Using contaminated tap water has no doubt been a concern for many users of Enagic's SD501. The SD501 is one of the best machines invented ever. But it's an ionizer, not a filter! It’s our responsibility to make sure we know what’s in our water supply and use the proper filters so we give the best water possible to our family, friends and prospects.

The carbon filter in the SD501 does remove the chlorine, organic compounds, and some metals, but it’s insufficient to remove other contaminants and chemicals. Fluoride is added to our water systems. Apparently, the positive ions of fluoride are expelled by the electrolysis through the gray secondary hose. But I’m not sure how much of it is handled and I’d rather have it removed by a pre-filter so I can use the beauty water (and the Kangen water!) without worries that it has fluoride in it.

Also, more and more cities are now switching from chlorine to chloramines as a disinfectant. Trihalomethanes or THMs, a potential cancer-causing substance, is a byproduct of chlorine when it reacts with organic compounds such as decaying vegetation. But chlorine is very easy to remove with a simple carbon filter.

Chloramines are more stable and remain in the system longer, therefore keeping the bacteria handled all the way to our taps. But it’s not necessarily better for our health than chlorine. There’s a lot of data about it on the Internet, most of it alarming. It’s difficult to evaluate how toxic it is as no long term study has been done yet. What has been proven is that it’s very dangerous if not fatal for dialysis patients. Regardless, most of us know that mixing chlorine and ammonia produces a noxious nerve gas. Unfortunately, the ammonium in the chloramines is much more difficult and expensive to filter out than chlorine.

Besides, chloramines are extremely detrimental to the environment, and whether you manage to filter it out of your drinking water or not, the chloramines in the waste water kill fish and other creatures that live in the water, so it’s not a bad idea to educate yourself and contact your representatives about it. There are safer and more efficient ways to disinfect the water. Ozone, for example, is one of the cleanest, safest, most efficient bactericide on planet Earth with no carcinogenic side effects. Europe, and France in particular, use this system, which has the added benefit to get rid of any bad odors and tastes created by chlorine and other elements.

After doing extensive research on filters, I found an excellent resource: The Water Exchange in Michigan, http://www.thewaterexchange.net

The manager of this company, Howard Berenbon, has been researching and selling filters for over 10 years. His prices are very reasonable. He’s been extremely helpful, has guided me through the jungle of filter-land and has patiently replied to a million questions. We found the best and cheapest way to handle various contaminants, metals etc. as well as fluoride and chloramines while at the same time preserving the minerals in the water needed for the electrolysis to produce Kangen water.
The filter we chose and that Howard adapted to the SD501 is a counter-top, 3-stage filter (see below for photo and details.) Howard worked out how to easily hook it up to the SD501 ionizer and unhook it just as easily in case you want to travel with your ionizer. It can also be installed as an under-the-counter unit.

This triple filter is composed of a carbon filter for chloramines, a fluoride filter, and a KDF/GAC filter.

Note: KDF stands for “Kinetic Degradation Fluxion”, which is a fancy name for one of the newest patented technologies for water treatment. KDF® is a high-purity copper and zinc alloy that eliminates contaminants by utilizing electrochemical oxidation reduction (more commonly known as "redox"). When used in conjunction with carbon filtration, KDF forms an environment which is highly effective at killing or disabling most microorganisms.

The carbon filter is catalytic carbon, which is specially treated bituminous coal based carbon for chloramines removal, the fluoride filter is activated alumina, the KDF filter is made of copper and zinc and the GAC is granulated Activated Carbon (coconut shell carbon, the best grade.) Once the fluoride is removed, the KDF/GAC filters remove the aluminum used in the fluoride filter.

The filters handle organics (KDF doesn’t permit bacterial growth and removes inorganic matter such as heavy metals) and all of the chlorine. They remove between 80 and 90% of the fluoride (no filter handles it more than that unfortunately, even reverse osmosis) and 90% of the chloramines—odor and taste. There will be some ammonia residue. It’s very difficult to totally remove the ammonia which is one of the components of chloramines.

The only thing that will remove most of the ammonia (but not 100%) is a whole house system. The Water Exchange has one which uses an additive but it’s more expensive than the 3-stage filter ($1,150 and has an extended warranty of 10 years but can last longer. The filters have to be changed every 4 years and cost between $240 and $450.)

All these filters have been duly tested and their efficiency has been proven.

Remains one unknown: The pharmaceuticals rejected in the waste water. How much of it finds its way into the tap water supply? To test for them, one should know the chemical components of every single one of them—an impossible task; all the more reason to make the world healthy as soon as possible so people quit their medications. But that’s not a reason to drink bottled water. We know that most bottled waters are contaminated as well as acidic, not to mention the chemicals from the plastic that leach into the water and the environmental disaster caused by plastic bottles. So it’s always best to drink Kangen water. The good news is, it seems that a good activated carbon filter can filter most of them out.

So we can’t entirely escape contamination of the water, unless we go and live in the Himalayas. And even there, traces of pollution can be found. The solution is to clean up the environment and we should all be involved in this to some extent. Let’s do it one step at a time. We can start with our own bodies: Do our best to filter out the majority of the contaminants and drink as much Kangen water as possible, because as we know, it cleans the cells thoroughly and the small
amounts of residue will most probably be eliminated with the acidic waste. We're seeing the proof of that with amazing results every day.

**Specific details of The Water Exchange triple filter set**
Size: 15” wide and 12” tall – Cost: $280.00 - Free shipping
Warranty: 5-year warranty for the housing, but can last up to 10 years.

**$5.00 discount on this filter and the whole-house filter with the following coupon code:** 108091465 for August 09, 109091465 for September, 110091465 for October etc. (the second and third number change every month. In January 2010, it will be 101101465, etc.)

![3-stage filter and tightening device](image)

3-stage filter and tightening device (Note: The casings look like they stand at an angle but this is an optical illusion: they are straight and aligned)

These filters easily hook up to the SD501 and the diverter on the tap with tubes and attachments provided with the filters.

**Replacement of the cartridges**
- Fluoride filter: $44.95 – every 3,000 gallons or once a year
- Carbon filter for Chloramines/Chlorine filter: $34.95 – every 3,000 gallons or once a year
- *KDF/GAC filter: $39.95- Every 12,000 gallons or every 3 years.

**Price Comparison:**
What you will mainly find on the market is single KDF filter cartridges that weigh 8 to 16 oz and last one year. The Water Exchange filter I recommend is a KDF/GAC, it weighs 2.25 lb: 1 lb of KDF, which is the zinc and copper, and 1.25 lb of GAC, which is coconut shell carbon. It’s good for 3 years and 12,000 gallons, and has also been tested to remove chlorine for up to 20,000 gallons. It sells for $39.95.

One KDF/GAC 1 year filter I found on a popular health and wellness site sells for $57 and another company sells their 10,000 gallon KDF/GAC filter for $49.95.

Free download at www.mykangentools.com