

## HEAT WAVE INFORMATION

A Heat Wave is a period of abnormally high temperatures, more than the normal maximum temperature that occurs during the summer season in the North-Western parts of India. Heat Waves typically occur between March and June, and in some rare cases even extend till July. The extreme temperatures and resultant atmospheric conditions adversely affect people living in these regions as they cause physiological stress, sometimes resulting in death.

Heat wave is considered if maximum temperature of a station reaches at least 40°C or more for Plains, 37°C or more for coastal stations and at least 30°C or more for Hilly regions.

As per Indian Meteorological department, following criteria are used to declare heat wave:

a) Based on Departure from Normal

- Heat Wave: Departure from normal is 4.5°C to 6.4°C
- Severe Heat Wave: Departure from normal is >6.4°C

b) Based on Actual Maximum Temperature (for plains only)

- Heat Wave: When actual maximum temperature > 45°C
- Severe Heat Wave: When actual maximum temperature >47°C

To declare heat wave, the above criteria should be met at least in 2 stations in a Meteorological sub-division for at least two consecutive days and it will be declared on the second day.

### HEAT WAVE WARNING

Green (No action)	Normal Day	Maximum temperatures are near normal
Yellow Alert (Be updated)	Heat Alert	Heat wave conditions at district level likely to persist for 2 days
Orange Alert (Be prepared)	Severe Heat Alert for the day	i. Severe heat wave conditions persist for 2 days. ii. With varied severity, heat wave is likely to persists for 4 days or more
Red Alert	Extreme Heat	i. Severe heat wave persists for more than 2 days. ii. Total number of heat/severe heat wave days likely to exceeds 6 days.

### HEALTH IMPACTS OF HEAT STRESS

1. Heat stroke : Due to failure of heat regulating mechanism, characterized by very high body temperature which may rise to 1100 F (43.3° F) and profound disturbances including delirium, convulsions and partial or complete loss of consciousness. The skin is dry and hot. Classically, sweating is absent or diminished.

2. Heat Hyperpyrexia: Due to impaired functioning of the heat regulating mechanism but without characteristic features of heat stroke. It is arbitrarily defined as a temperature above 106° F. It may proceed to heat stroke.

3. Heat exhaustion: Caused by the imbalance or inadequate replacement of water and salts lost in perspiration due to thermal stress. Typically occurs after several days of high temperature. Patient feels dizziness, weakness and fatigue. Body temperature may be normal or moderately elevated , but it is uncommon to exceed 102° F ( 38.9° C).

4. Heat Cramps: Occur in persons , who are doing heavy muscular work in high temperature and humidity. There are painful and spasmodic contractions of the skeletal muscles due to loss of sodium and chloride in the blood.

5. Heat Syncope: The person standing in the sun becomes pale, his blood pressure falls and he collapses suddenly. Particularly there is no rise of body temperature. The patient should be made to lie in the shade with the head slightly down.

## **TIPS FOR TREATMENT OF A PERSON AFFECTED BY A SUNSTROKE:**

If you think someone is suffering from the heat

- Lay the person in a cool place, under a shade. Wipe her/him with a wet cloth/wash the body frequently. Pour normal temperature water on the head. Fan the person. The main thing is to bring down the body temperature. Loosen clothes for better ventilation
- Give water or a rehydrating drink (if the person is still conscious). ORS or lemon sarbat/torani or whatever is useful to rehydrate the body. Do not give alcohol, caffeine or aerated drink
- Take the person immediately to the nearest health facility. Consult a doctor if symptoms get worse or are long lasting or the person is unconscious. The patient may need immediate hospitalisation, as heat strokes could be fatal.

## **EMERGENCY KIT**

- Water bottle
- Umbrella/ Hat or Cap / Head Cover
- Hand Towel
- Hand Fan
- Electrolyte / Glucose / Oral Rehydration

## **ACCLIMATISATION**

People at risk are those who have come from a cooler climate to a hot climate. You may have such a person(s) visiting your family during the heat wave season. They should not move about in open field for a period of one week till the body is acclimatized to heat and should drink plenty of water. Acclimatization is achieved by gradual exposure to the hot environment during heat wave.

## **DO'S and DONT'S**

High temperatures can result in ill effects on body and can be prevented by observing following preventive measures :

### **DO's**

- Keep yourself updated regarding local weather forecast to know if a heat wave is on the way during coming days by means of Radio, TV, News paper etc
- Even if you are not thirsty , you should drink sufficient water as often as possible, specially while working outside under high temperature
- The clothing worn should be lightweight, loose , porous and of light colors. Protective goggles , umbrella/hat, shoes or chappals should be used while going out in sun
- Always carry water with you, while travelling or going outside
- In case you need to go and work outside, a hat or an umbrella is to be used. A damp cloth should be used to cover your head , neck and limbs. Caution workers to avoid direct sunlight.
- ORS, homemade drinks like lassi, rice water, lemon water, buttermilk etc should be taken as they rehydrate the body
- Be aware and recognize the signs and symptoms of heat stroke, heat hyperpyrexia, heat cramps, heat syncope etc. such as weakness, dizziness, headache, nausea, sweating and seizures etc.
- If you feel dizzy , faint or ill, immediately visit to a nearby health facility
- Keep your home cool, sunshades, curtains, shutters may be used for this purpose. Take bath in cold water, use of fan and damp clothing to keep yoUr body cool
- Give plenty of water to animals and keep them in shades

- Strenuous jobs may be scheduled for cooler times of the day . Provide cool drinking water near work place. Frequent and lengthy breaks for outdoor activities are also advisable
- Additional attention to be given to high risk group of people ie. Pregnant females, persons with medical conditions, old age and young children

**DONT's**

- Do not go outside in the sun, specially between 12:00 Noon and 3:00 PM
- Do not perform strenuous activities between 12 noon to 3 PM , when the outside temperature is high
- Do not wear dark, heavy and tight clothing
- Do not leave children or pets in parked vehicles
- Avoid cooking during peak hours
- Do not consume tea, coffee, carbonated soft drinks, which dehydrates body. Do not consume stale food and food with high protein content