

Chapter 2

MICROORGANISMS FRIEND AND FOE

Pathogenic organisms:

Pathogenic microorganisms also called harmful microorganisms, which cause diseases and infection to plants, animals, humans.

Microbial diseases that can spread from an infected person to a healthy person through air, water, food and physical contact called communicable disease.

Human disease caused by Bacteria:

Tuberculosis	-	Mycobacterium tuberculosis
Typhoid	-	Salmonella typhi
Cholera	-	Vibrio cholera
Plague	-	Yersinia pestis
Diphtheria	-	Coryne bacterium diphtherica
Food poisoning	-	Clostridium botulinum
Whooping cough	-	Bordetella pertussis

Parasite:

Malaria	-	Plasmodium species
Kala azar	-	Leishmania species
Amoebiasis	-	Entamoeba histolytica

Fungi:

Aspergillosis (bronchitis)	-	Aspergillus species
Candidiasis	-	Candida albicans

Viruses:

1	Polio	-	Polio virus
2	Rabies	-	Rabies virus
3	Mumps	-	Paramyxo virus
4	Common cold	-	Rhino virus.

Table 2.1: Some common human diseases caused by microorganisms

Human Disease	Causative Microorganism	Mode of Microorganism	Preventive Measures (General)
Tuberculosis	Bacteria	Air	Keep the patient in complete
Measles	Virus	Air	
Chicken Pox		Air/Contact	

Polio	Virus Virus	Air/Water	isolation. Keep the personal belongings of the patient away from those of the others. Vaccination to be given at suitable age.
Cholera Typhoid	Bacteria Bacteria	Water/Food Water	Maintain personal hygiene and good sanitary habits. Consume properly cooked food and boiled drinking water. Vaccination.
Hepatitis A	Virus	Water	Drink boiled drinking water. Vaccination.
Malaria	Protozoa	Mosquito	Use mosquito net and

			repellents. Spray insecticides and control breeding of mosquitoes by not allowing water to collect in the surroundings.
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Animal:

Bacteria:

Anthrax - Bacillus anthracis

Virus - Mad cow disease(Cattle) - prion

