NONINFECTIOUS DISEASES

3 types of basic poisoning in aquariums

1) SILICONE POISONING: There are two types of silicon; normal silicone and aquarium silicon
Normal silicon is preferred due to inaccuracy or cheapness in aquarium manufacturing.
gases leaking from silicon affected by water temperature are slowly absorbed from the gills

Fish eat cuts within 1-2 days
motion decreases, scales and fins melts
When death approaches the scales are very pale and thoroughly melted, raking fishes dragged in aquarium

Fish are immediately taken to a clean aquarium or a container

Buy a new aquarium

If the old one is used; silicone is scraped, residues are removed with acetone

2) Ammonium intoxication:

Excess NH4 accumulation in aquarium water

Reasons ; overfeeding, insufficient ventilation, insufficient filtration, insufficient and long-periodic water exchange, no dip cleaning

NH4 accumulated in the bottom because it is heavier than water
The upper limit of ammonium in water is 1 ppm per liter
NH4 value should be lower if water temperature and pH are high

WATER DARK YELLOW

Fishes appear to breathe difficult on the water surface, the mouth is constantly open unconscious, does not react, there is no interest, suddenly sinking to the bottom of the water then suddenly going out to the surface of the water, gills more running, eyes and skin color dark

No treatment. Measures to be taken:

1) Fishes are taken to a clean aquarium

2) If this is not done or cannot be done, 70% of the water is immediately changed with clear water

3) Increase the dose of ventilation

4)***Using chemicals which is lowered ammonium, nitrite, nitrate levels !!!!***

This application is suspicion. This only provides an instant reduction the quantity of NH4

Significant number of fish is likely lossed

3) Nitrite and nitrate poisoning:

No nitrite and nitrate levels can be achieved in aquariums at any time
3.3 mg nitrate per liter of water (NO2) is considered the top level.
Nitrite, nitrate and ammonia levels are measured with kits in the aquarium.

Reasons for the increase of these substances in water cause ammonium poisoning reasons are almost the same.

Fish show similar symptoms in this poisoning. However, if aquariums are used for a long time, the chemical in water is more nitrate than ammonium.

The probability of rescue fishs is higher than that of ammonium poisoning.

The water should be changed at least 50%, followed by a 20-30% water change every 2-3 days for 2-3 weeks.
The drug should not be used during this period unless necessary.
Food quality is kept high.
It takes about 3 weeks for the undead fish to reach their health.

NEW AQUARIUM SYNDROME

New tank syndrome happens when the levels of ammonia and nitrites rise too high, harming fish. Often, this happens with a new tank because the filter hasn't developed the proper bacteria to deal with the ammonia and nitrites

Also known as the "break in cycle," the cause of the high levels of ammonia in a new tank are due to the lack of beneficial bacteria in the water — bacteria that keep the water levels safe by breaking down ammonia and nitrite into harmless nitrogen compounds. In a newly set up tank, these bacteria have not a chance to establish, allowing the ammonia and nitrite levels to quickly become toxic for the fish living in the water. This usually occurs in tanks that are just 1 to 20 days old, and maybe longer, since it takes a few weeks for the bacteria to establish themselves in enough quantity to keep up with the amount of waste the fish are producing.

This is not limited to new tanks, of course. Some other reasons for a sudden increase in ammonia levels include:

- Overfeeding of fish
- Overstocking of fish
- Improper dechlorination of water containing chloramines (i.e., sodium thiosulfate can create a reaction which releases ammonia)
- A cleaning that is too thorough
- Change of old gravel to new gravel
- Sudden changes in water temperature

Prevention

The key to preventing new tank syndrome is to allow the new water conditions to cycle through the nitrogen cycle before adding fish. Of course, the cycle cannot even begin until fish have been added to the water, so it is not helpful to allow the aquarium to sit for a few weeks before adding the fish. It is only through the cycle of waste and establishment of beneficial bacteria that will begin the cycle. Using a few "starter fish," to begin the new aquarium — hardy species of fish that are less susceptible to harm from ammonia levels — before adding any new fish will set the cycle in progress. You can then determine the progress of the cycle by checking the water chemistry over the course of about 4-6 weeks.

Some owners have also found it helpful to add already established gravel from an older tank to help speed up the process. If you do not have an already established aquarium from which you can take gravel, the handler that you will be buying your starter fish from may be able to help you with a sampling of gravel that the fish have been living in. It is not wise to change the water until the cycle has completed.

You can also control ammonia levels by avoiding overfeeding, since uneaten food will contribute to organic debris. Perform regular pH tests on the water throughout the initial process will help you to track the progress of the cycle and make changes accordingly, so that you can determine when to safely add new fish to your aquarium. Your tank will be cycled once you can measure nitrates in the water and ammonia and nitrite levels are at zero

DROPSY (bloating diaese) It is a septome.

Various causes have been used to describe the swelling of the fish

The body swells from the side, the appearance of the fish resembles the pine cone from the front

Etiology: not a single cause, but a combination of many factors

bacterial - viral internal organ diseases (kidney, liver)

endo parasites - fungal infections

internal organ cancers

degradation of the chemical environment of water

increased nitrite in water

accumulation of feed-waste in water

stress

Symptoms:

swollen fish continue to feed
very sick or weak fish may start dropsy after some time
scales open, straighten
increased number of breaths, breathing becomes harder
mouth open
color opening, bottoming or cornering
death

Treatment:

rarely spontaneous self improvement
the amount of feed in fish is reduced
no feed changes
pellet-dry - flake feeds are wetted in aquarium water
vitamin C supplement is made
antibiotic feeds are wetted and after given
metronidazole 1 tablet / 50 lt, 50% of water changes after 24 hours,

If the same dose is repeated, 3 days is expected to swelling does not descend and same dose is repeated.

Application of Epson salt ($MgSO_4$); more dropsy and bloat is also used

It is mainly used in fish that is swollen and not feed. There are problems in the stomach and digestion system.
Application is made in quarantine aquarium with air stone

1 - 2 tablespoons of epson salt / 40 lt
after 1-2 days repeated if no result is obtained

$MgSO_4$ 1/8 teaspoon / 5 gallon water, this dose in small aquariums divided into 5 and 1 gallon of water

The ventilation should be kept optimal during the treatment, water cleaning is very important water change should be done more than usual

If antibiotics are to be used; wide spectrum preferred

In protection; tubifex feed is not given aquarium not used (salt changes the chemistry water, the mucus layer on the skin damage, difficult to swim, frequent use of salt harmful to the kidneys