

Other Type of Hazards and DisasterChemical Disaster:-

A chemical disaster is the unintentional release of one or more hazardous substances which could harm human health and the environment.

Chemical hazards are systems where chemical accidents could occur under certain circumstances.

Such events include fires, explosions, leakages or release of toxic or hazardous materials that can cause people illness, injury or disability.

Industrial Disaster:-

Industrial accidents are severe mishaps that result in injuries to people and damage to property or the environment.

For an example an explosion or fire at a pyrotechnics manufacturing facility is an industrial accident.

It is caused by industrial companies, either by accidents, negligence or incompetence.

Effects of Chemical Disaster:-

Accidents or incorrect use of household chemical products may cause immediate health effects, such as skin or eye irritation or burns or poisoning.

There can also be longer term health effects from chemicals. When these occur, they are usually the result of exposure to certain chemicals over a long period of time.

After the Bhopal Gas Tragedy, a hazardous chemical disaster not only destroyed the environment but also injured 10 human beings.

A chronic health (asthma and cancer) effect is an adverse health effect resulting from long-term exposure to a substance.

Effects of Industrial Disaster:-

There are many jobs in industries which are highly prone to accidents like

→ Slipping, tripping or falling on the floor

→ Collision and obstruction

→ Equipments and machines

→ Fire hazards

→ Unsafe Acts

→ Miscellaneous causes

Unsafe conditions are the biggest cause of industrial accidents. Such causes are associated with defective plants, equipments, tools, materials, buildings etc. These can be termed 'technical causes'.

Preparedness of chemical and Industrial Disaster:-

Before:- (Chemical Disaster)

→ Avoid mixing chemicals, even common household products.

→ Always read and follow the directions when using a new product.

→ Store chemical products properly.

→ Beware of fire.

→ Dispose of unused chemicals properly.

Before:- (Industrial Disaster)

→ Obey safety requirements. One of the main causes of injuries and accidents on the job is failure to comply with safety regulations.

→ Get proper training.

→ Keep machinery & equipment in working order.

→ Do not take shortcuts.

During And After (Chemical And Industrial Disaster):-

- Do not panic, evacuate calmly and quickly perpendicular to wind direction through the designate escape route.
- Keep a wet handkerchief or piece of cloth on face during evacuation.
- Keep the sick, elderly, weak, handicapped, and other people who are unable to evacuate inside house and close all the doors and windows tightly.
- Inform fire, emergency services, police and medical services from safe location by calling 101, 100 and 108 resp.
- Do not consume the uncovered food/water, etc. open to the air, drink only from bottle.

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Epidemic :-

It is a widespread occurrence of an infectious disease in a community at a particular time.

Example :- Corona virus.

Epidemic refers to a sudden increase in the number of cases of disease above what is normally expected.

It is defined as an outbreak of disease that spreads quickly and affects many individuals at the same time.

Causes :-

There are many major factors that allow viruses to cause epidemics.

- Human population dynamics and behaviour.
- changes in insect or reservoir populations.
- Weather and climate changes.
- Technology.

- changes to ^{the} viruses themselves.
- Meeting the challenges of new epidemic.
- It is also caused by an infection, transmitted through person to person contact, animal to person contact, or from the environment or other media.

Example :-

→ Corona disease is caused by virus.

→ Minamata disease is caused by exposure to mercury.

Effects:-

There are primarily two types of effects on human in epidemic disease.

→ Biological

→ Psychological

Biological effect of importance is death.

Psychologic effect leads to psychiatric diseases.

Epidemics are causing more economic damage when they occur.

Our economic is severely affected by epidemic disease.

Epidemics can cause significant, widespread increases in morbidity and mortality.

Warnings:-

Simple methods have been developed to warn of pre-epidemics and epidemics in small areas using data of infectious diseases surveillance.

Epidemic warnings are made if the index of cases per week per sentinel medical institution is greater than a defined value.

Heat Wave:-

It is prolonged period of abnormally hot weather.
It is a period of excessively hot weather, which may be accompanied by high humidity, especially in oceanic climate countries.

The world meteorological organisation defines a heat wave as 5 or more consecutive days of prolonged heat in which the daily maximum temperature is higher than the average maximum temp. by 5°C (9°F) or more.

Dangers and effects:-

Heat exhaustion is a major risk during heat waves because when people are exposed to a prolonged exposure to the sun, they begin to sweat profusely and dehydrate. Their body produces more heat than it can dispose of and soon they experience weakness, cramps and headaches.

During heat waves, it is harder for your body to cool and maintain its temperature within normal limits. The longer you spend in the heat, the more serious the effects on your body can be.

Increased body temperature can cause heavy sweating, clammy skin, dehydration, tiredness, headache, dizziness, nausea, and a quick, weak pulse.

Severe heat waves have caused catastrophic crop failures, thousands of deaths from hyperthermia and widespread power outages due to increased use of air conditioning.

A heat wave is considered extreme weather that can be a natural disaster and a danger because heat and sunlight may overheat the human body.

Forecast and Warning:-

Heat waves can usually be detected using forecasting instruments so that a warning call can be issued.

Heat alert forecasting service uses information from the national "Hot weather planning advice forecast" service that is issued to public authorities and health professionals by Met office.

The forecasts are supported by information provided by public health England's heatwave plan for England.

The plan describes the heat-health watch system which operates in England from 1 June to 15 September each year.

During this period, the Met office may forecast heatwaves, as defined by forecasts of day and night-time temperatures and their duration.

Awareness:-

We should stay hydrated by keeping water with you and drinking regularly. Avoid alcohol and caffeinated drinks, which can dehydrate us.

We should avoid excessive physical activity, particularly in the hotter periods of the day.

We should stay in the shade between the hours of 11am and 3pm, when the sun's UV rays are at their most intense.

We should cover up as much as possible, (wear cool, loose clothing and a hat).