

The **guide** to testing your water

From our experts at SimplexHealth

Before we begin...

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For any health or medical issues consult with your trained health practitioner or doctor. For detailed information about drinking water, safe drinking water and how to certify water as safe for drinking, contact your water supplier or the relevant public body. The information contained within this book is a general guide and not a certified process, prescription and do not claim to make any health improvements or, in fact, any difference to your health in its own right. Health is a complicated jigsaw of many parts, of which water is only one.

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The gift of clean and safe water

An important thing you can do for your health and that of your family

This guide will give you advice about the safety of your drinking water – one of the potentially most important things in your household. Concern about the safety and quality of our drinking water has grown steadily in the past few years. Safe drinking water is **not only a problem in Third World countries** – it is also an issue in industrially developed countries. Lakes, rivers and groundwater are becoming more and more polluted through over-use and increasing environmental and industrial pollution. This puts a lot of pressure on our water cycle.

Water suppliers are doing a great job in cleaning up the water that comes into our homes, but many people don't realise that once water has left the water supplier it can become contaminated, either through damaged pipes or even within our homes. Bacteria can build up on tap or in storage tanks, copper or lead pipes can leak through corrosion. Most contaminants cannot be detected using smell, taste or look. Even low-level exposure can, over time, cause severe illnesses.

Clean water is important for your health and that of your family.

Ensure that your home drinking water is safe – for your family's long term health and safety.

This guide will give you detailed information about what to look out for, when and how often to test your water, what to do if you suspect contaminants and how to understand the results. It also contains top tips on how to keep the water in your home safe.

Not everyone is an expert at testing water and understanding the results. That's why we have developed this short and simple booklet to give you a good starting point.

Now, let's get into the guide!



Some facts to show how important clean drinking water is

1 In 2006, water borne diseases were estimated to cause 1.8million deaths each year worldwide (1).

In the WHO European Region, 330'000 cases of water-related disease are reported on average each year (2).

Extreme weather events are growing in frequency and intensity, and affect both the quantity and quality of water resources, raising concern among policy-makers and citizens alike. The number of extreme events in Europe increased by 65% between 1998 and 2007 (2).

2 **Chlorine**, used for disinfection can react with organic matter, to form cancer-causing trihalomethanes.

3 Pipes can leach **lead**, which causes a wide variety of developmental and neurological problems, especially in babies and infants. In the US about 1million children under the age of six have blood lead levels exceeding the level of concern.

4 **Pesticides** have been discovered in every large watershed in the US and in a large percentage of groundwater wells.

5 When animal or human wastes or fertilisers make contact with water, they become **nitrates and nitrites**. Blue Baby syndrome, a lethal form of nitrate and nitrite poisoning, can strike infants exposed to contaminated water.

Though most people depend on their local water utility to provide a clean and safe water supply, contaminants can also be caused by other sources like lead pipes or bacteria build-up. Even if you don't drink your tap water, chances are you cook, bathe and brush your teeth with it ... potentially allowing toxins into your system.

What are the commonly found elements in water?

- Pb** **Lead** can cause developmental harm, neurological and kidney damage, especially young children are at risk
- N** **Nitrates and Nitrites** from fertilisers and animal wastes, can cause developmental problems
- E.coli** **Bacteria** strains of e.coli can cause serious illness or death
- Cl** **Chlorine** used for disinfection, unpleasant taste or smell
- pH** **pH** can cause plumbing damage and lead leaching
- Hd** **Hardness** causes lime scale and higher detergent use
- Pe** **Pesticides** from agricultural uses, have been linked to increased cancer rates
- Fe** **Iron** can cause reddish brown stains, even in low concentration
- Cu** **Copper** high levels may cause gastrointestinal distress
- TA** **Total Alkalinity** is the capacity of water to neutralise acids from acidic pollution like rainfall or wastewater
- So** **Sulfate** is a colourless and odourless, naturally found in most waters and contributes to the total mineral content of water
- H₂S** **Hydrogen Sulfide** a flammable and corrosive gas present in some waters, produces an offensive “rotten egg” smell
- Cl** **Chloride** at high concentrations can cause a salty or unpleasant taste in water

For more detailed information about each contaminant, please visit our website:
www.simplexhealth.co.uk/free-guides-cms-38.html

Unusual colour, smell and taste of your water

A changed appearance of water can be an indication for unwanted elements in your water. It is generally recommended to test the water in your home regularly, as well as any new home or rented property. Although our drinking water quality is very high when it leaves the water suppliers, contamination can also happen between the water treatment facility and your tap.

Visit page 9 to find the relevant water testing kit.

Colours

Blue or green colour: Test for copper, as blue or green stains are usually a sign of copper in your water supply. This could be from your water supply, corrosive water or from copper piping. Copper can cause staining of fixtures or laundry. Copper is regulated by the UK government with a recommended maximum contamination level of 2.0 mg/l. This level is low enough so that copper cannot be tasted (the taste threshold is about 5ppm). Copper could become a problem if it is higher than 30ppm in your water, with health effects including vomiting, diarrhoea, and gastrointestinal distress.

Red or brown colour: A red, brown or rusty colour could be caused by iron or manganese in your water. As a result, iron in water can cause stains in sinks and laundry. A test kit for iron is included in this test kit for the 13-in-One as well as 10-in-One Test Kit.

Brown colour: Rust (iron oxide) can temporarily give water a brown colour. Rust can be dislodged by a disturbance to a pipe, ie a change in speed or direction of water flow. Simply run the tap until the water clears.

Yellow Colour: This is rather rare and can happen when water passes through marshlands and then moves through peat soils. It is more commonly found in surface water supplies or shallow wells. The yellow colour may not be pleasing but it should initially not present a health hazard. Should you, however, be concerned about your water, then we always recommend an overall check of your water before consumption. Do not take any risks.

Cloudy white or foamy: Often caused by harmless tiny bubbles of air, which will clear when the water is left to stand. Air can enter water in the distribution system or it may come through a faulty fitting in the property, ie. through part of the tap.

Another source could be natural minerals found in water, which is called hardness. The white particles are more noticeable after the water has been heated. They are flakes of limescale, calcium carbonate, which have formed in the pipework or in the kettle and will settle from top to bottom. It is generally advised to test the level of hardness of your water to protect appliances.

Oily film: An oily film can form on the surface of boiled water. This could be an indication that galvanised iron pipes and fittings are in need of attention. This oily film has nothing to do with oil, but is a shimmering layer of very small and flat crystals of a zinc compound, which are formed and then float on the surface. As a short term measure flush the pipe before using the water and if the problem persists have your pipes checked.

Smells & Taste

Chlorine smell or taste: Chlorine has been used for hygiene purposes for over 100 years. Chlorine in water may be present in two forms, free and combined. Free chlorine does the hard work of killing bacteria and oxidising contaminants. When the free chlorine combines with contaminants, it becomes combined chlorine, or chloramines. In water, this form of chlorine has very little sanitising ability, and no oxidising ability. Total chlorine is just the sum of both combined chlorine and free chlorine.

If you find the smell unpleasant you could fill water in a jug, then put it in the fridge to cool down before consuming it as cold water loses the smell of chlorine. Always remember to throw away any unused water after 24 hours and clean the jug regularly.

Metallic taste: Corroding copper or zinc pipes may produce metallic tastes. Zinc imparts an undesirable astringent taste to water. Tests indicate that 5% of a population could distinguish between zinc-free water and water containing zinc at a level of 4mg/liter (as zinc sulfate). Water containing zinc at concentrations in the range 3–5 mg/liter also tends to appear opalescent and develops a greasy film when boiled. Test water for copper or Zinc.

Some systems have a high mineral concentration, giving a salty or soda taste. The risk of this happening is higher when water has a lower pH and is acid. Use the Hardness or Total Dissolved Solids (TDS) test kit to check.

Rotten egg odour: This is usually the result of decaying organic deposits. As water flows through these areas, hydrogen sulfide gas could be picked up, and the gas may be released into the air later. Hydrogen sulfide gas produces the rotten egg odour, can be corrosive to plumbing at high levels, and can tarnish silver rapidly. As little as 0.5ppm can be tasted in drinking water. The 13-in-One test kit for drinking water contains hydrogen sulfide tests or try individual Hydrogen Sulfide test strips.

Musty or earthy tastes or smells: These smells are usually a result of harmless organic matter. Bacteria can grow on grease or fibre washers used in the plumbing, especially if the pipework is warm and rarely has water flowing through it. Even very low amounts can cause unpleasant odours. Test water for bacteria. If the problem persists then cleaning and disinfecting the plumbing system is necessary.

Some elements in water can not be identified by colour, smell or taste. They may however, still be harmful during short or long term exposure. These can include Aluminium, Arsenic, Lead, Bacteria and Heavy Metals. It is important to regularly test water and make sure that drinking water in the home is safe.

Visit www.simplexhealth.co.uk for further advice and water testing kits

The benefits of testing your water

There are many reasons why you should test the water supply in your home or business:

- If our **water supply is private**, ie. comes from a well in your garden then routine well water tests should be carried out regularly
- If you have recurring incidents of **gastrointestinal illness** within your family
- **Pregnant women, babies and young children** are especially at risk from exposure to contaminants
- If you move to a **new property**
- If you suspect contamination ie. through **smell or discolouring**
- If water leaves **scaly residue** on plumbing and fixtures
- If **household appliances or water supply** equipment don't appear to be working properly or **wear rapidly**
- If **Health & Safety regulations** require that specific water tests are carried out regularly

Generally, it is recommended to test your water at least once a year, if not every six months.

In addition, certain factors can change over time and therefore tests should be carried out regularly:

- Hardness
- Chlorine
- Pesticides as well as Nitrates & Nitrites as levels may vary due to seasonal changes ie. in the intensity of agriculture
- Lead: test for lead at different times in a day as lead levels can vary depending on water usage (they are highest when water has been sitting in the pipe for a while)



How to test your water?

There are various ways to test your drinking water effectively:

Method 1 Use a home testing kit

Our SimplexHealth water test kits contain everything you need to find out simply and accurately if your water contains unsafe or undesirable levels of some of the most common contaminants and other elements.

For private water supplies like springs, wells, ground water or small streams use one of our screening tests:

- SimplexHealth Home Water Test Kit 13-in-One
- Watersafe® Well Water Test Kit 10-in-One
- SimplexHealth mini-Well Kit 6-in-One

For tap water use:

- SimplexHealth Home Water Test Kit 13-in-One
- Watersafe® City Water test kit 8-in-One

Benefits:

- They are a great way of obtaining an initial indication about dangerous levels of the potential key contaminants in your drinking water
- Easy to use – even for first-timers
- Immediate results
- No waiting for lab analysis and no extra fees
- Compare your results with EU & UK* – recommended levels

(*published by British Drinking Water Inspectorate DWI/ DEFRA)

These tests are ideal as a screening test and help to do an initial analysis of your water.

Method 2

For tap water: contact your local water supplier or water board for their recommendation and test methods.

For private water supplies: find an independent laboratory.

Testing carried out by professional laboratories usually requires you to take a sample and send it in for detailed analysis. This process may be more expensive and take more time.

Understanding the results of your Home Drinking Water Test Kit

Worldwide, there is a good overall agreement on the science behind the setting of these standards. Mostly, they are guided by worldwide research and the standards set by the World Health Organisation. The UK government has published a set of water quality standards for the key contaminants, which are very similar to the EU guidelines.

Record your water test results in our easy-to-use chart and compare them to the guidelines:

Element	Concentration or Value Maximum*	Your Result
Aluminium	200µg/l	
Alkalinity		
Arsenic	10µg/l	
Bacteria (E.coli) Coliform bacteria	none	
Free Chlorine		
Total Chlorine		
Chloride		
Copper	2.0 mg/l	
Hardness		
Hydrogen Sulfide		
Iron	200µg/l	
Lead	25µg/l (until 25th December 2013) 10µg/l (from 25th December 2013)	
Nitrate	50mg/l	
Nitrite	0.50mg/l	
Pesticides	0.5µg/l	
pH	between 6.5 and 9.5	
Sulfate		

The table above shows extracts of the water quality standards. Water testing kits for all elements listed above are available on www.simplexhealth.co.uk.

(*Source: British Drinking Water Inspectorate (DWI/ DEFRA). For more information go to <http://dwi.defra.gov.uk/consumers/advice-leaflets/standards.pdf>)

Quick Product Finder

Choose from our range of multi-pack water testing kits:

	Water Test Kit 13-in-One	Water Test Kit 10-in-One	Water Test Kit 8-in-One	Water Test Kit 6-in-One	Water Test Kit 5-in-One
Price for 1 kit	£27.99	£24.99	£19.99	£9.99	£13.99
Lead		1x test	1x test		
Pesticides		1x test	1x test		
Bacteria	1x test	1x test	1x test		
Nitrate	2x tests	1x test	1x test	2x tests	25x tests
Nitrite	2x tests	1x test	1x test	2x tests	25x tests
Hardness	2x tests	1x test	1x test	2x tests	25x tests
Total Chlorine	2x tests	1x test	1x test		
Free Chlorine	2x tests				
pH	2x tests	1x test	1x test	2x tests	25x tests
Total Alkalinity	2x tests			2x tests	25x tests
Iron	2x tests	1x test		2x tests	
Copper	2x tests	1x test			
Sulfate	2x tests				
Chloride	2x tests				
Hydrogen Sulfide	2x tests				

The SimplexHealth water test kits are:

- Easy to use with quick results
- Great screening test for regular tests of wells and other private water supplies
- Efficient performance tests for water purification & filters
- Fast indicators to detect causes for leaks, unusual odours or colours

Choose by Water Installation System:

Water Improvement System	Main Purpose	Water Testing Kit
Water Softener	Removing 'hardening' minerals like magnesium and calcium from water, which are often replaced with sodium ions	Hardness test kits
Ioniser	Ionising may also remove contaminants from water, the main purpose however is to raise the pH as part of an alkaline diet. It is also believed to improve the taste of food that is cooked in it.	pH & Alkalinity test kit
Reverse Osmosis (RO)	A RO systems usually uses one or more filters to filter organic compounds, like salt and natural minerals, and often also bacteria and disease-causing pathogens.	Total Dissolved Solids test kit
Biosandfilter	A filtering method designed to re-model natural water filter methods using different layers of sand and other sediments.	Multi-parameter kit like 13-in-One
Hot tubs, jacuzzi	For fun and enjoyment...	Bacteria test kit
Pools, Spas, Jacuzzi		Bromine or Free Chlorine and Total Chlorine testing kits (depending on test method used)
Water Coolers	Water coolers are a convenient way to offer fresh water in public places.	Bacteria test kit for water coolers

Choose from our range of individual Water Test Kits:

- Aluminium
- Arsenic
- Bacteria
- Bromine
- Chloride
- Copper
- Hardness
- Hydrogen Sulfide
- Lead
- Nitrate & Nitrite
- pH
- Total Dissolved Solids
- Total and Free Chlorine
- Various Heavy Metals
- Zinc
- ... and many more

Visit www.simplexhealth.co.uk for further information

Free shipping and quick despatch for all orders

**Please note that these water testing kits are screening tests and can not used to certify water as safe or unsafe for drinking.

What to do if the Drinking Water test kits identify unusual of contaminants?

Should your drinking water test outside the desired values on the previous page, then it is recommended to contact your local water supplier as soon as possible; or review your filtering system if you use water from a private source. Any form of consumption should be avoided, this is especially true for bacteria and metals contamination. It is always a good idea to ask a neighbour, to see if they have the same problem or if it is specific to your property. Damaged pipes, internal storage tanks or piping systems can also be causes for problems and it is useful to check whether the problem arises from the mains-fed cold tap (normally the kitchen tap) or via the storage system (check the bathroom tap).

Some simple actions can be taken immediately:

- **Lead:** Flush your pipes before drinking – the more time water has been sitting in the pipes the more lead it may contain. Only use cold water for drinking or cooking, especially for making baby formula. Hot water is likely to contain higher levels of lead. In the long term, look to replace any lead pipes. Also read our more detailed guide to **Lead in Drinking Water** on the following pages.
- **Hardness and high pH:** Invest in a water softener to reduce scaly residues and the amount of detergent required for washing clothes. But look out as essential minerals such as calcium and magnesium may be lost when the water is softened. In addition, most water softeners replace minerals with sodium which may have a negative effect on anyone who is on a sodium-restricted diet as well as babies who have a limited tolerance to sodium. Therefore, keep a separate unsoftened mains fed tap.
- **Chlorine:** Chlorine plays an important part in ensuring that water stays clean whilst it is being delivered to the home (sanitising effect). There is no legal limit or guide value on the levels of chlorine, the levels however should be kept as low as possible whilst ensuring the quality of the water. Should you notice a smell or taste of chlorine occasionally, then this could also be due to maintenance work. Homes which are nearer to the water treatment facility then may notice the presence of chlorine more. If you find the smell unpleasant you could fill water in a jug, then put it in the fridge to cool down before consuming it as cold water loses the smell of chlorine. Always remember to throw away any unused water after 24 hours and clean the jug regularly.
- **Bacteria:** If you have followed the test procedure correctly and the test result shows positive, then there is a high chance that there is some contamination of coliform bacteria in the water. E.coli is one type of coliform, but this may not necessarily be in water sample. A positive test result should be followed up by further investigations into the cause and consumption of water should be avoided immediately.

High quality water filters, ionisers and reverse osmosis machines can also be used as additional **water filtration system** and can contribute to removing some of the most common contaminants. Filters can either be separate and portable or plumbed into the mains supply.

Lead in Drinking Water

What are the potential sources for lead in drinking water?

High levels of lead in drinking water can be caused by a range of sources:

- The property has lead pipes
- The property has faucets or fittings made of brass which contains lead
- The property has copper pipes with lead based solder

Usually lead enters drinking water because of the corrosion, a reaction between the water and the lead pipe or solder. Lead levels can decrease as a building ages, because mineral deposits can form a coating on the inside of the pipes, this usually takes about 5 years. In the UK, lead pipes are most common in homes built before the 1970, they were often used to join a property to the public water supply. Even when the use of lead pipes was stopped, sometimes, lead based solder was used to join copper pipes in order to save money. It has been suggested, that even brass faucets and fitting may contain lead.

Why is lead potentially dangerous?

Lead is a toxic metal known to be harmful if inhaled or ingested. Once lead has entered the human body it is accumulated there; and only very slowly removed. Lead can cause serious damage to the brain, kidney, nervous system and red blood cells. The greatest risk, even at short-term exposure, exists for young children & pregnant women

How do I know if my water contains too much lead?

You should have your water tested for lead, especially when you see lead pipes or signs of corrosion. Lead pipes are of dull grey colour, which is soft enough so that it can easily be scratched with a key. Signs of corrosion are rusty coloured water, frequent leaks, stained dishes or laundry. If your home was built before 1970 the risk, that it may have lead pipes is higher.



What immediate steps can I take to reduce lead exposure?

From drinking water:

- Don't consume water, which has been sitting in the pipe for more than 6 hours, ie. overnight. Let the water run until it becomes as cold as it can get, one washing up bowl is usually enough. This should be done for every tap – a shower will not flush your kitchen tap. Flushing is important because the longer water is exposed to lead pipes or solder, the more lead it is likely to contain.
- Don't consume water from the hot tap because hot water dissolves more lead more quickly than cold water. Always use cold water to make baby formula.
- If you can, ie. have a private water supply, treat water to make it less corrosive, this should generally save money as it reduces damage to plumbing.
- There are a number of different filtering devices available on the market, their effectiveness can vary so make sure that you research your chosen product.
- In the long-term it is recommended to replace any lead pipes.

How to test for lead?

It is recommended to test water at different times of the day as the lead content can vary depending how often the pipes have been flushed. It is especially important, to test the first flow of water in the morning - when the water has been sitting in the pipe for at least two hours.

£10.99
free shipping
worldwide



Drinking Water Test Kit for Lead:

This common contaminant has been linked to learning disabilities, kidney damage, and muscle disorders. Get instant results within 10 minutes

For more detailed advice read our guide to lead in drinking water:

<http://www.simplexhealth.co.uk/testing-for-lead-in-water-cms-50.html>



Top Tips on how to keep the water in your home safe

- **Tap hygiene** – keep your taps always clean and make sure that food does not come in contact with your taps. Taps – if not cleaned properly – can be a breeding ground for bacteria and hence contaminate your water, which otherwise would have been clean. Clean the outside as well as the inside spout.
- **Unpleasant smell and taste of chlorine** – some people are more sensitive towards this. Put your tap water in the fridge as chilled water loses chlorine smell or taste.
- **Fit non-return valves** to hose pipes, dishwashers and washing machines so that water in flexible hoses cannot return into the mains supply.
- **Kettles**, particularly when new, **can cause unusual tasting hot drinks**. To check, boil water in a saucepan and compare the smell.
- If noticing unusual taste or smell or discolouration, you may also want to **check with your neighbours** to see if the problem is specific to your home.
- Internal storage tanks or piping systems can also be causes for problems and it is useful to **check whether the problem arises from the mains-fed cold tap** (normally the kitchen tap) **or via the storage system** (check the bathroom tap).
- **Check that your water tank** is in a good condition and covered with a close-fitting lid.
- **Always use an approved plumber** when doing any work in your home. They can give you more detailed advice on how to look after plumbing and water fittings in your home.

REMEMBER:

- 1 Always use freshly drawn cold water from the mains tap (usually the kitchen tap) for drinking or cooking.
- 2 Do not use hot water or water from your bathroom taps for drinking and cooking because it usually is not as fresh or as safe as water directly from the mains.
- 3 When water has not been used in the house for several hours (or days, ie. after a holiday), draw off a washing up bowl full of water first. This way you avoid drinking water, which has been sitting in your pipes for a long time. You don't need to waste any water, simply use it to water your houseplants or the garden.
- 4 If you notice a particularly bad or strong smell or taste, which makes your tap water unpalatable, or you notice a smell or taste, for the first time, which does not go away in a short time, then you should contact your water company immediately. Do not take any risks.

6 ways to get the best drinking water

Gravity Water Filters

By slowly letting the water drip through the internal filter these water purifiers remove potentially noxious elements found in tap water (bacteria, nitrates, chlorine, sulphates, heavy metals, chemicals...). The success rate of these 7 filtration stages (or 9 stages) is very impressive. They eliminate 98% of the harmful substances and many types of bacteria and microbes. Also increases the pH of the water which is ideal for a healthy body and good assimilation.

Features & Benefits

- Ideal for family and groups
- No electricity needed
- Provides clean and healthy water for drinking or cooking
- Removes nearly all toxic elements at up to 98%
- Easy to assemble
- Uses 7 or 9 stage filter to produce near 'Spring' Water
- A big saving over bottled water



Water Filter Jugs

A compact size filter which fits in your fridge. Comes complete with a 5-step filtration system removing most impurities and potentially harmful substances from tap water including calcium carbonate, common in hard water areas, which causes the build-up of lime scale in kitchen appliances. Reduces levels of herbicides, pesticides and chlorine by up to 80%.

Features & Benefits

- Fits in the fridge so keeps the water cool
- Provides clean and healthy water for drinking or cooking
- Good removal rate of toxins of up to 60% [not as effective as a gravity water filter]
- No assembly required
- Uses a 5 stage filter with fast flow
- Low price



Water Ionizers

Remove chlorine, chloramines, lead, bacteria, rust, arsenic and traces of pharmaceuticals from your tap water. Plus beneficial magnesium and calcium minerals are added along with an ionic charge that creates hydrogen rich, antioxidant water that is great tasting and silky smooth, as well as better for hydration and absorption of nutrients. Ranging in price and function, choose from an electric system to a more simple gravity powered version. Alkaline water, described as water with a value on the pH scale higher than 7 (7 is neutral), has increased in popularity in recent years due to rising awareness about its potential health benefits. Advocates of alkaline water tout its ability to help the body deal with chronic metabolic acidosis, a root cause of many adult degenerative bodily conditions. Acidosis is a result of a number of factors including poor diet, stress and environmental conditions

Features & Benefits

- Restructures the water and increases the pH up to 10
- Provides clean and healthy water for drinking or cooking
- High removal rate of toxins through filtration
- Removes acidic water during ionizing process
- Fitting can be done by pretty much anyone (no plumber needed)
- Prices vary heavily and generally the most costly water filtration system



Water Distillers

The only guaranteed way to get pure water is through steam distillation using a water distiller. Distilled water is 99.8% pure which means it is purer than any bottled or tap water and purer than using any other type of filtration or purification method. With a distiller water is gently boiled to kill off viruses and bacteria. The steam produced is captured in a stainless steel coil where it cools to form pure water. This is then passes through an activated charcoal filter to remove any trace impurities. its then recommended to add minerals to the water, as during this process the water is purified to a point that it could be lacking in the essential minerals.

Features & Benefits

- Water is heated and then filtered through a carbon filter in the form of evaporation
- Provides 100% pure water
- Very High removal rate of toxins
- Needs minerals adding after the distillation process
- No assembly required



Reverse Osmosis

Reverse Osmosis is a technology that is used to remove the large majority (98%+) of contaminants from water. The reverse osmosis system works by pushing the water under pressure through a number of increasingly smaller filters and finally through a semi-permeable membrane essentially trapping all contaminants.

Removes Inorganic: Aluminum, Arsenic, Barium, Benzene, Cadmium, Calcium, Chloride, Chromium VI, Copper, Fluoride, Iron, Lead, Magnesium, Manganese, Mercury II, Nitrate, Potassium, Selenium IV, Silver, Sodium, Strontium, Sulphate, Total Dissolved Solids (TDS), Zinc.

Removes Organic: Adrazin, Aldrin, Chlorine, Chloroform, Dichlormethane, DOT, Endrin, Fluoranthene, Herbicides, Lindane, Methoxychlor, PCB, Perchloroethylene, Pesticides, Phenole, Tannic Acids, Toxaphene, Trichlorethylene, Trihalomethanes, V.O.C.'s.

Features & Benefits

- Water is filtered by pressure
- Works with properties with good water pressure
- Provides excellent filtration especially heavy metals
- Needs minerals adding after the distillation process
- Installation is required
- Filters range from 4 to 7 stages



pH Drops

These clever drops add an alkalisng boost to your water. A great way to give your drinking water additional minerals after filtration. Especially good for after the water has been distilled. These pH drops will restructure the water, enabling the water to hydrate the body more affectivity (similar to a water ionizer).



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References & Further Reading

Water UK – Looking After Water in Your Home

http://www.water.org.uk/Looking_after_water_in_your_home

The European Drinking Water Directive

http://ec.europa.eu/environment/water/water-drink/index_en.html

The Water Information System for Europe (WISE) <http://water.europa.eu/>

Drinking Water Inspectorate (England & Wales) which is set up to regulate public water supply companies in England and Wales

<http://dwi.defra.gov.uk/> or www.dwi.gov.uk

Other advice on plumbing:

Water Industry Approved Plumber Scheme (WIAPS) www.wras.co.uk/WIAPS

Water Regulations Advisory Scheme (WRAS) www.wras.co.uk

Institute of Plumbing and Heating Engineering www.iphe.org.uk

Advice on water filters and softeners:

British Water www.britishwater.co.uk

UK Water Treatment Association www.ukwta.org

References:

- (1) U.S. Centers for Disease Control and Prevention. Atlanta, GA. **“Safe Water System: A Low-Cost Technology for Safe Drinking Water.”** Fact Sheet, World Water Forum 4 Update. March 2006 http://www.cdc.gov/safewater/publications_pages/fact_sheets/WW4.pdf
- (2) World Health Organisation, Water and sanitation, facts and figures <http://www.euro.who.int/en/what-we-do/health-topics/environmental-health/water-and-sanitation/facts-and-figures>



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