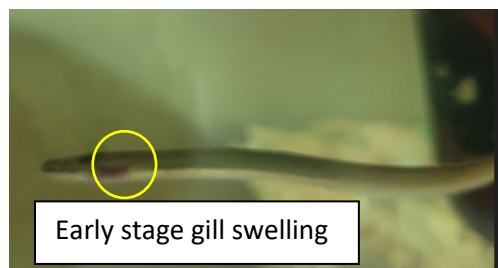


American Eel Disease

Despite being hardy creatures, elvers are not immune to diseases in the wild or captivity. SRBC checks elvers before delivery, disinfects equipment, and works to reduce the amount of time eels are in holding. However, despite best efforts by SRBC and teachers, elvers may have illnesses present when in captivity, usually within the first two weeks post-delivery.

If your tank's nitrate levels are okay and elvers get sick, it could be due to an illness present when they were captured. We ask you do your best to treat the eels with the following guidelines, but we understand not all elvers may survive. We know illness and mortality can be stressful and disappointing for both students and teachers alike, and we appreciate your best efforts and any feedback you may have.

While it's hard to tell what disease may be present without immediate testing (virus, bacteria, fungus, parasite), the symptoms below have been previously reported in captivity. Ich, a parasitic infection of the gills (cause by *Ichthyobodo*), is common and may create white spots on body of eels. Other illnesses may present symptoms similar to the ones outlined below, but it is difficult to know what the precise cause is. We recommend using best judgement and beginning with salt treatment, followed by ich treatment if needed for most cases. The other treatment options are listed if the cause is known.



Other possible symptoms:

- Gills (naturally rosy in color) become bright red and protrude outward
- Lethargic behavior OR over active swimming

Please remind your students American eels are a data limited species, and your observations and experiences are helping better understand these fascinating creatures. In fact, little is known about a new disease recently documented in the Chesapeake Bay ([Emerging Red Sore Disease in the American eel, 2023](#)). In the event of illness or tank loss, we are unfortunately not able to provide new eels due to permitting numbers and the seasonality of migration. If applicable, former teachers have shifted lessons to life cycle and food web dynamics, existing challenges to aquatic species management, and emerging aquatic diseases.

Treatment Options

If you haven't already done so, we first recommend treating with aquarium salt and waiting a few days for improvements. Ich treatment can be tried next, including multiple rounds if needed. Based on prior years, while helpful in some cases, we now only recommend anti-bacterial, viral, or fungal products if the cause is directly observed or known (ex: lab results or visual fungus or parasite).

Helpful to keep in mind:

Eels are considered **scaleless fish** and require different treatment than scaled fish. **Never use copper based treatments!**

Isolate sick eels in separate tank or large temporary container (with bubbler).

If possible, take **photos/videos** and report to SRBC.

- **Salt**
 - **General treatment option.** Salt draws out impurities or excess fluid due to osmotic pressure.
 - Dissolve salt in a separate container in a small amount of water before adding to tank (**do not add directly to tank**). Common table salt or kosher salt is fine, non-iodized and no additives.
 - Add 1 teaspoon of salt for 1 gallon of water (¼ c salt for 10 gallons of water).
 - Observe eels and conduct a water change if symptoms get worst. If symptoms improve, change water in small increments 5-7 days after.
- **Super ICH Treatment**
 - Use ½ dose for scaleless fish. May stain tanks. Multiple rounds may be required.
 - **Must** remove charcoal filter while using or else medicine will be filtered out.
- **Bacterial**
 - MelaFix tank additive (derived from tea tree oil)
 - Imgaitarium bacterial tank additive
 - **Must** remove charcoal filter while using or else medicine will be filtered out
- **Fungal**
 - PimaFix tank additive (derived from West Indian Bay Trees)
 - **Must** remove charcoal filter while using or else medicine will be filtered out

Mortality

- Deceased eels can be preserved in ethanol in glass jars or dissected as a class (use best judgement). Eels may also be flushed.
- **Clean all supplies.** Disinfect tank, tank lid, substrate, pumps, air stones, nets with diluted bleach solution (1 part bleach to 10 parts water). Household bleach (not gelled) is best.
 - Fill spray bottle with bleach solution and spray interior and exterior of tank. Let sit for 10-15 minutes.

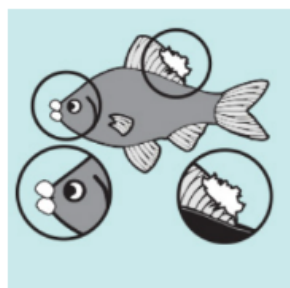
- Rinse thoroughly with plenty of clean water. Let air dry for 24 hours.
- Submerge other items into 10% bleach solution in bucket. Let sit for 10-15 minutes. Rinse 2-3x with plenty of clean water. Let air dry for 24 hours.

What's next?

Unfortunately, we are only able to provide eels once a year. However, there may be other schools in your district/area with tanks and release day activities planned. SRBC can confirm this and put you in contact with other teachers if interested. If transportation allows, consider joining other schools for end of year activities. Some schools offer live video feeds of their eel tanks including [Donegal Intermediate School](#) and [The Vernal Preserve](#).

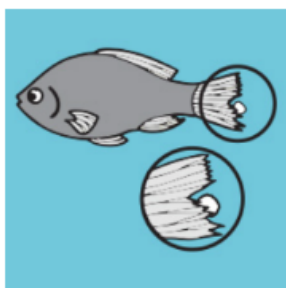
Treatment Guide

This guide is from [API's Super Ich Treatment description](#) on Amazon. While generalized, it is a helpful starting point to identifying illnesses. Teachers have used API products in the past as they are commonly available online and in pet stores.



Fungal Infection

- Whitish cottony tufts or patches appear on the mouth, skin and fins of tropical fish, goldfish and koi.
- We recommend **API PIMAFIX**.



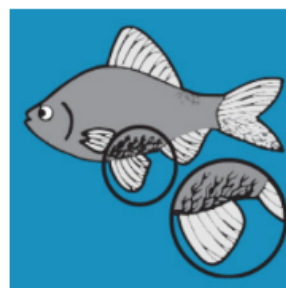
Fin And Tail Rot

- Fins appear ragged and split. Disease can progress until fins and tail are completely eroded.
- Secondary fungal infections commonly occur.
- We recommend **API MELAFIX** (or **BETTAFIX** if you have a betta fish), or alternatively **PIMAFIX** or **FIN & BODY CURE**.



Dropsy and Malawi Bloat

- Fish develop a bloated appearance due to accumulation of fluid in the body cavity.
- Scales may appear to stick out from the sides of fish.
- In advanced cases, fish lose the ability to swim and may float upside down.
- We recommend **API MELAFIX** (or **BETTAFIX** if you have a betta fish) or **PIMAFIX**, or alternatively **FIN & BODY CURE**.



Bacterial Hemorrhagic Septicemia

- Fish show blood streaks in the fins and body.
- We recommend **API MELAFIX** (or **BETTAFIX** if you have a betta fish), or alternatively **PIMAFIX** or **FIN & BODY CURE**.



Eye Cloud, Body Slime

- Eyes develop a whitish haze and/or protrude from the head.
- Hazy or slimy patches appear on the bodies of fish.
- If infested with parasites, fish may scratch on objects in the aquarium and exhibit rapid breathing.
- We recommend **API MELAFIX** (or **BETTAFIX** if you have a betta fish), or alternatively **PIMAFIX** or **FIN & BODY CURE**.



Open Red Sores

- Fish exhibit open red sores on the body.
- We recommend **API MELAFIX** (or **BETTAFIX** if you have a betta fish), or alternatively **PIMAFIX**, **E.M. ERYTHROMYCIN** or **FIN & BODY CURE**.



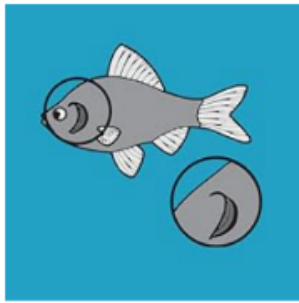
Mouth Fungus - Saddleback Disease

- Raised, gray patches are observed on the fins and mouth areas of fish.
- Live bearers, such as guppies and mollies, develop grayish patches on their backs, giving rise to the name "saddle back disease."
- Infected areas may develop into red ulcers and infect the gills, causing rapid loss of fish.
- We recommend **API MELAFIX** (or **BETTAFIX** if you have a betta fish) or **PIMAFIX**, or alternatively **E.M. ERYTHROMYCIN** or **FIN & BODY CURE**.



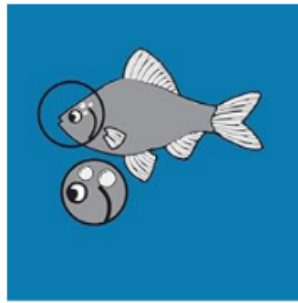
Bacterial Gill Disease

- Fish will scratch against objects and appear listless. A grayish film may form on the body.
- Rapid breathing in fish may be accompanied by gasping at the surface of the water, or the fish sitting on the bottom of the aquarium.
- Gills undergo severe damage, leading to suffocation and death.
- We recommend **API MELAFIX** (or **BETTAFIX** if you have a betta fish), or alternatively **PIMAFIX**, **E.M. ERYTHROMYCIN** or **FIN & BODY CURE**.



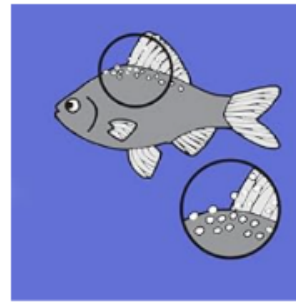
Flukes/Parasitic Worms

- Most parasitic worms are not visible without the aid of a microscope. Fish will scratch against objects and appear listless. A grayish film may form on the body.
- Rapid breathing in fish may be accompanied by gasping at the surface of the water, or the fish sitting on the bottom of the aquarium.
- Gills undergo severe damage, leading to suffocation and death.
- We recommend **API GENERAL CURE**. For secondary or fungal infection, use **MELAFIX** (or **BETTAFIX** if you have a betta fish) and **PIMAFIX** together.



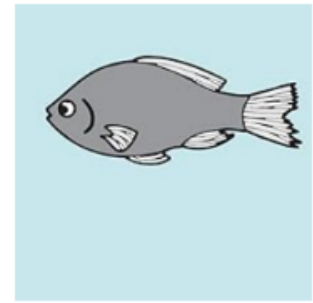
Hole-In-The-Head Disease (Hexamita)

- The most obvious symptom is the pitting and erosion of skin and muscle tissue around the face of the fish. This erosion appears to be a symptom of the parasite's presence in the intestinal tract, not on the surface of the fish.
- Many fish exhibit poor appetite, weight loss and nervousness; without proper treatment, death ultimately results.
- We recommend **API GENERAL CURE**



Ich (Ichthyophthirius)

- Early symptoms of this infection in fish include darting in the aquarium and scratching against the gravel and ornaments.
- Fish exhibit labored breathing and may remain at the water's surface, near filters and aeration devices.
- White spots may or may not be visible on the fish.
- We recommend **API SUPER ICK CURE** along with **API AQUARIUM SALT**



Subclinical Parasitic Infestation

- Fish may scratch on objects in the aquarium.
- Slimy skin may develop on fish and fins may be clamped.
- Labored breathing may be observed.
- We recommend **API SUPER ICK CURE** along with **API AQUARIUM SALT**.



API MELAFIX

Add to Cart



API PIMAFIX

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API FIN & BODY CURE

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E.M. ERYTHROMYCIN

Buying Options



API SUPER ICK CURE

Add to Cart



API AQUARIUM SALT

Add to Cart

Customer Reviews	★★★★★ 6,528	★★★★★ 7,491	★★★★★ 3,520	—	★★★★★ 10,760	★★★★★ 22,907
Price	\$14 ³⁸	\$12 ⁰⁸	\$15 ¹⁴	—	\$17 ⁹⁸	\$12 ⁴⁹
Fin And Tail Rot	✓	✓	✓			Use in combination with medications
Dropsy and Malawi Bloat	✓	✓	✓			Use in combination with medications
Bacterial Hemorrhagic Septicemia	✓	✓	✓			Use in combination with medications
Eye Cloud, Body Slime	✓	✓	✓			Use in combination with medications
Open Red Sores	✓	✓	✓	✓		Use in combination with medications
Mouth Fungus - Saddleback Disease	✓	✓	✓	✓		Use in combination with medications
Subclinical Parasitic Infestation	Melafix & Pimafix used together	Melafix & Pimafix used together			✓	Use in combination with medications
Ich (Ichthyophthirius)					✓	Use in combination with medications
Fungal Infection		✓				Use in combination with medications
Bacterial Gill Disease	✓	✓	✓	✓		