

Twitter Thread by Gurman Kaur



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How most water purifying companies are misleading you with their cheap marketing tactics?

What is the truth about mineral water?

An eye-opening thread■:

Water is important and is one of the essential elements of human existence.

Although in the modern era misuse of water bodies and industrial development have polluted the water.

As a result, installing a water purifier has become a necessity rather than a luxury.

But with so many options available in the market with every brand claiming their technology to be the best, it becomes really hard to choose a water purifier.

■Let's briefly discuss the water purification technologies available in the Indian market:

1. REVERSE OSMOSIS (RO)

For most people, water purifier means RO.

It is a powerful technology which can purify the most contaminated, even salty water in just one go.

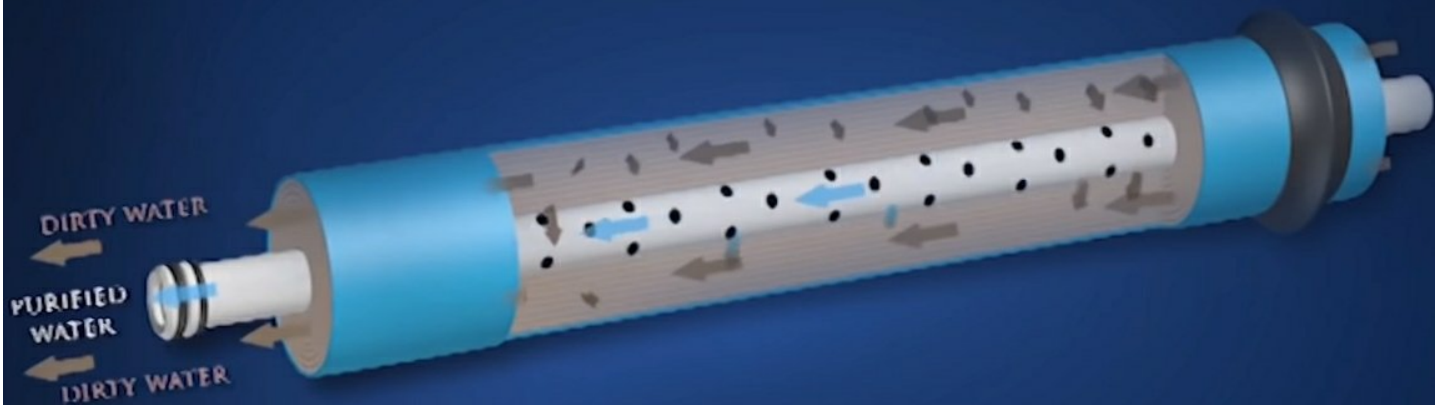
In RO system, water passes through a semi-permeable membrane of pore diameter 0.0001 micron.

This allows only water to pass through it.

This minute filtration removes 90% of impurities, heavy metals, microorganisms and minerals.

After this, what you get is pure, sweet, transparent and demineralised water.

IN RO SYSTEM, WATER PASSES UNDER HIGH PRESSURE THROUGH SEMI PERMEABLE MEMBRANE.



PORE DIAMETER = 0.0001 MICRON

2. NANO FILTRATION (NF)

NF and RO technologies work on similar principle, the only difference being pore size.

In NF the pore diameter is 0.001 microns.

It removes heavy metals, turbidity and chemicals but unlike RO, it doesn't change the mineral content of the water.

3. ULTRA FILTRATION (UF)

This technology filters water without the use of electricity.

In this, the water passes through a hollow fiber membrane with a pore size of 0.01 microns.

This also removes impurities without changing the mineral content of the water.

UF	NF	RO
➤ DOES NOT USE ELECTRICITY	➤ USES ELECTRICITY	➤ USES ELECTRICITY
➤ HOLLOW FIBRE	➤ MEMBRANE BASED	➤ MEMBRANE BASED
➤ PORE DIA = 0.01 MICRON	➤ PORE DIA = 0.001 MICRON	➤ PORE DIA = 0.0001 MICRON
➤ MINERALS ARE RETAINED	➤ MINERALS ARE RETAINED	➤ MINERALS ARE NOT RETAINED
➤ NOT IDEAL FOR HARD WATER	➤ REMOVES UPTO 60% HARDNESS OF WATER	➤ REMOVES UPTO 90% HARDNESS OF WATER
➤ NO WATER IS WASTED	➤ LITTLE WATER IS WASTED	➤ A LOT OF WATER GETS WASTED (3X)

UF is much cheaper but its downside is that it can't be used for very hard water.

4. UV CHAMBER

The above three technologies can remove the solid and chemical impurities but may not be able to kill the tiny microorganisms.

This is why water purifiers are recommended to use with UV chambers.

■How to determine which technology is best for you?

All you need is a TDS METER.

TDS stands for Total Dissolved Solids which is the measure of dissolved minerals, salts, metals and impurities in the water.



As TDS also includes the naturally occurring minerals in water like calcium, phosphorus, potassium, so, lower the TDS, better the water is not true as most people think.

According to Bureau of Indian Standards (BIS), water with TDS upto 500 is safe for human consumption.

TDS LEVEL	TYPE OF WATER PURIFIER
$\text{TDS} < 300$	UF + UV
$900 > \text{TDS} > 300$	NF + UV
$\text{TDS} > 900$	RO + UV

Ideal range of TDS lies between 100 to 300.

TDS between 300 to 500 is acceptable but TDS less than 100 is not ideal as it is devoid of most minerals.

Packaged water, which is said to be mineral water has a very low TDS.



Bisleri, TDS = 74, not bad

Kinley, TDS = 24, bad

Aquafina, TDS = 7, very bad

This is because most companies are giving it sweet, demineralized RO water because RO technology purifies hardest of waters.

Companies have to setup just 1 plant and they are ready to roll.



They don't care about the minerals in water.

RO is a phenomenal technology but was actually developed mainly for marines so that they can readily purify salt water and drink it.

RO was meant for survival not for everyday home consumption.



But most companies are just making money by creating a false fear among the people, a pure case of CAPITALISM.

Some companies actually sell mineral water like:

Qua, TDS = 180, good, Rs. 100

Himalaya, TDS = 237, very good, Rs. 59

Bisleri Vedika, TDS = 181, good, Rs.60



but at pocket ripping prices.

Once you have a TDS meter which you can buy easily for about Rs. 120 to Rs. 180, check the TDS of your tap water.

If you use RO technology, you will surely lose out on minerals but you have no choice due to poor water quality.

You can add minerals to this water to some extent by storing the RO water in clay pots or copper jugs.

Clay and copper have tendency to dissociate their minerals into the water retained in it.

■How big companies are making money out of people's ignorance using cheap marketing tactics, 5 instances:

1. Some companies claim to provide you the purest water by giving you technologies like RO, UF and NF all in one purifier.

This is a joke.

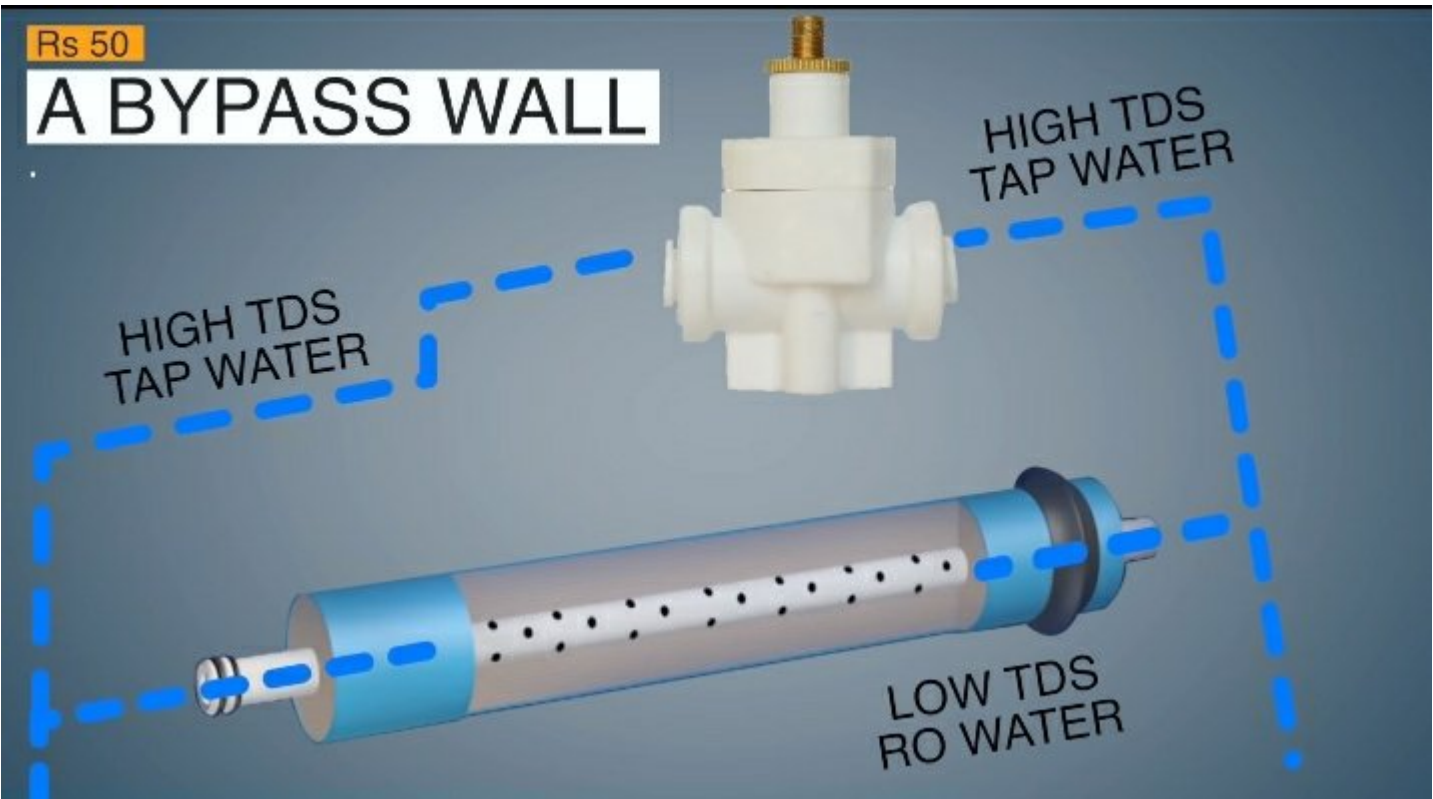
Once the water is passed through a strainer with smaller holes, what is the use of straining it again with a strainer with bigger holes.



2. Another marketing gimmick is TDS Controller.

TDS controller is nothing just a bypass valve (worth Rs. 50) which mixes a small amount of tap water with RO purified water to increase its TDS value.

What is even the point of doing this!



3. Aluminum UV chambers

To earn profits and to win the competition by delivering water purifier at cheapest possible price, many companies have started to make UV chambers made from Aluminum and not food grade stainless steel.

The problem with aluminum is that it releases aluminum oxides which are known to damage the brain.

Also, UV chamber must be placed horizontally to kill the bacteria and viruses more effectively.

4. Another marketing gimmick is '7 stage or 14 stage filter process'.

More filters doesn't mean more pure water.

No matter how hard or impure the water is, it doesn't require more than 4 chambers:

- sediment filter
- carbon filter
- membrane
- UV chamber



5. 'Alkaline cartridges' is another buzzword.

RO water is slightly acidic, to curb this companies came up with the idea of alkaline cartridges which change the pH of water chemically which can be even more harmful for the human body.

Now you know the real game behind the enticing markets of water purifiers and how these companies are ripping packets out of common man's fear and innocence.

I saw this video on YouTube by [@FitTuber](#) and felt like sharing with you all.

For more such threads in future, follow me at [@_GurmanKaur.](#)

Retweet the 1st tweet to spread this awareness.■

Feedback will be highly appreciated.

Stay healthy, stay safe.♥

Until next time, byebye!■