

Diseases	Causes	Symptoms	Prevention
Anaemia	Main cause is due to Iron deficiency. Infections related to nutritional deficiency, sanitation, hygiene, safe water & water management contribute to cause anaemia.	Its associated with dizziness, fatigue, loss of appetite, loss of colour in the skin, nails, lips .	Including folic acid, vitamins A& B12 , breast feeding in children. Improving sanitation, health, hygiene & water management.
Arsenicosis	Drinking water rich in arsenic over a long period of time causes aeseenicosis.	Drinking this water for more than 5 yrs can lead to various skin diseases, cancer of kidney, bladder, kidney, high blood pressure, sometimes diabetes & disease of the blood vessel.	Supply of drinking water with no traces of arsenic. Deeper wells, tools to test arsenic & removing it in households ,rainwater harvesting.
Ascariasis	Its an infection of the large intestine caused by roundworm(Ascaris lumbricodes). Uncooked food & contact with soil contaminated by human faeces containing the eggs of these worms are chief sources for infection.	People may suffer from breathing problems, wheezing, fever. Severe infection can cause abdominal pain due to blocked intestines(expecially seen in children).	Well cooked food, avoiding cultivation in conataminated soil, good water supply to maintain personal hygiene.
Campylobac teriosis	Campylobacteriosis is a zoonosis (passed to humans via animals or animal products). The cause is a bacterium, usually Campylobacter jejuni or C. coli.	Diarrhoea (often including the presence of mucus and blood), abdominal pain, malaise, fever, nausea and vomiting. The illness usually lasts 2 to 5 days but may be prolonged by relapses, especially in adults. Many of those infected show no symptoms. In some individuals a reactive arthritis (painful inflammation of the joints) can occur. Rare complications include seizures due to high fever or neurological disorders such as Guillain-Barre syndrome or meningitis. Death from campylobacteriosis is rare and is more likely in the very young, the very old, or those already suffering from a serious disease such as AIDS.	Safe drinking-water supply . proper handling of production animals. proper sewage-disposal systems and protection of the water supply from contamination, thorough cooking of potentially contaminated foods. Adequate personal hygiene (washing hands after toilet use as well as after handling pets or farm animals) Avoiding raw milk.
Cholera	Caused by bacterium vibrio cholerae, present in contaminated water, food.	Painless watery diarrhea, vomiting , nausea. severe cases if left untreated leads to dehydration & death.	Provision of good drinking water, proper personal hygiene, proper sanitation, proper food hygiene.

Cyanobacterial toxins	Some species of cyanobacteria produce toxins that affect animals and humans who drink or come in contact with water contaminated by the cyanobacteria or blue-green algae.	Skin irritation, stomach cramps, vomiting, nausea, diarrhoea, fever, sore throat, headache, muscle and joint pain, blisters of the mouth and liver damage. Swimmers in water containing cyanobacterial toxins may suffer allergic reactions, such as asthma, eye irritation, rashes, and blisters around the mouth and nose. Animals, birds, and fish can also be poisoned by high levels of toxin-producing cyanobacteria.	<p>Better management of waste water disposal systems and control of pollution by fertilizers (including manure) from agriculture.</p> <p>Educating the staff in the health and water supply department, as well as the public, about the risks of drinking, bathing or water sports in water likely to contain high densities of cyanobacteria.</p> <p>Water treatment to remove the organisms and their toxins from drinking-water supplies.</p>
Dengue	There are four distinct, but closely related, viruses which cause dengue	<p>Fever & rash in young children. Older children and adults may have either a mild fever, or with abrupt onset and high fever, severe headache, pain behind the eyes, muscle and joint pains, and rash. The rash may not be visible in dark-skinned people.</p> <p>DHF is a potentially deadly complication that is characterized by high fever, haemorrhage - often with enlargement of the liver—and in the most severe cases, circulatory failure. The illness commonly begins with a sudden rise in temperature accompanied by facial flushing and other general symptoms of dengue fever.</p> <p>The fever usually continues for 2-7 days. It can be as high as 40-41° C, and may be accompanied by febrile convulsions.</p>	Removal of the mosquito breeding-sites, known as source reduction. Proper disposal of solid waste helps to reduce the collection of water in discarded articles. preventing mosquito bites with screens, protective clothing and insect repellents, in epidemic risk areas, application of insecticide is practiced to decrease the mosquito population.

Diarrhoea	Diarrhoea is caused by a host of bacterial, viral and parasitic organisms most of which can be spread by contaminated water,contaminated food.	Liquid stools more frequently than is normal for the individual. Depending on the type of infection, the diarrhoea may be watery (for example in cholera) or passed with blood (in dysentery for example) Severe diarrhoea may be life threatening due to fluid loss in watery diarrhoea, particularly in infants and young children, the malnourished and people with impaired immunity.	Access to safe drinking water. Improved sanitation. Good personal and food hygiene. Health education about how infections spread.
Drowning	Lapse of supervision by adults, when children are swimming, insufficient swimming skills,alcohol consumption prior to swimming.	Death by suffocation due to immersion in water.	Avoid swimming in unsafe waters, adequate life guards at public swimming places,refrain from swimming beyond skill levels,supervised swimming,safe pools,swimming lessons.
Fluorosis	Fluorosis is caused by excessive intake of fluoride,mostly through drinking water	In severe cases, the bone structure may change and ligaments may calcify, with resulting impairment of muscles and pain. Acute high-level exposure to fluoride causes immediate effects of abdominal pain, excessive saliva, nausea and vomiting. Seizures and muscle spasms may also occur.	supply of safe drinking-water with safe fluoride levels. use of bone charcoal, contact precipitation, use of Nalgonda or activated alumina.
Guinea-worm diseases	Caused through contaminated water. Painful infection caused by large round worm called Dracunculus medinensis. Infected persons try to relieve the pain by immersing the infected part in water, usually open water sources such as ponds and shallow wells.	It begins with blister, usually on the leg. Around the time of its eruption, the person may experience itching, fever, swelling and burning sensation. This can be further complicated by bacterial infection, stiff joints, arthritis and even permanent debilitating contractures of the limbs ations.	Provision of safe drinking-water in rural and isolated areas including use of filtering devices and chemical treatment of water resources. WHO has promoted the eradication campaign, specific interventions include: health education, case containment, community-based surveillance systems.
Hepatitis	Hepatitis A and Hepatitis E are caused through water and food.	Abrupt onset of fever, body weakness, loss of appetite, nausea, and abdominal infection followed by jaundice due to infection and inflammation of the liver.	Avoid using contaminated water. Always drink boiled water. Do not use boiled water for more than 2 days. Avoid using food which is uncooked, food

		Hepatitis A, most infections occur during early childhood. The majority of cases may not show any symptoms; fatal cases due to fulminant acute hepatitis are rare.	handled after cooking. Provide education on good sanitation and personal hygiene. Women in the third trimester of pregnancy are especially susceptible to acute fulminant hepatitis arising from hepatitis E infection.
Japanese Encephalitis	Transmitted by mosquitoes belonging to the <i>Culex tritaeniorhynchus</i> and <i>Culex vishnui</i> groups which breeds particularly in flooded rice fields, infects both animals and humans. It's a disease caused by Flavivirus.	Fever, headache, neck stiffness, disorientation, coma, seizures, spastic paralysis and death. Occurs mainly in young children because older children and adults have already been infected and are immune.	Chemical vector control is not a solution, as the irrigated rice fields are extensive. In some rice production systems faced with water shortages, however, certain water management measures (alternate wetting and drying) may be applied that reduce vector populations. Personal protection Eliminating the pig population.
Lead poisoning	The main source of lead in drinking water is (old) lead piping and lead-combining solders. Secondary pollution from industry can contaminate water through the effluents produced. Use of lead-containing ceramics for cooking, eating or drinking. In some cases people are exposed to lead after eating food products from cans that contain lead solder in the seams of the cans. Very small children are especially at risk through the ingestion of paint chips from lead-based paint. Lead contamination from the motor vehicle exhaust of leaded gasoline.	It damages nervous, reproductive systems and kidney. It leads to high blood pressure and anemia. High blood lead levels in children can cause consequences which may be irreversible including learning disabilities, behavioral problems, and mental retardation. At very high levels, lead can cause convulsions, coma and death.	Environmental standards that remove lead from petrol/gasoline, paint and plumbing. If lead pipes cannot be removed, water should be flushed through in the morning before drinking. Enforcement of occupational health standards. Water treatment. Removing lead solder from food cans. Use of lead-free paint in homes. The health based guideline for lead in drinking water is 0.1 milligrams per litre.
Leptospirosis	Human infection occurs through direct contact with the urine of infected animals or by contact with a urine-contaminated environment, such as surface	The early stages of the disease may include high fever, severe headache, muscle pain, chills, redness in the eyes, abdominal pain, jaundice, haemorrhages in	Aim at control at the level of the infection source (e.g. rodent control, animal vaccination);

	<p>water, soil and plants. Leptospire can gain entry through cuts and abrasions in the skin and through mucous membranes of the eyes, nose and mouth. Human-to-human transmission occurs only rarely.</p>	<p>skin and mucous membranes (including pulmonary bleeding), vomiting, diarrhoea and a rash.</p>	<p>interrupt the transmission route (e.g. wearing protective clothing, refrain from contact with infected animals and from swimming in contaminated water, provide clean drinking-water); or</p> <p>prevent infection or disease in the human host (e.g. vaccination, antibiotic prophylaxis, information to doctors, veterinarians, risk groups and the general population).</p>
<p>Malaria</p>	<p>Malaria is caused by four species of Plasmodium parasites (P. falciparum, P. vivax, P. ovale, P. malariae). People get malaria after being bitten by a malaria-infected Anopheles mosquito.</p>	<p>Fever, chills, headache, muscle aches, tiredness, nausea and vomiting, diarrhoea, anaemia, and jaundice (yellow colouring of the skin and eyes). Convulsions, coma, severe anaemia and kidney failure can also occur. The severity and range of symptoms depend on the specific type of malaria. In certain types, the infection can remain inactive for up to five years and then recur. In areas with intense malaria transmission, people can develop protective immunity after repeated infections. Without prompt and effective treatment, malaria can evolve into a severe cerebral form followed by death. Malaria is among the five leading causes of death in under-5-year-old children in Africa.</p>	<p>Avoid mosquito bites using repellent, nets.</p> <p>Reduce mosquito breeding sites by filling in and draining water bodies and through other environment. Ensuring early detection and control of malaria epidemics, especially in emergency situations.</p>

Malnutrition	Malnutrition is both a medical and a social disorder, often rooted in poverty. Poor water and sanitation are important causes followed by wrong types of food. It affects all ages of group.	Leads to infectious disease called Diarrhoea. Severe forms of malnutrition include marasmus (chronic wasting of fat, muscle and other tissues); cretinism and irreversible brain damage due to iodine deficiency; and blindness and increased risk of infection and death from vitamin A deficiency.	Improved water supply, sanitation and hygiene. Health education for a healthy diet. Improved access, by the poor, to adequate amounts of healthy food.
Methaemoql obinemia	Methaemoglobinemia is characterized by reduced ability of the blood to carry oxygen because of reduced levels of normal haemoglobin	Infants are most often affected, and may seem healthy, but show signs of blueness around the mouth, hands, and feet, hence the common name "blue baby syndrome". These children may also have trouble breathing as well as vomiting and diarrhoea. In extreme cases, there is marked lethargy, an increase in the production of saliva, loss of consciousness and seizures. Some cases may be fatal.	Control of nitrate in drinking water WHO's Guideline Value for nitrate in drinking water is 50 mg /litre and for nitrite is 3mg/litre. Breastfeeding protects babies from methaemoglobinaemia. Boiling water does not remove nitrate. For severely affected individuals, medical treatment is possible.
Onchocercia sis(River blindness)	River blindness is a parasitic disease caused by Onchocerca volvulus, a thin parasitic worm that can live for up to 14 years in the human body. The disease is transmitted from one person to another through the bite of a blackfly (Simulium).	Symptoms of the disease in a person usually begin to show 1-3 years after infection. Each adult female worm (macrofilaria), which can be more than ½ metre in length, produces millions of microscopic young worms (microfilariae). The microfilariae migrate through the skin and, upon death, cause intense itching and depigmentation of the skin ("leopard skin"), lymphadenitis resulting in hanging groins and elephantiasis of the genitals, serious visual impairment, and blindness when they reach the eye	Two main actions undertaken against onchocerciasis control are spraying of breeding sites in water of the blackflies with larvicides, and the treatment of patients with a drug (ivermectin) that kills the young worms.
Ringworm	Ringworm is a contagious skin disease, in which the scalp (tinea capitis), nails (tinea unguium), feet (tinea pedis or "athlete's	On the scalp, ringworm begins in the form of a pimple or sore, which then spreads into a ring shape. Hair becomes brittle,	Adequate supply of water for personal washing and hygiene.

	<p>foot"), or body (tinea corporis) can be affected. Despite its name, ringworm is caused by a fungus.</p>	<p>breaking easily and falling out, leaving bald spots on the scalp. On the body, ringworm may first appear as red or pink, flat or slightly raised, patches on the skin. The circular sores may be dry or scaly crusted or moist. As the sores become larger, the central area clears, leaving a ring of infected tissue around the clear area. Infection in the nails usually begins at the site of an injured nail and may spread to the other nails. Infected nails become thick, pitted, grooved and abnormal in shape and colour.</p> <p>Ringworm of the feet and body are more frequent in men than women. Adults are more likely than children to get ringworm of the feet, which occurs more frequently in hot weather.</p>	<p>Regular and thorough bathing with soap and water, with special attention to drying moist areas.</p> <p>The clothing and linen of infected persons should be frequently laundered in hot water to rid them of the fungus.</p> <p>Rashes can be treated with topical anti-fungal lotions or creams. In severe or persistent cases oral anti-fungal medication may be required.</p>
--	--	--	---

Scabies	Scabies infestation is caused by the microscopic mite <i>Sarcoptes scabiei</i> . Scabies spreads principally by direct skin-to-skin contact, contact with infested garments and bedclothes. Environments that are particularly vulnerable to the spread of scabies include hospitals, childcare facilities and any crowded living conditions. Infestation is easily passed between sexual partners.	pimple-like rash that is most commonly found on the hands, especially the webbing between the fingers, the skin folds of the wrist, elbow or knee, the penis, the breast or the shoulder. Infestation often causes intense itching all over the body, especially at night. Scratching of itchy areas results in sores that may become infected by bacteria. A more severe form of scabies, known as Norwegian scabies, is more common among people with weakened immune systems. In this form of the disease, vesicles are present along with thick crusts over the skin. The itching in this type of scabies may be less severe or totally absent.	Improved personal hygiene, access to adequate water-supply. Treatment of patients is with acaricide ointments preceded by a hot bath with liberal use of soap. Infested clothing should be sterilized or washed in hot soapy water. Bedding, mattresses, sheets and clothes may require dusting with acaricides. The mass distribution of ivermectin organized by WHO for the control of onchocerciasis and lymphatic filariasis (in this case associated with albendazole) could have an important impact on scabies.
Schistosomiasis	Schistosomiasis infection in humans, the definitive hosts, is caused by three main species of flatworm, namely <i>Schistosoma haematobium</i> , <i>S. japonicum</i> , and <i>S. mansoni</i> . In Asia, cattle and water buffalo can be important reservoir hosts.	The signs following infection are rashes. Two months after infection, fever, chills, cough and muscle aches may occur, as the parasites mature. Untreated infections can result in blood in urine and stools, and enlarged liver and spleen. In children there is a negative impact in terms of growth, nutritional status and cognitive development. Chronic infection leads to diseases of the liver, kidneys and bladder. Occasionally, the nervous system is affected causing seizures, paralysis or spinal cord inflammation.	Health education regarding personal hygiene, environmental modification preventing snail vectors and limiting human water contact offers long-term control of schistosomiasis. In areas of high prevalence and intensity of infection, chemotherapy with praziquantel, is administered.
Spinal Injury	water-related cause of spinal injury is associated with recreational use, such as diving into water. Deformities of the	The effects depend on the severity and site of the injury; for instance, minor injuries may fracture one or more	Education about diving hazards and safe behaviour

	spine may also occur when water has to be fetched and carried long distances over a considerable period of time.	vertebrae without damaging the nerves or spinal cord. Hyperextension of the spine may occur in diving or falls from a height, with particular risks to the cervical spine in the neck. Falls may dislodge one or more vertebrae, with consequent damage to the nerves. Severe damage to the cord and nerves emerging from the vertebral column will cause paralysis.	Supervision by life guards Diving instruction Access to emergency services for rapid first aid and treatment
Trachoma	Trachoma is caused by an organism called Chlamydia trachomatis. Through the discharge from an infected child's eyes, trachoma is passed on by hands, on clothing, or by flies that land on the face of the infected child.	Infection usually first occurs in childhood but people do not become blind until adulthood. The disease progresses over years as repeated infections cause scarring on the inside of the eyelid, earning it the name of the "quiet disease" The eyelashes eventually turn in. This causes rubbing on the cornea at the front of the eye. The cornea becomes scarred leading to severe vision loss and eventually blindness.	Good personal and environmental hygiene. Encouraging the washing of children's faces, improved access to water, and proper disposal of human and animal waste .
Typhoid& paratyphoid	Typhoid fever is a bacterial infection of the intestinal tract and bloodstream and are caused by the bacteria Salmonella typhi and Salmonella paratyphi respectively.	Sustained fever as high as 39°-40° C, malaise, anorexia, headache, constipation or diarrhoea, rose-coloured spots on the chest area and enlarged spleen and liver. Most people show symptoms 1-3 weeks after exposure. Paratyphoid fever has similar symptoms to typhoid fever but is generally a milder disease.	Health education about personal hygiene, especially regarding hand-washing after toilet use and before food preparation; provision of a safe water supply, proper sanitation systems, disease carriers should not handle food .