenty of space and whilst cannibalism is greatly reduced in adult axolotls, those of different sizes should not be left together.
- Axolotls should be housed in an aquarium as they are aquatic and consideration of an adult size of up to 35cm should be taken into consideration when choosing the size. Whilst filters are not essential if the water is changed frequently, they are strongly advised in order to keep the levels of toxic ammonia low. It is essential that filters do not cause strong water flow as this is a severe cause of stress in axolotls, it is also not advised to keep plants in the tank as they are rapidly destroyed by the axolotls. Over filtration is also a cause of stress and must therefore be controlled. Care should be taken to keep the tank in a quiet, vibration free area.
- The optimum environmental temperature for axolotls is 16-18°C and should never exceed 24°C.
- The ideal water pH is 7.4-7.6. Chlorine, as found in tap water, is harmful to axolotls and so either a de-chlorinator must be used, or the water must be left to stand for 24 hours before adding it to the tank. If you live in an area in which chloramines are added to the water then a de-chlorinator is essential. 10-20% of the water should be changed every week although this can be altered depending on the filter system of the tank.
- Various substrates can be used for the bottom of the tank, however sand is the best choice as axolotls can occasionally eat gravel which can be fatal. Hides such as caves and pipes are recommended to allow axolotls to hide.
- Axolotls do not require strict lighting and are sensitive to sudden changes in lighting so tanks are often left unlit. This is another reason for not choosing live plants to decorate the tank. Axolotls are highly sensitive to excessive UV-b radiation and therefore these bulbs are not advised.
- After setting up a tank for axolotls, it should be left empty for 2 weeks before they are added.

WHAT TO FEED

- Axolotls are carnivores and will eat live or dead prey although the movement of live prey helps to stimulate them to feed, especially when young. Axolotls can be hand fed to make them more social, especially since the rudimentary teeth of the axolotl means that whilst they may latch on, axolotls cannot actually pierce human skin.
- Water based food should be taken from fish-free water since they can be a source of disease. Adult axolotls can be fed earthworms, bloodworms, blackworms, salmon pellets and brine shrimp. Daphnia are good for larval axolotls. Juveniles can eat whiteworms and grindal worms although these are fatty and oily so should not become a permanent diet.
- Feed should be dusted with a calcium supplement (they can be fed in a separate tank to avoid this contaminating the water although this is not essential) and gut loading is advised.

HANDLING

Axolotls should undergo minimal handling since their skin is susceptible to toxins.