

# Medicinal Leech

**Genus:** *Hirudo*  
**Family:** Hirudidae  
**Order:** Hirudinea  
**Class:** Clitellata  
**Phylum:** Annelida  
**Kingdom:** Animalia



## **Conditions for Customer Ownership**

We hold permits allowing us to transport these organisms. To access permit conditions, [click here](#).

*Never purchase living specimens without having a disposition strategy in place.*

- There are currently no USDA permits required for this organism. In order to protect our environment, never release a live laboratory organism into the wild.
- These leeches are NOT to be used for medicinal purposes. They are meant for educational use only.

## **Primary Hazard Considerations**

Always wash your hands thoroughly before and after you handle your leech, its food, or anything it has touched. Do not handle leeches with bare hands or expose any bare skin to leeches. They can attach with suckers and pierce skin. This is generally not painful, but does provide an opportunity for infection. If pierced by a leech, gently remove the leech and disinfect the area with 70% alcohol.

## **Availability**

- Leeches are available year round. The majority of medicinal leeches are laboratory breed.
- Leeches are shipped in a jar with pond water. Upon arrival, loosen the lid to allow for gas exchange since they are not packaged with air. A leech can be stored in its shipping container at room temperature for 3–4 days before it needs to be transferred to a new home. A live leech may lay motionless if cold. Medicinal leeches should never be stored in the fridge. The medicinal leech has a cylindrical, dorsoventrally flattened body. Both ends of the leech have a circular disc-shaped sucker. Medicinal leeches are dark brown to black and their back side has reddish-brown stripes and their ventral side is speckled. Their usual size is two to four inches but can grow to be larger.

## **Captive Care**

### **Habitat:**

- Any escape-proof container with holes in the lid for oxygen exchange. You can use an aquarium, terrarium, or even a plastic 1–5 gallon bucket. Fill the container  $\frac{3}{4}$  full of de-chlorinated spring or pond water. Tap water can be de-chlorinated by letting it sit out for 48 hours or by adding a de-chlorinating solution such as [Stress Coat 21 W 2338](#). Aeration of the water using an air pump and stone is recommended, but not required. A plastic cover with holes for ventilation, plus a covering of cloth or netting secured by a rubber band or tape will keep the leeches confined. If using an air pump and stone, cut a hole in the netting just big enough for the tubing to fit. Leeches are very elastic and can constrict their bodies to escape through some very narrow apertures—hence the need for the cloth or netting. Allow for an air space in the container, as the leeches are air breathers, but can breathe in water as well, and like to attach themselves to the sides of the container out of the water.
- A good rule to prevent overcrowding is one leech per liter of water in your container but during shipment a single leech is packed in an 8 oz. jar.
- Leeches should be kept at room temperature 68–77°F (20–25 °C).
- Lights are not required as leeches are nocturnal.

## Care:

- Medicinal leeches are parasites that prefer to feed on frog or mammalian blood. They are also known for eating amphibian and fish eggs. Leeches can feed from raw liver that you can buy at a grocery store. You can also feed leeches with blood (rabbit, cow, or sheep). Put some blood in a Petri-dish inside of a pan and introduce the leech to the pan. To prevent over-feeding, provide only what your leeches can consume in a 15 minute time period. Leeches should be fed about once a month, but can go for up to six months without feeding.
- Their water should be changed weekly to keep levels of toxins, decaying matter, and debris at a minimum. Remove  $\frac{1}{4}$  of the old water from the container and replace with fresh de-chlorinated water.

## Information

Method of Reproduction: Leeches are hermaphroditic (produce both male and female gametes) but reproduce sexually with another individual on dry land. Leeches intertwine together, each releasing sperm into the others' vagina. The clitellum forms a cocoon that is dropped into moist soil where the eggs will develop until they hatch. Reproduction in captivity is rare.

## Life Cycle

It generally takes about 2 weeks for the eggs to hatch into little leeches—about 5 per cocoon. They become reproductively mature in about a year. A leech can live from 2–8 years.

## Wild Habitat

The medicinal leech has become rare in its original range in Europe. This is likely due to overharvesting by humans in the last century and a reduction in the frog population in their habitat of muddy-bottomed, freshwater ponds. Frogs are required to support immature leeches whose jaws are not developed and strong enough to pierce the skin of a mammal. In the wild, leeches have been known to feed on fish, amphibians, birds, and mammals.

## Special Notes

- Medicinal leeches have sense organs on the body and head that allow easy detection of prey. They can perceive changes in temperature, vibrations, light intensity, and chemicals with these organs so that they can detect prey.
- Medicinal leeches are used for a variety of medical purposes, however the leeches we carry are not suitable for medicinal usage.

## Disposition

- We do not recommend releasing any laboratory animal into the wild, and especially if they are not native to the environment.
- Adoption is the preferred disposition for any living animal.
- If the leeches must be euthanized at the end of study, follow one of these procedures:
  - Put them into a container or bag and freeze for 48 hours.
  - Place them in 70% isopropyl alcohol for 24 hours.
- A deceased specimen should be disposed of as soon as possible. Consult your school's recommended procedures for disposal. In general, dead leeches should be handled as little as possible or with gloves, wrapped in an opaque plastic bag that is sealed (tied tightly) before being placed in a general garbage container away from students.