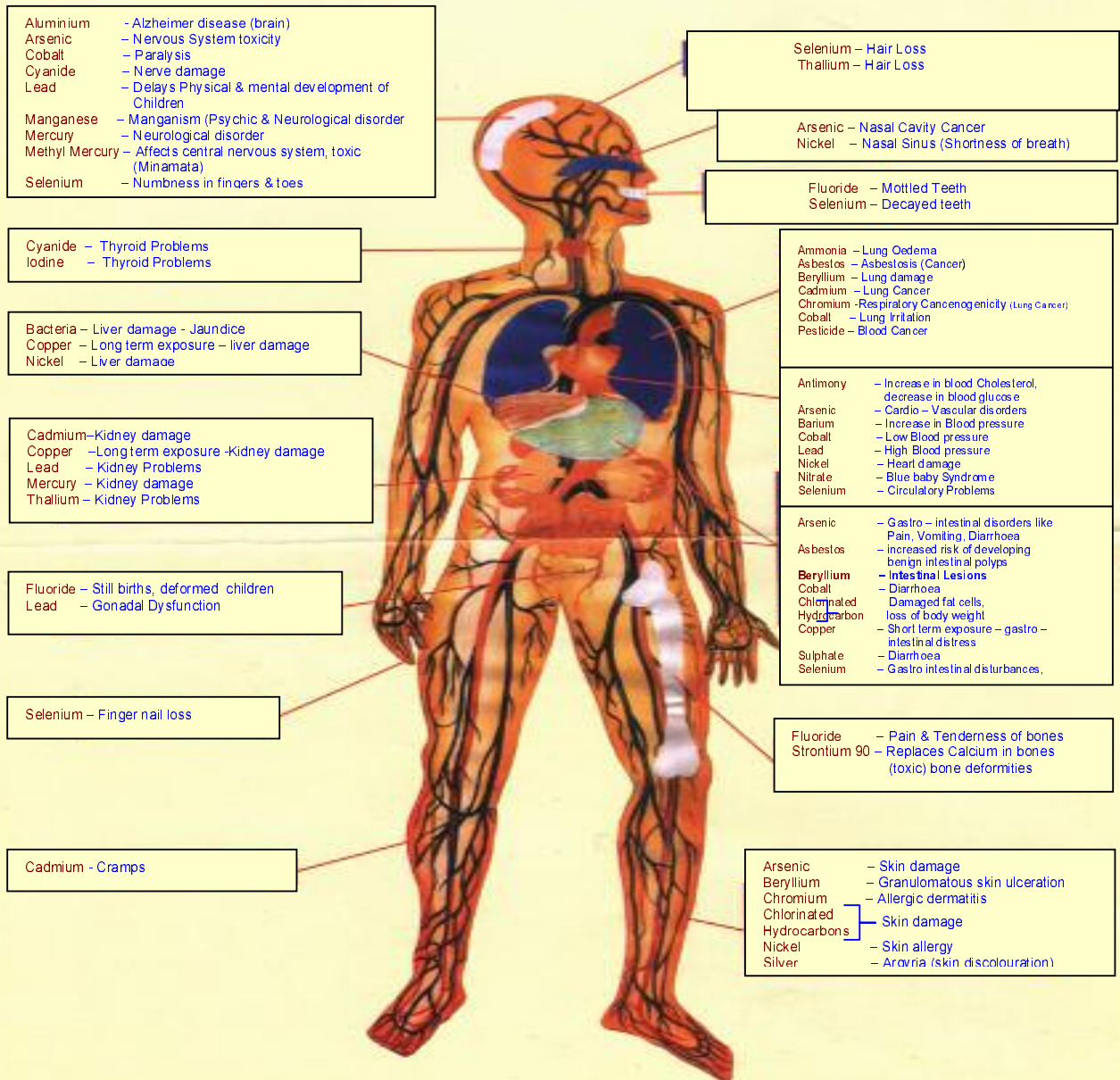




GOVERNMENT OF TAMIL NADU

IMPACT OF SOME MAJOR POLLUTANTS IN WATER ON HUMAN BODY



WATER QUALITY INFORMATION GUIDE

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WATER QUALITY INFORMATION

- | | |
|--|---|
| <ul style="list-style-type: none"> 📺 Do you know the quality of your well water? 📺 Do you know the water is fit for Consumption? 📺 Do you know the water is fit for Domestic life? 📺 Do you know the water is fit for Agriculture? 📺 Do you know the water is fit for Construction? | <ul style="list-style-type: none"> 📺 Do you know the water is fit for Industry? 📺 Do you know the disease caused by Salt water? 📺 Do you know the disease caused by the Nitrate, Fluoride and Arsenic water? 📺 Do you know the water born disease? 📺 Do you know the reasons for the colour water? |
|--|---|

To know the information for the above, you can Test and Use the water as you need.

WATER AND HUMAN BODY

The Salt content in drinking water should not exceed the allowable limits fixed by Bureau of Indian Standard (BIS) for different parameters. But at the same time it should not be devoid of minerals because it will be dehydrating the body instead of Hydrating.



23% Carbon

2.6% Nitrogen

10% Hydrogen

71% Water

61% Oxygen

1.9% Calcium

WATER DEMAND

Purpose	Amount (Litres)
Drinking	5
Cooking	5
Bathing	55
Washing Clothes	20
Cleaning utensils	10
Floor washing	10
Flushing of water closets	30

Purpose	Amount (Litres)
Hospital with <100 beds	340 1/bed
Hospital with > 100 beds	450 1/bed
Hostel	135 1/pcd
Office	45 1/pcd
Hotel	180 1/bed
Cinema hall/auditorium	15 1/seat

Animal	Amount (liters)
Cow or Buffalo	50
Horse	50
Mule	30
Hog	20
Dog	10
Sheep	5

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WATER QUALITY

The term 'Water Quality' is generally, used to express the physical, chemical or biological state of water. This, in term may be related to the suitability of water for a particular use or purpose.

WATER QUALITY MONITORING OBJECTIVES

- ☞ To build up an overall picture of the aquifer water quality thus enabling contamination cause and effect to be judged.
- ☞ To provide long-term background data against which future changes can be assessed.
- ☞ To provide warnings of potentially deleterious changes.
- ☞ To check for compliance.
- ☞ To precisely characterize aquifer water quality (possibly to enable classification to be carried out).
- ☞ To investigate pollution.
- ☞ To collect sufficient data to perform in-depth analysis (eg. Mathematical modeling) or to allow research to be carried out.
- ☞ To detect trends.

WATER QUALITY ISSUES

Contamination of water is certainly one of the key issues, as it can prevent water for being used for its intended purpose. Contamination can enter the water bodies through one or more of the following ways:

- **Direct point sources:** Transfer of pollutants from municipal – industrial liquid waste disposal sites and from municipal and household hazardous waste and refuse disposal sites.
- **Diffuse agricultural sources:** Percolation from agricultural lands carrying materials applied during agricultural use, mainly fertilizers, herbicides and pesticides.
- **Diffuse urban sources:** Percolation from horticultural, gardening and commercial activities in the urban environment and from industrial sites and storage areas.

WATER SAMPLING CONTAINERS AND PRESERVATIONS FOR SPECIAL PARAMETERS

S.NO	ANALYSIS	CONTAINER	VOLUME(ml)	PRESERVATION
1	General (Suspended Solids, Total Dissolved Solids, Major ions, Chlorophyll-a)	Glass, Polyethylene	1000	-
2	Chemical Oxygen Demand, Ammonia, Nitrite, Nitrate	Glass, Polyethylene	500	Add Sulphuric acid 2ml
3	Phosphorus	Glass	100	-
4	Coliforms	Glass, Polyethylene, Sterilised	300	Keep in the dark
5	Heavy metals (Cadmium, Zinc)	Glass, Polyethylene	500	Add Nitric acid 2 ml
6	Mercury	Glass	1000	Add Nitric acid 2 ml
7	Pesticides	Glass, Teflon	1000	Keep in the dark

WATER QUALITY STANDARDS AT THE POINT OF USE FOR VARIOUS INDUSTRIAL OPERATIONS (mg/L)

Parameter	Type of Industries				
	Boiler	Cooling	Textile	Paper	Tanning
Color (Hazen Units)	-	-	5	25	5
Calcium	-	200	-	20	150
Manganese	0.1	-	0.05	0.1	0.2
Iron	0.05	-	0.3	0.2	0.3
Aluminium	0.01	-	-	-	-
Ammonia	0.1	-	-	-	-
Silica	0.7	50	25	50	-
Bicarbonate	48	600	-	-	-
Sulphate	-	680	100	-	250
Chloride	-	600	100	200	250
Dissolved solids	200	1000	200	300	-
Suspended solids	0.5	5000	5	-	-
Hardness	0.07	850	50	100	40
Alkalinity	40	500	200	75	-
Turbidity (NTU)	-	-	5	40	0

CONSULTANCY CHARGES FOR WATER ANALYSIS

SL. NO.	DETAILS OF ANALYSIS	AMOUNT
1.	Analysis of one water samples for physico-chemical parameters	RS.250/-
2.	Analysis of heavy metals (any one heavy metal) in one sample including boron	RS.150/-
3.	Analysis of BOD or COD or DO or any one bacteria in one samples	RS.100/-
4.	Analysis of any one pesticide in one sample	RS.250/-

For more information please contact :

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நாடு நலம் பெற !

நீரின் தரம் பேணுவோம் !