



Washington State Department of

*Health*

# Home Drinking Water Treatment for Arsenic

Samuel A. L. Perry, P.E.

Washington State Department of Health

Division of Drinking Water

20435 72nd Ave S, Suite 200

Kent, WA 98032 (253) 395-6755

[www.doh.wa.gov/ehp/dw](http://www.doh.wa.gov/ehp/dw)

[sam.perry@doh.wa.gov](mailto:sam.perry@doh.wa.gov)

# 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

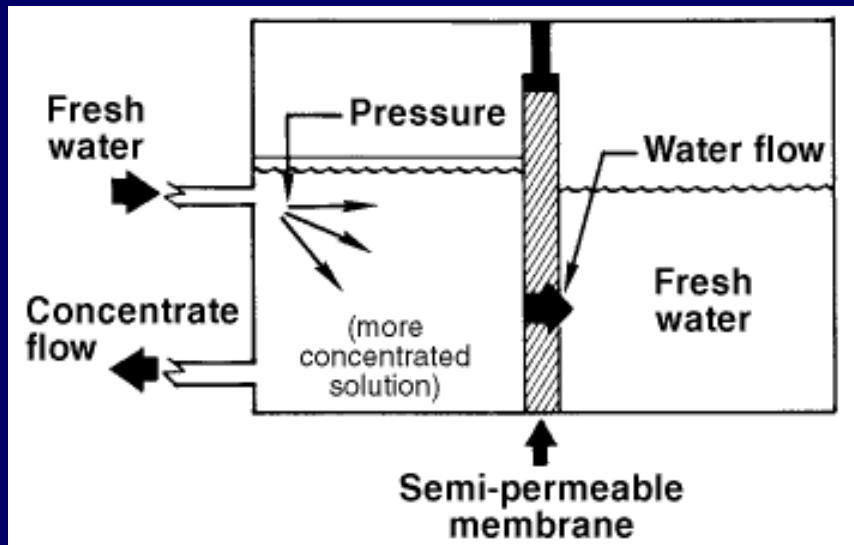
### Places –

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

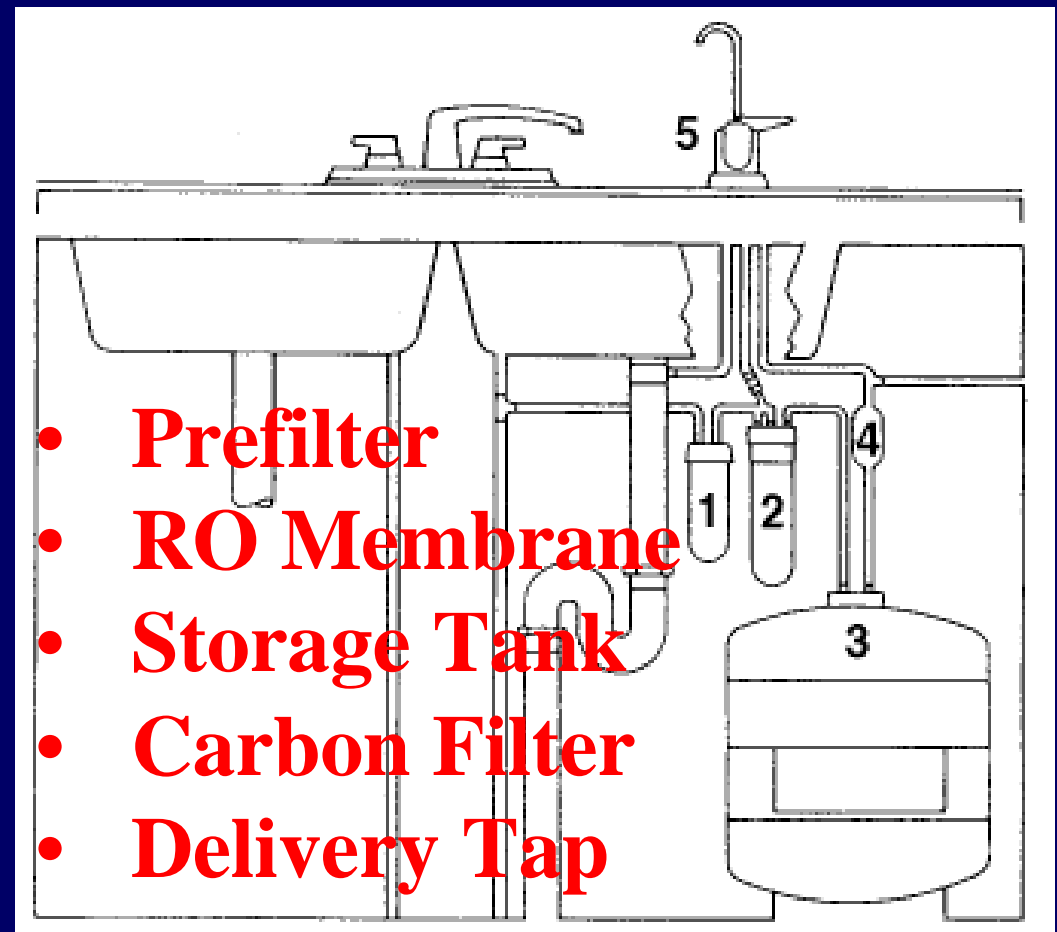


# Reverse Osmosis (RO)

## At-the-Tap Treatment Systems



**Basic Principal**



# 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**