

Several factors influence the effectiveness of activated charcoal. The pore size and distribution varies depending on the source of the carbon and the manufacturing process. Large organic molecules are absorbed better than smaller ones. Adsorption tends to increase as pH and temperature decrease. Contaminants are also removed more effectively if they are in contact with the [activated charcoal](#) for a longer time, so flow rate through the charcoal affects filtration.

Activated charcoal is a supplement that is sold over-the-counter to treat several conditions including excess gas, high cholesterol, and preventing hangovers. Medicinal activated charcoal is also used in emergency medicine to treat certain types of poisoning. Activated charcoal is designed for medicinal use, and is not the same as the charcoal that is used in products that remove pet odors and in fish tank filters. Activated charcoal works to treat poisoning because it binds with some poisonous agents and helps them pass through the body without being absorbed. When activated charcoal is prescribed by a physician in this way it may be taken in several doses. However, as a supplement, [activated charcoal](#) has not been shown to be effective in treating other conditions such as excess gas, cholesterol or hangovers. The side effects from activated charcoal include constipation and black stools. Activated charcoal may also prevent some drugs from being absorbed by the body, therefore it should not be taken at the same time as other medications.

Instructions

1. Remove the filter from the tank if possible after turning off the electrical supply and shutting off any water shut-off valves depending on filter type.
2. Carry the filter over to a sink or tub, moving carefully so no dirty aquarium water spills out onto carpets, rugs or other flooring.
3. Remove the loose charcoal or charcoal cartridge from the filter, depending on filter type.
4. Place the carbon in the mesh kitchen strainer and run warm water through the charcoal to rinse out impurities if using loose charcoal. If using charcoal cartridges, allow warm tap water to run through the cartridge for several minutes.
5. Hold the rinsed charcoal up near your ear. If you hear a sort of subtle crackling or popping noise emanating from the charcoal, place it back into the filter. If you hear nothing, the charcoal is no longer activated and should be replaced with fresh carbon.

[Activated charcoal](#) provides important chemical filtration of aquarium water, removing harmful toxins such as chlorine and heavy metals that sicken or kill pet fish. Over time, however, charcoal reaches its limits of what it can absorb, making necessary the cleaning or replacing of the carbon. Proper preparation--and knowing how to use your ears when removing the charcoal are key to successful cleaning or replacing of activated carbon in aquarium filters.