

# The Top 10 Mistakes Fish Owners Make

If you're guilty of making these mistakes, don't worry! You're here to learn and we're here to help. At Aquatic Veterinary Services, fish are treated like family and we want all pet fish owners to have all the skills they need to give your fish long and happy lives.

## **Our Top 10 Mistakes:**

10. Lack of Planning
9. Adding Fish Too Early
8. Worrying Too Much About Algae
7. Feeding Your Fish Too Much
6. Not Storing Fish Food Properly
5. Not Understanding Filtration
4. Not Testing Your Water
3. Relying Too Much on Internet Searches
2. Not Doing Your Regular Maintenance
1. Not Asking For Help

# The #10 Mistake – Lack of Planning

Unlike purchasing a cat or a dog, usually adding a fish tank is a spur of the moment decision. Your kids have been begging you for a puppy or a kitten and you go with a smart compromise – A FISH! Well, I'm very sorry to tell you that fish can be just as much trouble as a cat or dog. Yes, they don't need regular walks and won't leave "surprises" in your bed, but they require regular care just like any other pet. BEFORE you go out and buy the new tank, **make a plan**.

**How big of a tank do you think you can manage?** The size of the tank you plan on will determine what species of fish you can have. *If you can go big – GO BIG!* The more water you have and the fewer fish, the less stressful the first few months will be. Once you know how big a tank you want, does the item of furniture you are planning on setting it support the weight of the tank? (*Remember: 1 gallon of water = 8.34 lbs or 3.78 kg*) This is not the time to show off that antique table. Fish tanks are wet and any item a tank sits on WILL GET WET. Wood is probably not a good idea unless its sealed.

Got your tank size and a place to put it? GREAT! Here's the rest of the checklist to include on your shopping list:

## Check List for New Tank

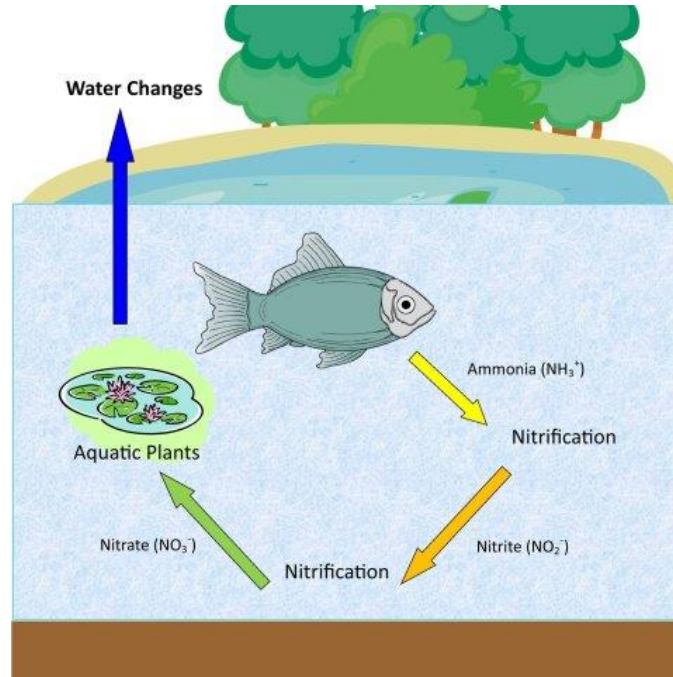
- \_\_\_\_\_ Fish tank of \_\_\_\_\_ gallons
- \_\_\_\_\_ Table that can hold \_\_\_\_\_ gallons fish tank (1 gallon of water = 3.78 kg or 8.34 lbs)
- \_\_\_\_\_ Lid for tank with light
- \_\_\_\_\_ Filter capable of volume 1.5x \_\_\_\_\_ gallons (canister or hang-on)
- \_\_\_\_\_ If tank is >30 gallons, consider adding aerator or powerhead to improve water flow
- \_\_\_\_\_ Substrate (gravel, rocks, sand, etc.)
- \_\_\_\_\_ Gravel vacuum
- \_\_\_\_\_ Decor items (must be FISH SAFE) – for bettas, stick with items that will not snag fins
- \_\_\_\_\_ Live plants, *if you like*. [Read this guide before you start with live plants](#). We do NOT recommend them for beginners.
- \_\_\_\_\_ Dechlorinator to treat tap water for chlorine AND chloramine
- \_\_\_\_\_ Bucket that can hold at least ~40% of your total water volume (or multiple buckets if necessary)
- \_\_\_\_\_ Scrub brush for decor
- \_\_\_\_\_ Algae scraper for acrylic or glass tank (they are DIFFERENT)
- \_\_\_\_\_ Heater – if your fish need it; did you do your research? Hint: goldfish do NOT, bettas absolutely DO
- \_\_\_\_\_ Thermometer – to make sure your heater is working properly
- \_\_\_\_\_ [Water quality test kit](#) – this is NOT optional
- \_\_\_\_\_ Fish food (enough for 6 months), you may want to try a variety to start to see what they like
- \_\_\_\_\_ Fish, obviously

Notice that we did NOT have bacterial starter, water conditioner other than dechlorinator or additional filter media. YOU DO NOT NEED IT!

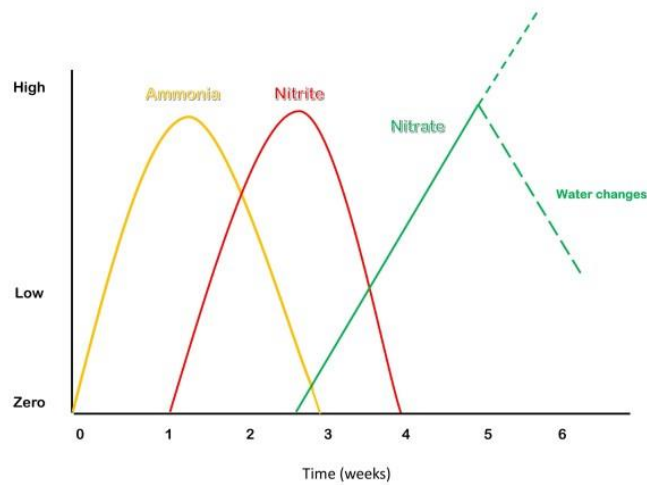
Planning your tank in advance takes 90% of the stress out of fish keeping. You are WAY ahead of most novice fish keepers if you make a plan and stick to it. And a lot of stores allow you to shop online and swing by to pick it up!

## The #9 Mistake – Adding Fish Too Early

You have a plan, you got your tank and all the additional items, so it's time to add the fish! But how many fish do you add? In what order do you add them? In the beginning, your biggest hurdle will be establishing your nitrogen cycle. This cycle is made up of commensal bacteria living in your substrate and biological filtration media (sponges, matting, bio balls, ceramic cubes etc). These helpful bacteria convert the primary fish waste of ammonia into nitrite and from there into nitrate. Ammonia and nitrite are highly toxic to fish, and can cause lethargy, loss of appetite and death.



When a tank is brand new, the bacteria have not been colonized. There are many commercial starters promising to “instantly start” your tank, but they are the aquatic equivalent to snake oil. Our office tested over half a dozen of these products with no decrease in time to conversion. ***You do NOT need to add these products to your tank***, they will come with the fish; they just take time to become established. It will take **4-6 weeks** for your tank to go through all the necessary steps to become established. If you follow your tank's progression with your water quality testing kit, you will yield a graph like this:



You will see spikes in ammonia, nitrite and then nitrate. When you see this ***DO NOT PANIC***. It is a normal occurrence in EVERY new fish tank. It is called “**New Tank Syndrome**” and there is no way around it unless you have another established tank with similar water parameter and inhabitants that you can steal some filter media from.

**The best way to combat New Tank Syndrome and avoid crashing your tank with a major ammonia spike is by starting with just a few fish in your new tank.** Start with one or two goldfish or 3-4 tropicals, like zebrafish or tetras, before your tank is established. Slowly increase your fish levels from there and you will never have an issue.

***Be patient!*** It is extra work, but I *guarantee* by following these steps, you will not lose a fish from New Tank Syndrome. Buy a test kit, know how to use it and don't panic when those spikes hit. ***By having fewer fish in a larger volume of water, you will produce a smaller, more tolerable spike, keeping your fish alive.***

## The #8 Mistake – Worrying Too Much About Algae

I'm very sorry to have to tell you that if you have fish in water, algae will grow. There is no way around it. Fish produce the perfect fertilizer for algae, nitrate. You may not be able to avoid it, but there are ways to mitigate it.

However, remind yourself that fish don't care about algae, people do. Just because your tank is a little bit green does NOT mean that you are a terrible fish parent. It means your tank is healthy! But this does not apply to a tank so thick with slimy green scum that you cannot even see your fish.

Algae is a single-celled plant-like organism that can replicate very quickly. It may clip together with similar cells to produce hair or string algae, or it may stay singularly suspended in solution. During the daylight hours, algae converts sunlight and carbon dioxide into oxygen and water, a process known as photosynthesis. However, once the sun goes down, the algae start to use the oxygen in the water to respire, converting oxygen back into carbon dioxide. This can produce respiratory acidosis, where the carbon dioxide levels start to drop the pH. In tanks that are very, very green, the algae can out-compete with fish for oxygen AND start to decrease your pH. As long as your KH or alkalinity is sufficient, your pH will not drop drastically. Having sufficient aeration in your tank will make sure there is plenty of oxygen to go around.

### ***So, how do you keep algae from getting out of control?***

- Keep up with your regular water changes. Algae uses nitrate as a food source, so by limiting your nitrates by doing regular water changes, you will keep your algae in check.
- Try to minimize direct sunlight on your tank. Not only will it keep your temperature from spiking, removing sunlight will help keep the algae from growing too quickly.
- Scrub your tank walls regularly. Once the algae is loosened and sent into the filter, it will die from lack of sunlight.
- Out-compete the algae with aquatic plants. Aquatic plants work the same as algae, just on a larger scale. For everything you want to know about aquatic plants, check out our webinar on [Plants in Fish Systems](#). They will not rectify the entire problem, but will give minor assistance.

### ***What should you NOT rely on?***

- Chemical additives are rampant on store shelves. These have NOT been tested on all species of fish. They are NOT controlled by any governing body.
- UV lights only catch particulates in suspension. They will have NO effect on any algae trapped to the sides of your tank. But they will help zap it if you scrub.

## The #7 Mistake – Feeding Your Fish Too Much

One of the more common “healthy” pet issues we see in all of veterinary medicine is obesity, and fish are no exception. They may have better control than your golden retriever, but overfeeding your fish can have more severe consequences than just rounder fish.

Unfortunately, there is no absolute calculation to tell you how much to feed your fish. It depends on their species, temperature, water quality, other stressors, the type of food, formulation and current disease processes. For cats and dogs, it all depends on body size and life stage. If you take any bag of cat or dog food and look at the back, it will tell you what life stage the food is intended for and what amount to feed for body weight. (This assumes that your pet is the correct weight for the body type and structure.) But when was the last time you weighed your pet fish? Fish should be fed based on body size, but we know this is an impossible task for most owners. Thankfully, fish are pretty good at determining when they are full. A bigger problem is what happens when there is too much food in the tank.

***So what should I do to ensure my fish are not overfed? We recommend using the Slow Sprinkle Method. It is very simple:***

1. Sprinkle a little bit of food into your tank. We recommend mixing it close to the filter return so all fish can get a fair share.
2. When all the food is eaten, sprinkle a little bit more. If the food is not completely consumed, WAIT.
3. Continue for 3-5 minutes or until the fish stop eating

**NOTE:** Some species, like betta fish, are not great at regulating their intake. Keep in mind that their stomachs are about the same size as their eyeballs. Only a few pellets once or twice a day is adequate!

### **Why does this method work?**

The biggest problem with overfeeding a fish tank is not just fat fish, but increased stress on your biological filtration. The breakdown of fish food, since it contains a lot of protein, causes an increase in the ammonia levels in your tank. Using this method makes sure that the food ends up in the fish, not the bottom of their tank. If you're unfamiliar with ammonia and the nitrogen cycle, [read this explanation](#).

For more information on fish food in general, [watch our webinar](#).

## The #6 Mistake – Not Storing Fish Food Properly

What is the best way to store any pet food? Rather than roll up the bag and toss it in the corner, all pet food should be kept in an airtight, opaque storage container in cooler temperatures of a pantry or closet. And fish food is no exception.

Also keep in mind that fish food starts to lose water-soluble vitamins, such as vitamin C, as soon as you open it. Within a few months, there is barely any available vitamin C left. (Sources [here](#), [here](#) and [here](#).) Vitamin loss can be prevented by properly storing your fish food. All fish food should be kept in an airtight container, in a cool place out of the sun.

### **Fish Flakes**

Due to their high surface to mass ratio, fish flakes lose vitamin C faster than any other fish food. If your fish can handle a pellet, switch them over. These days they come in very tiny sizes!

### **Fish Pellets**

Most of these products now come in light-proof, re-sealing pouches, which is great! Keep them in a cool place out of direct sunlight to keep them in good condition.

### **Koi Food**

Even though your koi live outside, your food should not! If it is not in a re-sealing bag, keep all food in an airtight container in a cool place, out of the sun.

Since the temperature of a koi pond can vary widely, make sure you are feeding a temperature-appropriate diet. Higher protein foods are fed with warmer water.

For more on fish nutrition, check out our [Fish Food Nutrition webinar](#).



# The #5 Mistake – Not Understanding Filtration

Mastering the ins and outs of filtration in aquatic systems can seem a daunting task for new owners, but we're going to make it SO EASY!! To start out, there are three types of filtration going on in your fish system:

- **Mechanical** (floss, sponges, pads) – These components remove particulate from your aquarium. They need to be cleaned regularly to maintain water flow rates throughout your aquarium.
- **Biological** (bioballs, ceramic media, strapping, floss, sponges, media bed) – These provide housing for your good bacteria that keep your [nitrogen cycle](#) running smoothly. They need to be cleaned carefully so you do not remove too many of them.
- **Chemical** (UV, carbon) – These components change the action of particulates in your water. UV lights kill algae and carbon will alter any chemical treatments added to your tank. *UV light has NO EFFECT on bacteria or parasites living on your fish.*

When you clean your tank, understanding what each part does will illustrate how to clean it. Mechanical filtration can be cleaned fairly thoroughly. Chemical filter components need to be replaced regularly for proper function. ***Biological filtration needs to be cleaned with old tank water and not until sparkling!***

[Watch our video on how to properly clean your fish tank and media.](#)

## Combo Filters

These filters come with a combination of filtration types, usually sponges (mechanical/biological), carbon (chemical) and zeolite (chemical – ammonia scrubber). You do not have to use all of the components! Our office just uses the sponges; carbon is not necessary and an ammonia-scrubber isn't needed for established, well-maintained systems.

## Floss Cartridges

These are the most useless filters in the aquarium hobby. They are not meant to last and hemorrhage money. Switch them out for a sturdy sponge that you [DO NOT need to replace every month](#). Only replace your filtration when it is about to fall apart.

## Pressurized Filter

This is the most common type of filtration used on outdoor fish ponds. These units contain many small plastic beads used to house good bacteria for ammonia conversion. They need to be [backwashed](#) on a weekly basis to make sure the media is not compacted. Once compacted, these units need to be cracked open and cleaned.

**To keep your fish happy and healthy, it is important that you do your maintenance regularly! Here's a handy checklist to make sure you do everything on a regular basis: [For Fish Tanks](#) and [For Koi Ponds](#)**

## The #4 Mistake – Not Testing Your Water

Ponder the following situation: you have two glasses before you. One is tap water and the other is hydrochloric acid.



They both “look clean,” but how do you know which one is safe to drink by looking at them? Which one would you put your fish into?

***It is impossible to tell if water is safe for fish by the look of it.***

Water that is safe for fish and dangerous for fish will look EXACTLY THE SAME. This is why we always test the water at all of our appointments and why all fish owners should do the same. Fish health is directly tied to certain water quality parameters. If you’re a regular reader, please, list them along with us:

- [Ammonia](#)
- [Nitrite](#)
- [Nitrate](#)
- [pH](#)
- [kH \(alkalinity\)](#)
- gH (total hardness)
- Oxygen
- Temperature
- Salinity (marine/brackish systems)

You don’t have to test all of these parameters all the time, but regular tests of AT LEAST ammonia, nitrite, nitrate, pH, kH and temperature are essential.

Test your water AT LEAST once a month. You will need the following tools:

- Liquid-based test kit, including ammonia, nitrite, nitrate, kH, and pH
- Reliable thermometer – floating, suction cup or infrared (not stick on!)

All of these tools are easily purchased at your local pet fish store or online.

Safe levels for fish will vary on the species. For koi, goldfish and most tropical, including bettas, you want your water within the following parameters (please keep in mind that this chart was made using the API kit parameters and are *general guidelines*):

<b>Parameter</b>	<b>Koi</b>	<b>Goldfish</b>	<b>Tropicals</b>
Ammonia	<0.25 mg/L	<0.25 mg/L	<0.25 mg/L
Nitrite	0 mg/L	0 mg/L	0 mg/L
Nitrate	<40 mg/L	<40 mg/L	varies
pH	6.5-9.0	6.5-9.0	varies
kH	>100 mg/L	>100 mg/L	>100 mg/L
Temperature	33-85F (1-29C)	33-85F (1-29C)	74-84F (23-28C)

As your fish systems progress, record your weekly/monthly readings and watch for any trends. How does your regular maintenance change your readings? **By keeping a close eye on your parameters, you can significantly improve the overall health of your fish.**

**Good water = happy, healthy fish.**

## The #3 Mistake – Relying Too Much on Internet Searches

The internet is a wonderful, magical place. Because if it's published on the internet, it must be true, right? Sorry to tell you, but Dr. Google does not have any sort of medical degree. Have you read all about the [magic of tiny green peas](#) and the dreaded [dropsy disease](#)? Sorry to tell you, but these are just internet fabrications. The veterinary community is partly at fault, having ignored the plight of fish owners for far too long.

**Enter Aquatic Veterinary Services!** *\*\*Wearing a cape, if a business could.\*\** Our mission is to give you the straight, well-researched facts about all things fishy. Does it cost you anything? **NOPE!** We have over 200 articles on different fish species, diseases, physiology, water quality, surgery and beyond in our [Fish Health 101 section](#). We have a [YouTube channel](#) dedicated to more in-depth information and webinars. Need to waste 10-20 minutes and want to learn something about fish? [Pick out a topic here.](#)

There is some good help on the internet, but always consider the source. What worked for one fish under certain conditions does not work for every fish. Disease does not progress the same in every situation. *Over the counter medications are not always what they say they are. **There are NO regulators checking up on fish medications on pet store shelves.***

If you need more help than our website can provide, call your local fish veterinarian. **NEVER** attempt treating or performing surgery on your fish or your friends/family pet fish. Visit the [American Association of Fish Veterinarians](#) to find a vet near you. If you are in California Bay Area and surrounding counties, we're here to help you directly. Call us at (831) 278-1081.

## The #2 Mistake – Not Doing Your Regular Maintenance

Fish are not maintenance free pets. Many owners think this when they first start, but some fish systems require the same care and cleaning as any other pet. Especially when you are first starting out, it is important to keep up with your regular scheduled cleaning. Maintaining a regular maintenance schedule for your aquarium will be of the most benefit to your fish by keeping your water quality within appropriate parameters.

Our best advice: add your regular maintenance to your TO DO list and make it a priority. Get the whole family involved and take the time to give your fish a happy, healthy home. Here is a [helpful checklist](#) for everything you need to do on a daily, weekly, monthly and yearly basis.

If you follow the above checklist, get the family involved and make fish care a priority, your fish will have a long, happy life. If you're confused or unsure the best way to clean your tank, watch our [Best Tank Cleaning Practices video](#).

# The #1 Mistake – Not Asking for Help

We've made it all the way to our #1 mistake new fish owners make: not asking for help when you're over your head. A new hobby can be very challenging and there's no shame in getting assistance if you're overwhelmed.

But, as we covered with [mistake #3](#), not all sources of help should be treated equally. Just because somebody wrote it on the internet, **does NOT make it true**. Cause and effect can be misinterpreted and hobbyists are known for corroborating evidence that is not connected. Here is a common example:

Owner A buys medication from store B, which claims it can cure their fish of disease C. The medication, be it anti-parasitic, anti-bacterial or anti-fungal, requires multiple doses with multiple water changes in between. Owner A uses medication as prescribed and the fish gets better. Since 90% of our clinical cases are secondary to poor water quality, it is more likely the increased water changes cured the fish, NOT THE "MEDICATION."

But, you see this on the internet and think it must work for your fish with the same issue. But your water might be different with a different species of fish and a different pathogen (bacterial, parasite, fungus). All that you can see is how your fish is behaving, which sounds similar to Owner A.

Too many owners reach straight for the treatment without a diagnosis. You just want to make your fish healthy – **NOW**. [Your water looks fine, so it can't be the water](#). And this is where many fish owners fall out of the hobby. They try X number of medications, read all they can on the internet, but without a diagnosis, the fish will eventually perish.

## ***What about calling your aquatic veterinarian?***

We understand it is a foreign concept for many. One of our colleagues starts many of his professional talks by asking the following question:

If you walk up to 100 random people on the street and ask them, "my fish is sick. What do I do?" What are the top 3 responses?

1. **Dr. Google**
2. **The pet store**
3. **Flush it**

No where in that list is "call your veterinarian." Well, it's time to not only add it to the list, but make it the **ONLY** response. If you need help with your fish, [CALL AN AQUATIC VETERINARIAN](#). ([Click link for a vet near you.](#)) If you have a veterinarian for your cat/dog/horse/etc, see if they are interested in helping. They can directly consult with an out-of-state aquatic veterinarian to help your fish. **Have them call us!** If you are in California, **CALL US** and we will help you! If you want to pay for our veterinarian's license in a state we do not cover, **CALL US**. If you are not in your state and need help, **CALL US**.

We cannot guarantee we'll be able to give you more than basic husbandry help, but **WE WILL HELP YOU AS BEST WE CAN.**

***But it's "only a fish?" [Why should I spend hundreds of dollars on a fish that only cost a few cents?](#)***

Whenever you adopt a pet, no matter the species, you are responsible for their health and well-being. Fish deserve the same care and consideration as any of your other pets. Yes, an aquatic veterinarian will likely cost a little more since this is a specialty within the veterinarian field and many are mobile veterinarians, and you will pay more for the convenience of an in-home visit. For more information on our pricing, please [visit our Pricing Page](#).