

WALNUT CREEK SUPPLY

THE COMPLETE CARE GUIDE

Axolotl

Cold, clean, calm water for the walking fish



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New owner? Go straight to Section 1. It is written so you can set up a safe, correct home and get through the first 48 hours without reading anything else first.

*An axolotl looks like a small, smiling dragon that forgot to leave the water. Feathery red gills fan out from the sides of its head, its wide mouth curves upward in a permanent grin, and it drifts across the bottom of its tank with the unhurried calm of an animal that has nowhere else to be. They are every bit as charming as they look, and they are also one of the more particular pets you can bring home. An axolotl is a **cold-water animal**, a **low-flow, low-light animal**, and a **water-quality animal** first and everything else second. Get the water right and an axolotl can share your home for **10 to 15 years**. Get it wrong, especially in the heat of summer, and trouble can arrive faster than most new owners expect. This guide walks you through all of it in plain language, from the first 48 hours to the long haul. Read the Quick Start first, and please do not skip the part about cycling the tank before your axolotl arrives. It is the single most important thing in this guide.*

SECTION 1

Quick Start: Your First 48 Hours

1. **Check your local rules before you buy anything.** Axolotls are restricted or banned in some US states and localities. California, Maine and New Jersey ban them, and New Mexico requires a permit. Virginia, which appears on many older lists, has allowed axolotls without a permit since August 1, 2021. Rules change, so confirm with your state wildlife or fish and game agency (and any city or county rules) before you spend a dollar. If you live somewhere they are not allowed, please do not work around it. The animal and you will both be better off.
2. **Cycle the tank first, before the axolotl comes anywhere near it.** Set up the tank, filter and dechlorinated water, then run a **fishless cycle**, which means growing a healthy colony of beneficial bacteria with a source of ammonia rather than with an animal. The **nitrogen cycle** is the natural process where bacteria convert toxic **ammonia** (the main waste an axolotl produces) into **nitrite** (also toxic), and then into **nitrate** (much less harmful, and removed by water changes). A tank is "cycled" when it can turn a dose of ammonia into zero ammonia and zero nitrite within 24 hours. In cool water this takes longer than most guides admit, often **four to eight weeks**. Be patient. A tank that is ready is a tank that keeps your axolotl alive.
3. **Set up cooling now, not in July.** Your target water temperature is **60-68°F (16-20°C)**. Decide how you will keep it there: a cool room, fans blowing across the water surface, or an aquarium chiller. If your home runs warmer than about 72°F anywhere in the year, plan on a chiller or a dependable cool spot before you bring the animal home. **There is no heater in an axolotl tank.**
4. **Place a reliable thermometer and learn to read it every day.** Use a digital thermometer with a probe, or a good glass aquarium thermometer, in the tank where you can see it without moving anything. Check it every single day. Above about 72°F is stressful and **above about 75°F is dangerous.**
5. **Treat the water with a dechlorinator every single time.** Tap water usually contains chlorine or chloramine, which burn an axolotl's gills and skin. A **dechlorinator** is a liquid water conditioner that neutralizes them. Check that your product states that it removes **chloramine**, not just chlorine, because many municipal systems use chloramine, and it does not simply evaporate on its own.
6. **Build the layout for a low-flow, low-light animal.** Install a sponge filter or a baffled filter so the water moves gently. Add dim lighting (or none at all), plenty of shade, a cave or two, and live plants. Check that the lid fits snugly. Axolotls can and do jump.
7. **Confirm your substrate is safe.** Go with **bare bottom, fine sand, or very large smooth stones**. Never use gravel or small pebbles. Anything small enough to be swallowed with a bite of food can cause an **impaction**, which is a blockage in the digestive tract.
8. **Test the water and write the numbers down.** On arrival day you want **ammonia 0, nitrite 0, nitrate under 20 ppm** (ppm means parts per million, the unit test kits use), a pH around 7.4-7.6, and a temperature in range. If any one of those is off, fix it

before the axolotl goes in.

9. **Acclimate gently and then leave your axolotl alone.** Float the sealed transport bag for about 20 to 30 minutes so the temperatures match, then ease a little tank water into the bag over a further 15 to 20 minutes before gently moving the animal across. Keep the room quiet and the lights low. Do not expect a meal on day one. A day or two of hiding is normal.
10. **Offer a first meal on day two or three.** One small earthworm piece or a few sinking pellets dropped near the axolotl's snout is plenty. If it is ignored, remove it within an hour and try again the next day. Settling in takes time.
11. **Wash your hands after every contact with the tank or the water.** Amphibians, like many animals, can carry **Salmonella**, a bacterium that causes stomach illness in people and that the animal itself usually carries without symptoms. Wash for at least 20 seconds with soap, every time, and keep tank equipment out of the kitchen sink.
12. **Find an exotic or amphibian-experienced vet before you need one.** Most cat-and-dog clinics do not treat axolotls. Call around now, ask whether they see amphibians or aquatic exotics, and tape the number somewhere obvious.

First-Time Starter Bundle

What needs to be in the house on day one, and what to look for in each category.

Essentials

- **A properly sized tank with a secure lid** — a 20-gallon long is the minimum for a single adult, and a 40-gallon breeder is the better long-term choice. Look for more floor space than height. The lid should fit tightly with no gaps wide enough for a determined axolotl to push through.
- **A gentle filter** — a sponge filter driven by an air pump is the classic low-flow choice. A hang-on-back or canister filter can also work if it has a baffle, a spray bar, or an added sponge that breaks up the outflow so nothing pushes the axolotl around.
- **A cooling solution** — this may be a clip-on fan, a dedicated aquarium chiller, or a naturally cool room, depending on your climate. Pick it before the axolotl arrives and make sure it can hold the tank under 68°F on your hottest day.
- **A reliable aquarium thermometer** — a digital probe thermometer is easiest to read at a glance. A second thermometer is a smart backup because an inaccurate reading is worse than no reading.
- **A liquid water-test kit** — one that measures ammonia, nitrite, nitrate and pH. Liquid kits are far more dependable than paper test strips for cycling and troubleshooting.
- **A water conditioner that removes chlorine and chloramine** — a dechlorinator you use for every water change and every top-off.
- **A source of ammonia for the fishless cycle** — pure household-grade ammonia with no additives, or a dedicated cycling product made for aquarium use.
- **A bacteria starter or cycling booster** — optional but helpful for kick-starting the cycle, especially in cool water where bacteria grow slowly.
- **A safe substrate or a bare bottom** — fine sand of an aquarium-safe grade, or large smooth stones too big to swallow, or simply nothing at all.
- **At least one cave or hide** — smooth-edged, large enough for the axolotl to turn around in, with an opening at least as wide as its body is long. Ceramic, resin and PVC hides all work if they are free of sharp edges.
- **A siphon or gravel-free water changer** — a simple tube for removing water and waste during weekly changes.
- **A clean bucket reserved for the axolotl** — one that has never held soap, detergent or chemicals.
- **Sinking axolotl or salmon pellets and a supply of earthworms** — see the Diet section for details.
- **Soft feeding tongs or a feeding dish** — for target feeding and for picking up uneaten food.

Ready to set up? Browse the essentials in our collections: Axolotl Supplies & Care and Aquarium Filters, Pumps & Media.

Enrichment

- **Live, low-light plants** — java fern, anubias and hornwort are the standard picks. They tolerate cool water, thrive in dim light, and help soak up nitrate. Java fern and anubias can be tied to wood or rock rather than planted, which works well over bare-bottom and sand.
- **Additional hides at different heights** — a second cave, a half-pipe, or a length of smooth driftwood makes a tank feel like a place with options.
- **Smooth driftwood or large rounded river rock** — checked for sharp edges and rinsed well before use. Quick test: run a damp fingertip or a cotton ball across it. If it catches, leave it out.
- **A floating or tethered shade plant** — floating plants cast gentle shadow across the surface. Use them sparingly so the water surface remains open for gas exchange.
- **A background on the back and sides** — opaque on three sides reduces reflections and gives the tank a calmer feel.
- **A dimmable light or a low-output LED on a timer** — useful if you keep live plants. Cheap fixtures run hot, so look for LED, which keeps the tank cool.
- **A clean, lidded transfer container** — a food-safe tub with a lid, kept just for moving your axolotl during cleaning or a vet visit.
- **An insulated carrier or cooler** — for trips to the vet in summer. It keeps the water temperature steady during transit.

Enrichment, one click away. Shop Aquarium Decorations and Accessories and Aquarium Live Plants & More.

SECTION 2

Meet Your Axolotl

The axolotl (*Ambystoma mexicanum*, pronounced "AX-oh-lot-ul") is a salamander, which makes it an **amphibian**, a cousin of frogs and newts. What sets it apart from nearly every other salamander is that it never grows up, at least not in the usual way. Most salamanders start life in the water with gills, then transform into air-breathing land animals. The axolotl skips that step. This trait is called **neoteny**, which simply means keeping juvenile features into adulthood. An adult axolotl stays fully aquatic, keeps its **external gills** (the feathery branched stalks on either side of the head that pull oxygen from the water), keeps its tail fin, and breeds in this "baby" form. It also has small lungs and will occasionally gulp air at the surface, but the gills and skin do most of the work.

Wild axolotls come from **Lake Xochimilco** (so-CHEE-mil-co) and the canal systems near Mexico City, high in the mountains where the water stays cool. Today they are **critically endangered in the wild**. Their native lake system has been drained, built over and polluted, and introduced fish such as carp and tilapia eat the young. Surveys in recent years have found them in only tiny numbers, and some have found almost none. The animals in the pet trade, and in laboratories around the world, are **captive-bred**, descended from generations of animals raised in human care. Bringing home a captive-bred axolotl does not harm the wild population, and keeping one well is a small way to stay connected to a species that needs the attention. Conservation groups and local communities in Mexico are working to restore the canals, and it is worth looking up their work.

Trait	Detail
Common name	Axolotl (also called Mexican walking fish, though it is not a fish)
Scientific name	<i>Ambystoma mexicanum</i>
Native range	Lake Xochimilco and nearby canals, Mexico
Wild status	Critically endangered ; pet axolotls are captive-bred
Adult length	9-12 inches typically, with some a little larger
Lifespan	10-15 years with good care
Water temperature	60-68°F (16-20°C)
Activity pattern	Mostly crepuscular and nocturnal; more active at dawn, dusk and after dark
Social structure	Best kept alone
Temperament	Calm, curious, food-motivated; not a handling pet
Diet	Carnivore
Legal status	Restricted or banned in some US states; check before buying

Color morphs

A **morph** is a naturally occurring color variation. Axolotls come in several, and none of them affects care requirements.

Morph	What it looks like	Good to know
Wild type	Dark olive, brown or near-black, often with gold flecks and dark eyes	The original wild coloring; excellent camouflage

Morph	What it looks like	Good to know
Leucistic	Pale pink or white body, dark eyes, bright red gills	The classic "pink axolotl." Not albino, because the eyes are dark
Albino	White or pale body with pink or red eyes, red gills	Sensitive to bright light; give extra shade
Golden albino	Yellow to gold body, gold or light eyes	Same light sensitivity as albino
Melanoid	Very dark, almost black, with no gold flecking and dark eyes	Dark coloring makes gill and skin changes harder to spot
Copper	Tan to reddish-brown with a mottled pattern and light red eyes	A less common morph; same care as the rest

Pale-bodied morphs (leucistic, albino and golden albino) show blood flow in the gills and skin more easily, which makes it simple to spot problems early. Dark morphs are just as hardy but need a closer look.

Size, growth and lifespan

Axolotls hatch at roughly the size of a grain of rice, at well under half an inch. They grow quickly: a healthy youngster can add about an inch a month in its first half year. By six to twelve months many are 6 to 8 inches long. Most are sexually mature at 12 to 18 months and finish growing at **9 to 12 inches**. With cool water, clean conditions and good food, a pet axolotl commonly lives **10 to 15 years**. Treat that as a real commitment: a decade or more of weekly water changes, daily temperature checks and a tank that runs best when it never gets too warm.

Legal considerations

Axolotls are not legal everywhere. Some US states restrict or ban them as pets. **California, Maine and New Jersey ban them, and New Mexico requires a permit.** Virginia, which appears on many older lists, has allowed axolotls without a permit since August 1, 2021, and there are further limits in some cities and counties and in other countries. Some places allow possession with a permit and some do not. Because rules change, and because published lists lag behind new regulations, the only reliable answer comes from your own state wildlife or fish and game agency. Please look this up before you buy, and keep a note of what you find. **Never release an axolotl, or any pet, into the wild.** Even a captive-bred animal can carry disease and harm native wildlife, and a pet from a cool, still tank will not survive in a Pennsylvania creek.

Temperament

Axolotls are mellow. They do not bite people in any meaningful way (a feeding axolotl might mistakenly nip a fingertip, which feels like a gentle gum), and they rarely show alarm unless the tank is too warm, too bright or too fast-moving. Many recognize their keepers, swimming to the front of the tank at feeding time. Do not mistake that friendliness for a wish to be held. They are animals to watch, not to cuddle, and their calm often hides how fragile they are.

What surprises new owners

Most people are surprised by four things. The first is **how much the temperature matters**. Many believe that an axolotl is simply an "easy" aquarium animal, and then a hot week in July sends the tank climbing past 75°F. The second is **how sensitive they are to water chemistry**. Their permeable skin and external gills soak up whatever is in the water, including ammonia and chloramine, so a tank that looks perfectly clear can still be harming them. The third is **how little they need in the way of light and flow**. A dim, quiet tank with a few caves is not a boring tank to an axolotl; it is the right one. The fourth is **how long they live**. A ten to fifteen year pet is a long-term partner, not a school-project pet.

SECTION 3

Tank Setup & Layout

An axolotl tank is a cool, calm, shaded underwater space with an open floor to explore. It prioritizes **floor space over height**, because axolotls spend nearly all their time on or near the bottom. A tall narrow aquarium gives them very little room to roam. Sizing is simple: a **20-gallon long** (about 30 inches by 12 inches by 12 inches) is the minimum for one adult, and a **40-gallon breeder** (about 36 inches by 18 inches by 16 inches) is preferred, giving more floor area, more stable temperature and more water to dilute waste.

Tank size	Dimensions (approx.)	Best for	Notes
10 gallon	20" x 10" x 12"	A young juvenile only, short term	Outgrown quickly; water quality swings fast in small volumes
20 gallon long	30" x 12" x 12"	One adult, minimum	Floor space is decent; stable water is harder to maintain than in larger tanks
29 gallon	30" x 12" x 18"	One adult	More height than floor space; fine if the water level is kept modest
40 gallon breeder	36" x 18" x 16"	One adult, preferred	Plenty of floor, more stable temperature and chemistry
55 gallon	48" x 13" x 21"	One adult or an experienced keeper's group	Long run and large volume; a chiller or cool room is still needed

Why one axolotl per tank

Keep a single axolotl in each tank unless you know exactly what you are doing. Axolotls are not social animals. They are opportunistic predators that nip at anything wiggling nearby, including each other's gills, toes and tails. Young ones that are raised together and fed generously can sometimes share space, but the risk of bites, stunted growth and missing limbs is real. Even siblings of the same size can turn on one another when a meal is missed. If you do house two animals together, they should be of similar size, have been raised together, be fed well and often, and have enough hides that neither is forced to share. Be ready to separate them quickly at the first sign of a nipped gill.

The layout, drawn from the lid down to the floor

Picture the tank as a side view, labeled from top to bottom and left to right.

A. Secure lid, with a gap for airflow. A tight, well-fitted lid sits across the full top. A narrow gap or a mesh section at the rear allows fresh air to reach the water surface and lets cooling fans do their job. Axolotls jump when startled, when water quality is poor, or when the tank is too warm, so the lid has to be genuinely secure.

B. Water level, two inches below the rim. Fill the tank so the water sits about **2 inches below the lid** to leave an air gap and keep splashes inside. For a 20-gallon long or 40-gallon breeder, this gives roughly **10 to 12 inches of depth**, which is plenty. Deeper is not better; you simply want the axolotl to reach the surface without swimming a long way.

C. Cooling zone, upper left. A clip-on fan angled across the water surface, or the intake and return lines of a chiller, sits at one end. Evaporation from moving air pulls heat out of the water. This end also benefits from the shade of floating plants or a darker background to avoid solar and lamp heat.

D. Filter, rear right. The sponge filter (or baffled filter outflow) sits against the back wall in the far corner, away from the axolotl's main resting area. Its outflow is angled at the glass or broken up by a sponge so that the water surface gently dimples

rather than ripples. An air pump sits **outside and above the waterline** with a check valve on the airline so water can never siphon back down the tube.

E. Plants, along the back and sides. Java fern and anubias are tied to driftwood or stones along the back wall and corners, with hornwort floating or loosely anchored in the middle ground. They shade the tank, take up nitrate and give the axolotl something to rest against.

F. Caves, left and center floor. Place at least two hides: one near the cooler end and one on the opposite side. Each hide should have an opening wide enough for the axolotl to enter comfortably. A second opening is useful so it never feels trapped.

G. Open floor, center front. Leave a clear stretch of bare bottom or fine sand where the axolotl can walk and be seen. This is also where food is offered and where waste is easily spotted and removed.

H. Thermometer, front glass or inside rear wall. Placed where you can see it from the room without opening the lid.

I. Light, dim and optional. A low-output LED on a timer (eight hours is plenty) is only needed for live plants. Skip bright, heat-producing fixtures. A light directly over the tank can raise water temperature several degrees.

Setting up in the right order

1. Clean the tank with plain hot water only. **No soap, no detergent, no spray cleaner** anywhere near the tank, filter or equipment.
2. Rinse and arrange substrate (if used), rock, driftwood and hides.
3. Fill with dechlorinated water and add the filter. Start your fishless cycle.
4. Add plants once the cycle is under way and the water is clear.
5. Install the cooling system and run it for several days to confirm it holds the temperature.
6. Test, record, and wait until the water reads ammonia 0 and nitrite 0 with a measurable nitrate reading before the axolotl moves in.

SECTION 4

Substrate Guide

Substrate is one of the places where kind intentions go wrong. Axolotls are **suction feeders**, which means they snap their mouths open to create a vacuum that pulls in food, along with whatever else is nearby, including any loose substrate. Anything small enough to swallow can pass into the gut and cause an **impaction**, a blockage that can be fatal. The rule is simple: if it fits in the mouth, it will eventually be swallowed.

Substrate	Best for	Performance	Notes
Bare bottom (no substrate)	Juveniles, new keepers, quarantine, sick animals	Zero impaction risk; easiest to clean and to spot waste and uneaten food	Glass can look stark and is a little slippery; a flat slate or smooth tile can add grip
Fine aquarium sand	Healthy juveniles and adults	Natural look and feel; good traction on the feet; waste and food are visible on top	Use a thin layer (about half an inch to an inch); aquarium-grade sand with grains finer than about 1 millimeter, rinsed well; siphon the surface gently during water changes
Very large smooth stones or river rock	Adults only	No impaction risk if the stones are bigger than the axolotl's head; looks natural	Stones must be too large to fit in the mouth; check for sharp edges and rinse thoroughly; debris can collect between stones
Flat slate or smooth ceramic tile	Any age	Easy to clean; adds traction on bare glass	Check that tile edges are smooth and the glaze is aquarium-safe
Gravel	Avoid	Swallowed with food; impaction risk	Never appropriate for axolotls of any age
Small pebbles and river stones	Avoid	Same as gravel; any stone that fits in the mouth is a danger	Any stone smaller than the axolotl's head is too small
Coarse or crushed-shell sand	Avoid	Sharp grains can scratch skin and gills; can alter water chemistry	No safe use case for axolotls
Calcium or crushed coral substrate	Avoid	Raises pH and hardness; sharp texture	Remove from any setup
Dyed, painted or coated decorations	Avoid	Coatings can leach or flake	Use natural or aquarium-certified items only

Which should you choose?

For most people, **bare bottom** is the easiest and safest, especially for the first year and for anyone still learning. **Fine sand** is the second best option once your axolotl is a healthy, well-fed juvenile (roughly 4 inches or longer) and you are confident in feeding. Younger axolotls are more likely to gulp sand and are more vulnerable to impaction, so it is common practice to keep them on bare bottom until they are larger. **Large smooth stones** are a good option for adults, as long as every stone is bigger than the animal's head. When in doubt, go bare.

Décor safety checklist

Every item that goes into an axolotl tank should pass three tests: it is **smooth** (no sharp edges, rough resin, or snag points for gills and toes), **too large to swallow**, and **free of paints, coatings, or soaps**. Rinse everything in plain water. Avoid ornaments with

tiny holes that could trap a limb or gill. If you are not sure whether a hide is safe, run a damp cotton ball over every edge. If the cotton catches, sand it down or leave it out.

SECTION 5

Water, Temperature & Filtration — The 3 Numbers

An axolotl lives in its water the way you live in the air of your house. It breathes through it, absorbs through its skin from it, and eats and eliminates in it. That is why water is the whole game in axolotl husbandry. Three numbers sum up almost everything you need to track: **temperature**, **zero** (ammonia and nitrite both at zero), and **under 20** (nitrate). Keep those three in range and the rest of the hobby gets a lot easier.

Parameter	Target value	How to measure it	What goes wrong when it's off
Temperature	60-68°F (16-20°C)	Digital probe or aquarium thermometer, checked daily	Above ~72°F: stress, appetite loss, curled gills, weak immunity; above ~75°F: dangerous , with rapid decline possible; below 55°F: sluggish digestion and appetite
Ammonia	0 ppm	Liquid test kit, weekly (daily while cycling or after any problem)	Any reading above 0: burned gills and skin, redness, lethargy, gasping; can be fatal quickly
Nitrite	0 ppm	Liquid test kit, weekly	Any reading above 0: stress and reduced oxygen carrying; gills may turn pale or brown
Nitrate	Under 20 ppm ideally; under 40 ppm at the very most	Liquid test kit, weekly	Rising nitrate over time: poor appetite, stress, shrunken gills, higher infection risk
pH	About 7.4-7.6 ; acceptable 6.5-8	Liquid test kit or pH meter, weekly	Sudden swings are more harmful than a steady slightly off reading; very low or very high pH irritates skin and gills
Chlorine and chloramine	None	Dechlorinator on every new water addition	Burned, red or white-patched gills and skin; fatal in strong doses
Water movement	Gentle ripple only	Watch the gills and the surface	Strong flow: gills curl forward, the axolotl swims against it, stress and exhaustion

Understanding the nitrogen numbers

Every meal an axolotl eats eventually becomes waste, and the first form of that waste is **ammonia**. Ammonia is toxic, even in tiny amounts. Beneficial bacteria living in your filter and on every surface of the tank convert it to **nitrite**, which is also toxic. A second group of bacteria then converts nitrite into **nitrate**, which is far less harmful and which you remove with water changes and, a little, with live plants. This whole chain is the **nitrogen cycle**. It is the invisible engine of the tank, and it takes weeks to build.

This is why you cycle first. A new tank has no bacteria, so ammonia builds up with nowhere to go. An axolotl added too soon is sitting in poison, a problem often called "new tank syndrome." The fishless cycle avoids this entirely. In short: add a small, measured dose of ammonia, test every day or two, and wait. First ammonia climbs, then falls as nitrite appears, then nitrite falls as nitrate rises. When a dose of ammonia (around 2 ppm) reads zero ammonia and zero nitrite 24 hours later, with nitrate present, the tank is ready. Cool water slows bacterial growth, so a cycle at axolotl temperatures can take noticeably longer than one in a warm tropical tank. If you start your cycle in a warm room, be sure to confirm it still works once the water is brought down to 60-68°F.

Even a fully cycled tank can lose bacteria when it is cleaned too aggressively. Rinse filter sponges only in a bucket of old tank water you have just removed, never under the tap, since chlorine kills the very bacteria you spent weeks growing.

Dechlorinator, chloramine and your tap water

Municipal water is treated to be safe for people, not axolotls. **Chlorine** can dissipate if water sits out overnight, but **chloramine** (chlorine bonded to ammonia) does not, and it is increasingly common. A good **dechlorinator** neutralizes both and also temporarily binds some ammonia. Read the label to confirm it says chloramine. If you are on well water, test it before use. Distilled or reverse-osmosis water lacks the minerals needed for a stable tank unless you add them back, so most keepers stick with treated tap water. Use water that matches the tank's temperature to within a couple of degrees whenever you refill.

Weekly water changes

Replace **about 25 to 30 percent** of the water every week. Use a siphon to pull water from the bottom of the tank and remove visible waste and uneaten food at the same time. Treat the new water with dechlorinator in a clean bucket, match the temperature, and pour it in gently. Don't pour straight over the axolotl. Test before and after to see how your numbers move. If nitrate runs high between changes, either change more often or remove less food. Never replace 100 percent of the water at once unless you are following a vet's direction, as it disrupts the bacteria and the pH.

Filtration and flow

Axolotls come from still, shaded canals, and **strong flow stresses them**. When the current is too strong, you will see the gills curl forward, the axolotl swim or brace against the flow, and a tired, stressed animal. The goal is a tank that is thoroughly filtered but barely moving.

Filter type	Works for axolotls?	Notes
Sponge filter on an air pump	Best choice	Gentle, quiet, inexpensive, and provides a large surface for beneficial bacteria; bubbles are fine as long as they don't churn the surface hard
Hang-on-back filter with a baffle	Good, with changes	Needs the outflow broken up with a sponge, a plastic baffle, or a spray bar directed at the glass
Canister filter with a spray bar	Good, with changes	Excellent capacity; direct the spray bar at the back or side glass, not along the length of the tank
Internal power filter	Acceptable	Only if flow can be turned down and diffused
Undergravel filter	Avoid	Pulls substrate and can trap debris; not suited to axolotls

A simple check: watch the gills. If they stream gently or wave slowly, the flow is right. If they are being pushed flat or curled forward, it is too strong. You should see the water surface dimple slightly, not boil.

Cooling options

Keeping the water at **60-68°F** is the biggest practical challenge for many homes. Summer heat is the biggest hazard of axolotl keeping. These are the common solutions, from simplest to most reliable.

Cooling method	How it works	Pros	Cons
Cool room or basement	Place the tank where the ambient temperature stays below about 70°F	Free and stable; excellent in many Pennsylvania basements	Not all homes have such a space; check summer extremes

Cooling method	How it works	Pros	Cons
Air conditioning	Keeps the whole room cool	Protects people and animals together	Costly during long hot spells; can fail during a power outage
Clip-on fans across the water surface	Evaporation pulls heat out of the water, often by several degrees	Cheap and simple; effective in dry air	Water evaporates quickly, so top off with dechlorinated water; less effective in humid weather; keep water splash and noise in mind
Aquarium chiller	Actively cools the water to a set temperature	The most reliable method in hot climates	Costs more up front, uses electricity, and must be sized for the tank
Frozen water bottles (emergency only)	Sealed, clean bottles of frozen water floated in the tank	Quick fix during a heat spike	Temperature swings are stressful; do not drop ice directly into the water; use only as a stopgap
Lid and light choices	Use LED lighting, keep lamps off, avoid direct sun	Free and easy	Does not cool on its own, but avoids adding heat

If the thermometer reads above 72°F, act today. If it reads above 75°F, treat it as an emergency: move the tank somewhere cooler, run fans, float sealed frozen bottles to bring the temperature down gradually (no more than about 2 to 3°F per hour), and call a vet if the axolotl shows signs of distress. Don't plunge an overheated animal into cold water, as a sudden drop is also stressful. Keep a note of the weather forecast during summer and prepare before heat waves arrive. A power outage in a heat wave is the worst case, so keep frozen bottles in the freezer and a battery-powered air pump on hand.

SECTION 6

Diet & Nutrition



Earthworms as the staple, sinking pellets and blackworms alongside. No feeder fish, and nothing that can't be eaten whole and swallowed safely.

Axolotls are **carnivores**. In the wild they hunt small worms, insect larvae, snails, crustaceans and even small fish and tadpoles. In your tank, the goal is a simple, clean diet built around worms and quality sinking pellets. There is no need for complicated recipes. **No mystery ingredients, Clean Fuel, No Junk.** That goes for the foods you choose and the water you pour.

Staple and supporting foods

Food	Role	How to serve it	Notes
Earthworms and nightcrawlers	Staple	Rinse, then cut into pieces no longer than the space between the axolotl's eyes (juveniles) or offer whole to large adults	Source from a bait shop or a worm farm that guarantees pesticide-free worms; never dig them from lawns or treated gardens
Sinking axolotl or salmon pellets	Staple	Drop a few near the snout with tongs or let them sink; remove any uneaten pellets after 20 to 30 minutes	Choose a pellet with fish as the first ingredient and no unnecessary fillers; sized to the axolotl's mouth

Food	Role	How to serve it	Notes
Blackworms	Staple for juveniles; supporting food for adults	Rinse well and drop a small clump into a shallow dish or the tank	Keep refrigerated in a shallow tray of cool, clean water and rinse daily; good for small animals
Bloodworms (frozen)	Occasional treat	Thaw, rinse, and offer a small pinch	Low in nutrition and not a staple; avoid freeze-dried versions that float and encourage air swallowing
Daphnia and baby brine shrimp	Hatchlings only	Offer live or frozen in tiny amounts, several times daily	Newly hatched axolotls are too small for worms

Feeding technique

Axolotls are **suction feeders**: they open their mouth wide and pull food in with a quick gulp. They have poor eyesight and find food mainly by movement and scent, so they may strike near the food rather than at it. Offer worms with a pair of blunt feeding tongs, wriggling gently near the snout, or drop pellets near the nose. Always feed in the water and avoid foods that float. An axolotl that grabs food from the surface sucks in air with it, which can cause gas and floating problems. Pick out any uneaten food promptly. Rotting food drives ammonia up quickly in cool water, a situation the filter can't always handle.

Do not be alarmed if your axolotl occasionally refuses a meal. They are cold-blooded and in cool water appetite swings. A healthy adult can safely skip a meal or two. A skipped meal combined with other symptoms is different, and the Common Challenges section will help you tell the difference.

Feeding schedule by age

Life stage	Approximate size	How often	What to offer
Hatchling	Under 1 inch	Two to three times daily	Live daphnia, baby brine shrimp, and finely chopped blackworms
Small juvenile	1-3 inches	Once or twice daily	Blackworms and tiny pieces of earthworm; very small sinking pellets
Juvenile	3-6 inches	Once daily	Chopped earthworms, blackworms and appropriately sized pellets
Sub-adult	6-8 inches	Once daily or every other day	Earthworm pieces, pellets, an occasional blackworm treat
Adult	9-12 inches	Every 2-3 days	Whole or halved nightcrawlers, or a small portion of quality pellets, with the occasional worm treat

A good rule is to offer what your axolotl will eat within about **10 to 15 minutes**, no more than that. For a typical adult, that might be two to three nightcrawler pieces or a small handful of pellets. Young axolotls grow fast and need regular meals, and if they aren't fed enough, they may nip at each other or at tankmates.

Never feed

- **Feeder goldfish and "rosy reds"** — these carry parasites and disease, contain **thiaminase** (an enzyme that destroys vitamin B1 and causes deficiency over time), and are high in fat. A repeated habit can cause serious health problems.

- **Mealworms and crickets as staples** — the hard shells are difficult to digest and can contribute to impaction. They are not natural prey and offer poor nutrition.
- **Wild-caught worms, insects or snails** — they may carry parasites, pesticides or fertilizer residues.
- **Beef, chicken, pork and other mammal or bird meat** — their fats are poorly digested and can cause serious problems.
- **Tropical fish flakes and generic fish food** — insufficient protein and nutrition for a carnivore.
- **Human food, bread, cheese or anything cooked or seasoned** — none of it belongs in an amphibian tank.
- **Anything that floats and encourages air-gulping** — pellets and freeze-dried foods that float should be pre-soaked or avoided.

Shop the food and supplies: [Browse Food for Aquatics.](#)

SECTION 7

Gills, Skin & Regeneration

Your axolotl's body is a health report you can read at a glance, if you know what to look for. The most informative part is the gills.

Reading the gills

An axolotl has three pairs of **gills**, the feathery stalks on each side of the head, lined with fine filaments that pull oxygen out of the water. Because the filaments are so thin, blood flowing through them gives them their red or pink color. Their shape changes with mood, water quality and health.

What you see	What it usually means
Full, fluffy filaments streaming gently backward or outward	Healthy and comfortable
Gills curled forward over the face	Stress: most often flow that is too strong, poor water quality, or water that is too warm
Short, stubby, thin or shrinking gills	Chronic stress, poor water, high nitrate or heat; sometimes follows an injury
Pale, whitish gills	Possible low oxygen, anemia, or stress; check temperature and water numbers
Gills with white cotton-like fluff	Fungus, often following injury or poor water
Ragged, nipped or missing filaments	Bites from a tankmate, snagging on decor, or chemical exposure

Gill shape is useful because it is easy to compare from day to day. Take a photo on day one and every month after, so you can see slow changes.

Skin and slime coat

Axolotl skin is thin, soft and permeable (liquids and chemicals pass through it). It is covered in a protective **slime coat**, which is why handling is risky: oils, soap, lotion and warm hands strip or damage it. Healthy skin looks smooth, even in color, and slightly glossy. Warning signs include patchy white areas, a cloudy "film," reddish streaks (often from ammonia), or small raised spots.

Regeneration

Few animals match the axolotl's ability to **regenerate**, meaning to regrow lost or damaged body parts. Axolotls can regrow limbs, tails, gills and parts of organs, including portions of the heart, brain and spinal cord, often without scarring. This is why laboratories around the world study them.

Please do not take this as permission to be careless. Regeneration needs clean, cool, well-kept water, and a wound in dirty or warm water can become infected before it has a chance to heal. Regrowth can take weeks or months, and the new part is sometimes misshapen or has extra toes. A bite that goes deep, a limb that looks twisted, or an injury that doesn't improve deserves a vet's attention. With an injury, keep the water pristine and cool, remove any tankmate, and avoid adding chemicals or salts without a vet's guidance.

SECTION 8

Common Challenges & Solutions

Heat stress

What you see: gills curled forward, restless pacing or hovering near the surface, loss of appetite, floating, pale or dull skin, unusual stillness. **Why:** the water is too warm, usually above about 72°F. Warm water holds less oxygen while speeding up the axolotl's metabolism and encouraging bacteria and fungus. Above about 75°F it can become life-threatening. **What to do:** check the temperature now. Add fans, move the tank to a cooler room, or float sealed frozen bottles, and bring the temperature down gradually. Reduce feeding while the tank is warm and keep the water clean. **When to call a vet:** if the water has been above 75°F and the axolotl is floating, gasping or not responding normally.

Ammonia burn and poor water quality

What you see: red, inflamed or raw skin or gills, gasping at the surface, lethargy, refusing food, gills that look pale or damaged. **Why:** ammonia or nitrite is above zero, often because the tank was not fully cycled, the filter was disrupted, or uneaten food was left behind. **What to do:** test immediately. If ammonia or nitrite reads above zero, do a large partial water change with temperature-matched dechlorinated water, repeat daily as needed, remove waste, and check the filter. **When to call a vet:** if skin or gills look burned, or the axolotl is lethargic and not recovering within a day or two of water corrections.

Gills curled forward (flow stress)

What you see: gills bent forward over the face, the axolotl pushing against the current, tail curling, hiding in a corner. **Why:** strong flow, but also poor water quality or high temperature. **What to do:** reduce the flow by diffusing the outflow, turning it down, or pointing it at the glass. Test the water and the temperature. The gills usually relax over days once the cause is fixed. **When to call a vet:** if gills stay curled for more than a week after you've corrected the water and flow.

Fungus

What you see: white or gray cotton-like tufts on the gills, skin or injured areas. **Why:** fungal spores take hold on damaged skin, especially in poor water, after an injury, or when the axolotl is stressed. **What to do:** correct the underlying cause first (water quality, temperature, injuries) and keep the water clean and cool. Ask a vet before using any medication or bath. **When to call a vet:** promptly, since fungus can spread quickly and some cases need prescribed treatment.

Gill shrinkage or loss

What you see: gills gradually shorter, thinner or reduced to stubs. **Why:** chronic stress, high nitrate, warm water, strong flow, or injury. **What to do:** test and correct water, temperature and flow, and increase water changes. Gills can regrow in good conditions, which takes weeks to months. **When to call a vet:** if shrinkage is rapid, if the stubs look raw, or if there are other signs of illness.

Floating, gas and bloat

What you see: the rear end bobbing up, the axolotl struggling to stay down, a swollen belly, or a taut, round body. **Why:** swallowed air from floating food or gulping at the surface, constipation, gas from digestive trouble, or infection. **What to do:** stop feeding for a few days, keep the water cool and clean, and avoid foods that float. Minor floating often resolves in a day or two. **When to call a vet:** if floating lasts more than a few days, the belly is swollen and hard, or the axolotl cannot submerge at all.

Impaction

What you see: no waste for a week or more, loss of appetite, a bloated belly, visible gravel or sand in the gut, repeated vomiting-like gagging. **Why:** swallowing gravel, sand, pebbles or hard insects. **What to do:** remove risky substrate, move to bare

bottom, keep the water cool and clean, and avoid feeding until you have advice. **When to call a vet:** early. Impaction can be fatal and some cases need veterinary treatment.

Refusing food

What you see: the axolotl ignoring food for several meals. **Why:** water too warm or too cold, poor water quality, stress from a recent move, bright light, a new tankmate, or illness. **What to do:** check temperature and water first, then the environment. Offer a different food, such as a live blackworm. Healthy adults can safely skip meals for a couple of weeks. **When to call a vet:** if refusal lasts more than two weeks in an adult (sooner for juveniles), or comes with weight loss or other symptoms.

Injuries and nipping from tankmates

What you see: missing toes, nipped gills, bite marks, a shortened tail. **Why:** axolotls bite anything that moves, including each other, especially when hungry. **What to do:** separate the animals right away, keep the injured one in clean cool water, and offer more food to the others. **When to call a vet:** for deep wounds, heavy bleeding, exposed tissue or signs of infection.

Parasites and infection

What you see: weight loss despite eating, stringy or abnormal waste, unusual lumps, persistent lethargy, skin lesions or ulcers. **Why:** parasites from contaminated food, wild-caught live food or new animals; bacterial infection from stress. **What to do:** quarantine new animals, feed only safe foods, and keep up water quality. Don't treat without a diagnosis. **When to call a vet:** early. A fecal exam or skin test can identify the problem.

Chemical exposure

What you see: sudden hiding, frantic swimming, curled gills, slimy or cloudy skin, rapid decline after cleaning or spraying nearby. **Why:** soap, detergent, aerosols (including air fresheners, bug spray and cooking sprays), fertilizers, lotion or sanitizer, or untreated tap water. Their skin absorbs everything. **What to do:** immediately move the axolotl into a clean tub of dechlorinated, temperature-matched water, do a large water change in the tank, and run fresh activated carbon in the filter if you have it. **When to call a vet:** right away, as chemical exposure can be an emergency.

Quick reference

What you see	Likely cause	What to do	Vet urgency
Gills curled forward, restless	Heat, flow or water quality	Check temperature, flow and water numbers	If it lasts over a week
Red gills, gasping, lethargy	Ammonia or nitrite	Test and do large water change	Same day if skin looks burned
White cotton tufts	Fungus	Fix water and injuries; ask a vet about treatment	Prompt
Floating, swollen belly	Gas, air, constipation	Stop feeding; keep cool and clean	If over a few days
No waste, bloated belly	Impaction	Remove substrate; withhold food	Early, same day if severe
Shrinking gills	Chronic stress	Correct water, temperature and flow	If rapid or raw
Missing toes, nipped gills	Bites	Separate animals; clean cool water	Deep wounds same day
Refusing food	Temperature, stress, illness	Check numbers; vary food	After two weeks (adults)
Sudden hiding after spray or cleaning	Chemical exposure	Move to clean water; large change	Right away

SECTION 9

Handling

Axolotls are best enjoyed with your eyes, not your hands. Their skin and slime coat are delicate, and the warmth of a human hand can overheat and harm them. Even clean hands can strip the slime coat, leaving the skin open to infection. This is a hands-off pet, and the best keepers are the ones who resist the urge.

When you must move an axolotl, for a tank clean, a vet visit or an emergency, use a **clean container** rather than your hands. Fill a food-safe tub with water from the tank, so the temperature and chemistry match. Coax the axolotl into the container with a smooth, slow guide, or slide the container under it. If you must use a net, choose a soft, fine-mesh one with no rough edges, and skim only briefly. Keep the container lidded and out of direct light.

If handling is unavoidable, wet your hands in clean, cool, dechlorinated water first, with **no soap, lotion, sanitizer or bug spray** on your skin. Support the whole body from beneath, keep your grip gentle and brief, and put the animal back as quickly as possible. Never lift it by the limbs or tail, and never let it dry out.

Always wash your hands thoroughly with soap after touching the tank or the water, and rinse well. Salmonella can be carried by amphibians, so keep tank supplies out of the kitchen and supervise children closely. Young children, older adults and anyone with a weakened immune system should be careful about contact.

SECTION 10

Routine Care Calendar

How often	What to do
Daily	Check the water temperature and confirm the cooling system is working
Daily	Watch the axolotl: gill shape, posture, skin and activity
Daily	Remove uneaten food and any visible waste
Daily	Feed according to age (juveniles daily; adults every 2-3 days)
Daily	Confirm the filter is running and the lid is secure
Weekly	Test ammonia, nitrite, nitrate and pH, and write the numbers down
Weekly	Change 25-30% of the water with dechlorinated, temperature-matched water
Weekly	Siphon waste from the bottom; wipe algae from the glass
Weekly	Check plants and décor for decay or sharp edges
Monthly	Rinse filter sponge in a bucket of old tank water; never under the tap
Monthly	Check the chiller, fans, air pump tubing and check valve
Monthly	Photograph the axolotl for a gill and body baseline
Seasonally	Before summer, test your cooling system and stock frozen bottles and a battery air pump
Annually	Replace worn airline tubing, air stones and thermometers if needed
Annually	Book a wellness check with an exotic or amphibian-experienced vet if one is available

SECTION 11

When to See a Vet

Axolotls hide illness well, and the cold slows everything down. When in doubt, call. Axolotls need an **exotic or amphibian-experienced vet**, so find one early, ask whether they treat aquatic amphibians, and keep their number handy. When you go, bring the axolotl in a lidded container with its own tank water, insulated so the temperature stays steady, plus your recent test results and temperature log.

Go today:

- Gills curled forward with gasping, floating or collapse after a heat event
- Burned, raw or bleeding skin or gills after an ammonia or chemical exposure
- Floating that prevents the axolotl from submerging, especially with a swollen belly
- A bite wound with heavy bleeding, exposed tissue or a lost limb
- Rapid spread of fungus across the gills or body
- No stool for a week with a hard, bloated belly after eating substrate
- Sudden loss of coordination, spinning or unresponsiveness

Book within a few days:

- Refusing food for two weeks or more
- Gradual gill shrinkage that doesn't improve after the water is corrected
- Persistent white patches, ulcers, lumps or skin changes
- Weight loss despite eating
- Curled gills lasting more than a week after you've fixed flow, temperature and water

SECTION 12

FAQ

What temperature do axolotls need?

Axolotls need cool water, ideally **60-68°F (16-20°C)**, which is closer to a cool basement than a typical living room. Above about 72°F they become stressed, with curled gills, poor appetite and a weaker immune system, and above about 75°F the water is dangerous. They never need a heater, and many homes need a chiller, fans or a naturally cool room to stay in range, especially in summer. Check the temperature with a reliable thermometer every day, and set up your cooling before the animal arrives rather than after the first heat wave.

How big do axolotls get?

Most axolotls reach **9 to 12 inches** as adults, and a few grow a little larger. They grow quickly in the first year, often reaching 6 to 8 inches by around twelve months, and finish growing somewhere between 18 months and two years. Size varies with diet, water quality, temperature and genetics, and a well-fed animal in clean, cool water will usually reach the top of its range. Plan your tank for the adult, not the baby, because a hatchling that fits in a small tub today will need real floor space within a year.

How long do axolotls live?

With good care, axolotls live about **10 to 15 years** in captivity, which makes them a long commitment for a pet that looks like a small cartoon. Stable cool water, a fully cycled tank, a clean diet and low stress all support a long life, while heat and poor water quality are the biggest threats to it. Think of it as a decade of weekly water changes and daily temperature checks, and the reward is a calm, curious companion that gets to know the rhythm of your household.

What do axolotls eat?

Axolotls are carnivores. The staples are earthworms or nightcrawlers cut to size, quality sinking axolotl or salmon pellets, and blackworms, with bloodworms as an occasional treat rather than a regular meal. Juveniles eat daily and adults eat every 2 to 3 days, and any uneaten food should come out of the tank promptly so it does not foul the water. Do not feed feeder goldfish or rosy reds, which carry parasites and a vitamin-destroying enzyme called thiaminase, and do not rely on mealworms or crickets, which are hard to digest and not natural prey.

What size tank does an axolotl need?

A single adult needs at least a **20-gallon long** tank, and a **40-gallon breeder** is preferred. Axolotls live on the floor of the tank, so choose a wide, low tank over a tall one, and fit a secure lid because they can jump. Larger volumes also keep temperature and water chemistry more stable, which matters because ammonia, nitrite and heat are the problems that harm axolotls most often.

Can axolotls live together?

Usually it is best to keep one axolotl per tank. Axolotls nip at anything that moves, including each other's gills, toes and tails, and they will eat a smaller tankmate. Animals raised together, matched in size and fed generously sometimes get along, but a missed meal can change that overnight, so be ready to separate them at the first nipped gill. Fish are not suitable tankmates because they nip the gills, small fish get eaten, and most tropical species cannot live in water this cool.

Can you hold an axolotl?

It is best not to. An axolotl's skin and protective slime coat are delicate, and the warmth of a human hand can harm them, so this is a pet to watch rather than cuddle. Use a clean container to move them whenever you can. If handling is unavoidable, wet clean, soap-free hands in dechlorinated water, keep contact brief, and wash your hands afterward because amphibians can carry Salmonella.

Do axolotls need a filter?

Yes. A filter is home to the beneficial bacteria that turn toxic ammonia into less harmful nitrate, and it keeps the water clean between your weekly changes. The key is choosing a gentle one, such as a sponge filter or a baffled filter, because strong flow stresses axolotls and makes their gills curl forward. Aim for a tank that is thoroughly filtered but barely moving.

Are axolotls legal to own?

It depends on where you live. Axolotls are restricted or banned in some US states: California, Maine and New Jersey ban them, and New Mexico requires a permit. Virginia, which appears on many older lists, has allowed axolotls without a permit since August 1, 2021. Some cities, counties and other countries have their own rules. Laws change and published lists can lag behind, so confirm with your state wildlife or fish and game agency before you buy. Wherever you live, never release an axolotl into the wild.

Why are my axolotl's gills curled forward?

Gills curled forward over the face usually signal stress. The most common causes are water flow that is too strong, poor water quality such as ammonia or nitrite, and water that is too warm. Test the water, check the temperature, and soften the flow with a sponge or baffle. The gills often relax within days once the cause is fixed, and an exotic or amphibian-experienced vet can help if they stay curled.

Ready to shop? Start with *Aquatics*. 10% of every purchase supports no-kill animal shelters. Not sure this is the right pet? Compare your options in our *Amphibian Guide*.

SECTION 13

Every Purchase Gives Back

Before we earn a dime, **10% of every purchase at Walnut Creek Supply goes to no-kill animal shelters across the country.** Not at checkout. Not as an option. Off the top of every order, every day, because we believe responsible pet ownership and community care are the same commitment made in two different directions.

For axolotl keepers, that spirit shows up in small ways: asking about local laws before you buy, keeping the water honest, and never releasing a pet into the wild. If you have read this guide, you are already the kind of keeper these gentle, grinning animals deserve.

We're a family business in Christiana, Lancaster County, Pennsylvania. We grow our own food, keep our own animals, and stock the clean-label goods we would put in front of our own pets, with **no mystery ingredients** and no junk. If you have a question about cooling, cycling, or anything else about your axolotl, call us at **(717) 983-8069**. We'd rather talk it through with you.

Welcome to a decade or more with one of the most charming animals in the world.

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