

# HOW DIRTY IS YOUR WATER

Delhi's ground water is contaminated by dangerous pollutants, which are injurious to health

## PERMISSIBLE LIMITS

**Fluoride** (>1.5 mg/l), **Nitrate** (>45 mg/l), **Lead** (above 0.01 mg/l)  
**Cadmium** (above 0.003 mg/l), **Chromium** (above 0.05 mg/l).

## Pollutants above limit found across city

### North West Delhi

- Fluoride
- Nitrate
- Lead
- Chromium

### West Delhi

- Fluoride
- Nitrate
- Lead
- Chromium
- Cadmium

### South West Delhi

- Fluoride
- Nitrate
- Lead
- Chromium

### North Delhi

- Lead
- Chromium

### North East Delhi

- Chromium

### East Delhi

- Nitrate
- Chromium

### New Delhi

- Nitrate

### South Delhi

- Lead

## EFFECT ON HEALTH

**Fluoride:** May affect bones resulting in pain, tenderness and fractures in adults. In children below the age of 8, chances of developing fluorosis increases

**Nitrate:** In infants, nitrate may result in shortness of breath and blue baby syndrome – a condition in which the oxygen carrying capacity of haemoglobin reduces. If untreated, the condition may lead to death.

**Lead:** In children, exposure to lead may result in delay in physical and mental development. In adults, it can lead to increased blood pressure. Adults drinking lead-heavy water for many years may develop kidney problems.

**Cadmium:** May lead to kidney damage, if exposed to water with high cadmium level for many years.

**Chromium:** Chromium 6 may be carcinogenic. Exposure to excess chromium over the years may cause allergic dermatitis

## MAJOR SOURCES



### Lead acid battery recycling:

Few or no facilities for neutralizing and safe disposal of battery electrolyte. Acidic effluents percolate into water table, rivers and sanitary systems



### E-waste:

Toxic materials such as lead, mercury and cadmium is broken and separated in a very crude manner. Units that operate in, residential colonies pose a threat to environment and health



### Pickling process in manufacture of stainless steel:

Pickling solution consists of a mixture of nitric and hydrofluoric acid. Pickling discharges nitrates that follow the wastewater into our natural waters



**Dyeing:** Wastewater generated contains toxic chemicals. Jeans dyeing is a widespread activity in unauthorised areas. Most units release toxic wastewater into drains.