

+ TROPICAL FISH FIRST AID +

	SUGGESTED TREATMENT	APPEARANCE	CAUSATIVE AGENT
Fungal Infection	PIMAFIX®	 Whitish cottony tufts or patches appear on the mouth, skin and fins of tropical fish, goldfish and koi. 	True fungal infections are caused by <i>Saprolegnia</i> and <i>Achlya</i> species.
Fin and Tail Rot	For an alternative medication, select one of the following treatments: PIMAFIX or FURAN-2 or TRIPLE SULFA or E.M. ERYTHROMYCIN or T.C. TETRACYCLINE.	 Fins appear ragged and split. Disease can progress until fins and tail are completely eroded. Secondary fungal infections commonly occur. 	Several bacteria infections can cause degradation of the fins and tails of fish. These pathogens include Flavobacterium columnaris, Nocardia, Mycobacterium and Pseudomonas species.
Flukes/Parasitic Worms	GENERAL CURE™ For an alternative medication, use the following together: MELAFIX and PIMAFIX	 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. 	Dactylogyrus and Gyrodactylus are parasitic worms, commonly called flukes, that attack fins, skin and especially gills of fish. Parasitic worms are frequently found on newly imported fish. The worms attach to the skin of fish via hooks, where they can feed on blood and body fluids. Secondary bacterial or fungal infections may occur following infestation by either of these parasites.
Hole-In-The-Head Disease (Hexamita)	GENERAL CURE™	 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. 	Hexamita and/or Spironucleus parasites infect the intestinal tract of many tropical fish, especially cichlids.
Dropsy and Malawi Bloat	For an alternative medication, select one of the following treatments: FURAN-2 or TRIPLE SULFA or E.M. ERYTHROMYCIN or T.C. TETRACYCLINE.	 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. 	Internal Aeromonas bacterial infections most commonly cause this disease. Viral and internal parasitic pathogens (Myxobolus cerebralis) have also been indicated, but are untreatable. symptoms.
	For an alternative medication, select one of the following treatments: PIMAFIX or FURAN-2 or TRIPLE SULFA	• Fish show blood streaks in the fins and body.	Pseudomonas, Aeromonas or Streptococcus bacterial species most commonly cause these symptoms.

or E.M. ERYTHROMYCIN or

T.C. TETRACYCLINE.

Bacterial Hemorrhagic

Septicemia

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SUGGESTED APPEARANCE CAUSATIVE AGENT TREATMENT MELAFIX® Bacterial pathogens include Pseudomonas, Eyes develop a whitish haze and/or protrude from the head. Mycobacterium or Streptococcus. Parasitic pathogens For an alternative medication. • Hazy or slimy patches appear on the bodies of fish. include Ichthyobodo, Trichodina and Chilodonella. select one of the following treatments: • If infested with parasites, fish may scratch on objects in the See Subclinical Parasitic Infection below, if fish are PIMAFIX or FURAN-2 or aquarium and exhibit rapid breathing. scratchina. TRIPLE SULFA or E.M. ERYTHROMYCIN or Eve Cloud, T.C. TETRACYCLINE. Pop Eye, & Body Slime Ich, a protozoan parasite, also known as white spot • Early symptoms of this infection in fish include darting in disease, is caused by the external parasite the aquarium and scratching against the gravel and Ichthyophthirius multifiliis. This microscopic parasite ornaments. has a multi-staged life cycle and is invisible during its **SUPER ICK CURE™** Fish exhibit labored breathing and may remain at the theront stage. Theronts burrow into gill and skin water's surface, near filters and aeration devices. tissue, causing severe electrolyte loss and gill damage White spots may or may not be visible on fish. and prompting secondary bacterial and/or fungal (Ichthyophthirius) infections. Trichodina, Ichthyobodo, and Chilodonella are protozoan parasites that infect the skin and gills of fish. These parasites have a multi-stage life cycle, • Fish may scratch on objects in the aquarium. SUPER ICK CURE™ similar to Ich, and are often microscopic. They burrow Slimy skin may develop on fish and fins may be clamped. into gill and skin tissue, causing severe electrolyte loss Labored breathing may be observed. and gill damage and prompting secondary bacterial Subclinical and/or fungal infections. **Parasitic Infestation MELAFIX®** For an alternative medication. Aeromonas species most commonly cause these Fish exhibit open red sores on the body. select one of the following treatments: symptoms.



Mouth Fungus -

Saddleback Disease

MELAFIX® or PIMAFIX®

PIMAFIX or FURAN-2 or TRIPLE SULFA or E.M. ERYTHROMYCIN or T.C. TETRACYCLINE.

For an alternative medication, select one of the following treatments: FURAN-2 or TRIPLE SULFA or E.M. ERYTHROMYCIN or T.C. TETRACYCLINE.

- 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.

Flavobacterium columnaris is a common bacterium responsible for this disease.



MELAFIX®

For an alternative medication, select one of the following treatments: PIMAFIX or FURAN-2 or TRIPLE SULFA or E.M. ERYTHROMYCIN or T.C. TETRACYCLINE.

- 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.

This bacterial disease can be caused by many pathogens such as *Pseudomonas* and *Mycobacterium* species





Note: At times, more than one medication is needed to treat bacterial infections. This is because, without identifying the species of bacteria, the most effective treatment can be difficult to determine. So, if the first product listed under suggested treatment is ineffective, it is recommended to try the other products in the order listed.