

## Getting Rid of Ich on Fish and Aquariums

**White spot disease, or ich, is caused by infestations of the parasite *Ichthyophthirius multifiliis* on fish.**

*By Stephen M. Meyer*

Q. I have a 55-gallon goldfish aquarium — or at least I had one. I had two beautiful orandas, two bubble-eyes and one lionhead. About a month ago, some of them began to show white spots like salt specks on their skin. They sometimes darted around the aquarium, rubbing against things. Then, they got quiet and died soon after.

The guy at the pet store said it was ich. I used the antibiotic tablets he sold me, but they did not seem to help my goldfish at all. I want to start over, but first I need to disinfect my freshwater aquarium. I was told to use chlorine bleach and to scrub everything: glass, ornaments and gravel. When will it be safe to put fish back in it?

A. It sounds like ich to me, too. Often called white spot disease (because the parasites on the skin look like white spots), it is caused by infestations of the parasite *Ichthyophthirius multifiliis*.

Before I describe how to disinfect your freshwater aquarium, I want to help you understand a bit about this parasite and how it becomes a problem. Ich is one of those fish parasites that is always present on goldfish to some small degree, and it is ubiquitous to the fish aquarium environment. Given a fish aquarium with five or six fish, I can always find a few individual ich parasites. Healthy goldfish can easily keep these organisms under control, so they do not become a disease problem.

However, when goldfish health begins to decline (that is, when they get stressed by poor water conditions, overcrowding or poor nutrition), their ability to control ich declines quickly, and the parasite multiplies. In an unhealthy aquarium — and especially in an aquarium where one or more fish are especially weak - the parasite population will explode and infect all the fish.

Thus, before getting any new fish, you need to figure out what went wrong in this aquarium. Was the pH outside the nominal range of 6.5 to 7.8? Were there ambient levels of ammonia and/or nitrite in the water? Was there insufficient aeration? Is there chlorine in your water? Find out why your goldfish were so weak and susceptible to ich before you add new fish.

You can use chlorine bleach to disinfect everything, but it will also destroy the biological filter in your aquarium. Then you will have to restart the nitrogen cycle, and either wait two months until the aquarium stabilizes or sacrifice more fish to ammonia and nitrite and risk rekindling an ich outbreak all over again.

There is a better way. Empty the aquarium of fish. Drain the aquarium of water and refill it. Restart the filter and add a little household ammonia to feed the biological filter — just enough to reach 0.5 ppm using an ammonia test kit. Raise the fish aquarium water temperature to 75 degrees Fahrenheit. Let the aquarium run for about 10 days. If there are ich parasites still in the aquarium, they will be unable to find a host and will die. Similarly, any eggs will hatch and the parasites will die off. End of story.

You can add new fish after the incubation time passes. First, completely change the water again. Test pH, ammonia and nitrite. Return the water temperature to normal.

Before bringing new fish home, examine them with a magnifying lens while they are in a plastic bag to be sure they are not already infested with ich. Do not buy fish that are listless, float in odd ways or have visible disease signs.

After you add the new fish to the aquarium, use a malachite green-formalin parasiticide to treat the aquarium as per the instructions, which should recommend three successive treatments three days apart. Essentially, your aquarium is serving as a quarantine aquarium.

Keep testing the water every other day for a week, then once weekly. If you maintain healthy aquarium water conditions, you should not have an ich problem again.