



Washington State Department of  
*Health*

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# Home Drinking Water Treatment for Arsenic

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# Home Treatment for Arsenic

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## Steps

- **Test Water Quality (Optional)**
  - (Arsenic[\$20], Silica[\$25], Hardness [\$20])
- **Purchase System**
- **Install and Test**
- **Maintain**

# Purchase a System

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## Basics

### NSF Approved

- Appx. 100 systems approved

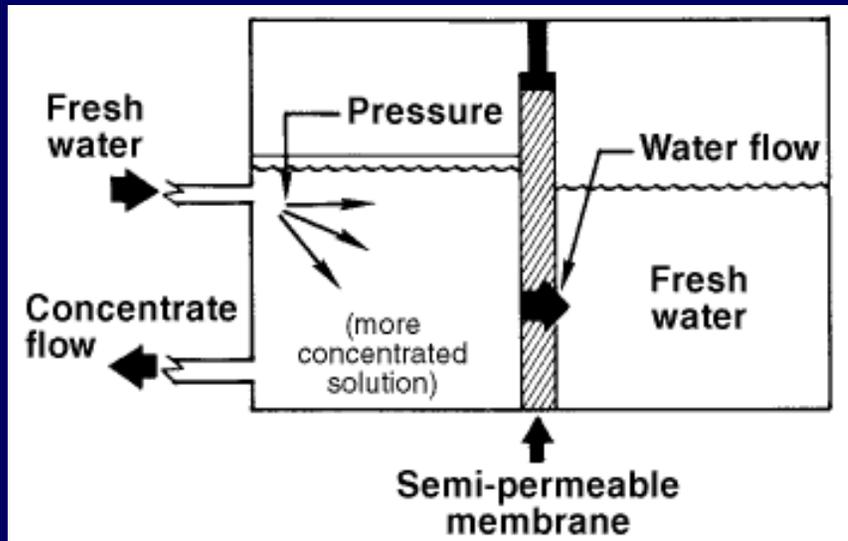
### Places –

- Home Improvement/Hardware Store
- Phone Book – Water: Purify and Filter

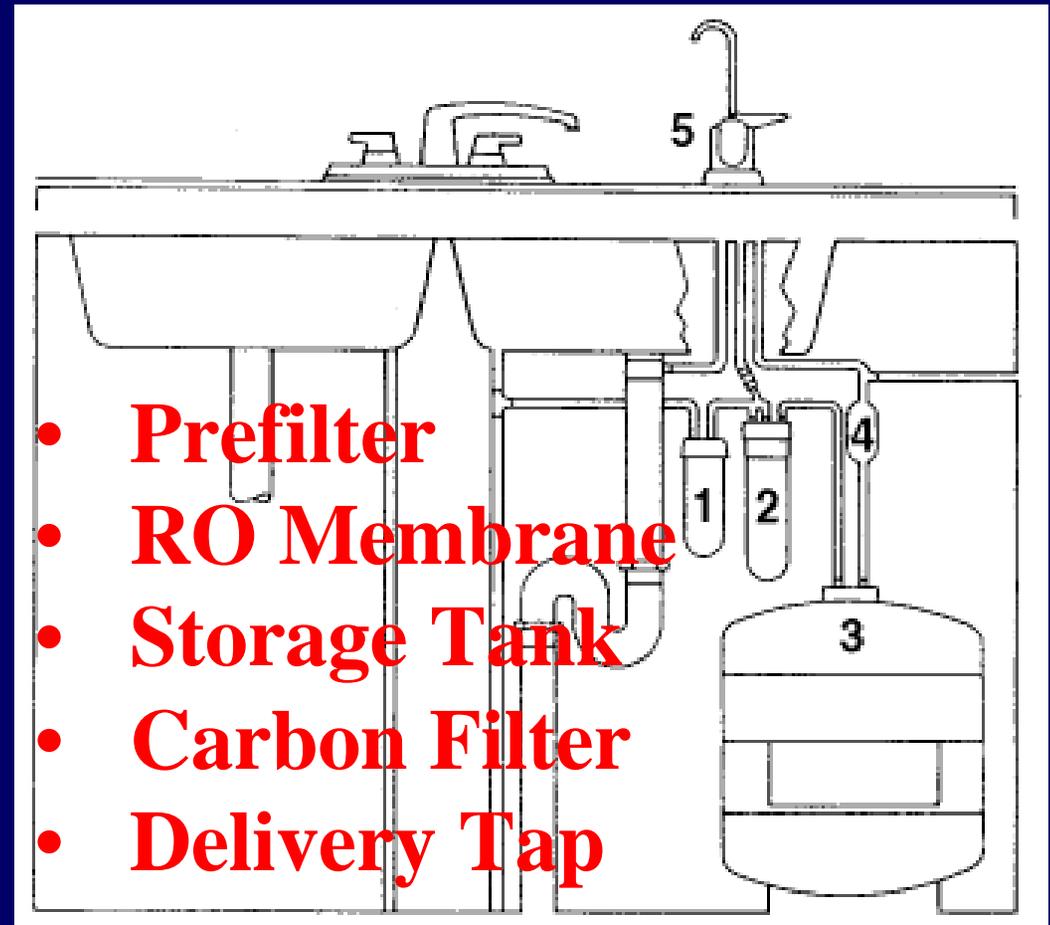


# Reverse Osmosis (RO)

## At-the-Tap Treatment Systems



**Basic Principal**



- **Prefilter**
- **RO Membrane**
- **Storage Tank**
- **Carbon Filter**
- **Delivery Tap**

# Reverse Osmosis (RO) At-the-Tap Treatment Systems

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## Basic System

10-20 gal/day @ 40 psi  
(\$250-500)

## Extras

- Booster Pump (\$150)
- Warning Light (\$30-40)

## Maintenance

- Prefilter/Sediment Filter (\$10-20) 3-6 months
- Reverse Osmosis Filter (\$90-150) 1-2 years



# Other Home Treatment Systems

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## NOT RECOMMENDED

- **Pitcher Filter** - Does not remove arsenic
- **Ion Exchange System** - Many potential problems
- **Water Softener** - Does not remove arsenic
- **KDF Filter** - Does not remove arsenic; possible pretreatment
- **Filox, Pyrolux** - Does not remove arsenic; possible pretreatment
- **Ultraviolet Light** - Does not remove arsenic
- **Ozone** - Does not remove arsenic. Could damage membrane.

# Other Home Treatment Systems

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## ALTERNATIVES

- **Activated Alumina** –
  - Stand alone or polishing filter
  - Water quality – pH <7.5, Low Iron and Manganese
  - Issues – More frequent replacement; Failure not detected
- **Iron Based Sorbents**
  - Similar to Activated Alumina
  - Issues – Last longer than alumina; Failure not detected
- **Distillation Equipment**
  - NSF Approved
  - Less Selection/More Energy

# Conclusions

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- **NSF Approved**
- **Test**
- **Maintain**