

# Public Health Advisory: Extreme Heat/Heatwave

## Do's

### For general population

#### Stay hydrated:

- Drink sufficient water whenever possible, even if you are not thirsty. Thirst is not a good indicator of dehydration.
- Carry drinking water when traveling
- Use Oral Rehydration Solution (ORS), and consume homemade drinks like lemon water, butter milk/lassi, fruit juices with some added salt.
- Eat seasonal fruits and vegetables with high water content like water melon, musk melon, orange, grapes, pineapple, cucumber, lettuce or other locally available fruits and vegetables.

#### Stay covered:

- Wear thin loose, cotton garments preferably light coloured
- Cover your head: use umbrella, hat, cap, towel and other traditional head gears during exposure to direct sunlight
- Wear shoes or chappals while going out in sun

#### Stay alert:

- Listen to Radio; watch TV; read Newspaper for local weather news. Get the latest update of weather on India Meteorological Department (IMD) website at <https://mausam.imd.gov.in/>

#### Stay indoors/in shade as much as possible:

- In well ventilated and cool places
- Block direct sunlight and heat waves: Keep windows and curtains closed during the day, especially on the sunny side of your house. Open them up at night to let cooler air in.
- If going outdoor, limit your outdoor activity to cooler times of the day i.e., morning and evening
- Reschedule or plan outdoor activities during cooler parts of the day.

### For vulnerable population

Although anyone at any time can suffer from the heat stress & heat-related illness, some people are at greater risk than others and should be given additional attention.

These include:

- Infants and young children
- Pregnant women
- Physically ill, especially with heart disease or high blood pressure
- Travelers from colder climate to a hot climate should allow one week's time for their bodies to acclimatized to heat, avoid overexertion, and should drink plenty of water. Acclimatization is achieved by gradual increase (over 10-15days) in exposure/physical activity in hot environment
- People working outdoors
- People who have a mental illness

### Other precautions

- Elderly or sick people living alone should be supervised and their health monitored on a daily basis.
- Keep your home cool, use curtains, shutters or sunshade and open windows at night.
- Try to remain on lower floors during the day.
- Use fan, spray bottles, damp cloths, ice towels to cool down body.
- Immersing feet in 20°C water above ankle provides rapid cooling by reducing dehydration and thermal discomfort.

## Don'ts

- Avoid getting out in the sun, especially between 12:00 noon and 03:00 pm
- Avoid strenuous activities when outside in the afternoon
- Do not go out barefoot
- Avoid cooking during peak summer hours. Open doors and windows to ventilate cooking area adequately
- Avoid alcohol, tea, coffee and carbonated soft drinks or drinks with large amount of sugar- as these actually, lead to loss of more body fluid or may cause stomach cramps
- Avoid high-protein food and do not eat stale food
- Do not leave children or pets in parked vehicle. Temperature inside a vehicle could get dangerous.

## For Employers and workers

- Provide cool drinking water at work place and remind them to drink a cup of water every 20minutes or more frequently to stay hydrated
- Caution workers to avoid direct sunlight
- Provide shaded work area for workers. Temporary shelter can be created at work site.
- Schedule strenuous and outdoor jobs to cooler times of the day i.e., morning and evening hours
- Increase the frequency and length of rest breaks for outdoor activities- at least every 5 minutes after 1 hour of labour work
- Listen to Radio; watch TV; read Newspaper for local weather news and act accordingly. Get the latest update of weather on India Meteorological Department (IMD) website at <https://mausam.imd.gov.in/>
- Assign additional workers or slow down the pace of work
- Make sure everyone is properly acclimatized: it takes weeks to acclimatize to a hotter climate. Do not work for more than three hours in one day for the first five days of work. Gradually increase the amount and time of work.
- Train workers to recognize factors which may increase the risk of developing a heat related illness and the signs and symptoms of heat stress and start a “buddy system” since people are not likely to notice their own symptoms
- Trained First Aid providers should be available and an emergency response plan should be in place in the event of a heat-related illness.
- Pregnant workers and workers with a medical condition or those taking certain medications should discuss with their physicians about working in the heat.
- If working outdoors wear light-coloured clothing preferably long sleeve shirt and pants, and cover the head to prevent exposure to direct sunlight.
- Organize awareness campaigns for employees
- Install temperature and forecast display at the workplace.
- Distribute informational pamphlets and organize training for employers and workers regarding health impacts of extreme heat and recommendations to protect themselves during high temperatures.

## Precautions During Mass gathering/Sport event

- Outdoor/indoor crowded situations increase risk of acute heat-related illnesses (HRI) even in absence of active heatwave alerts in the area.
- Physical exertion, direct sun exposure, overcrowding, and difficult access to water, food and shade may worsen health in vulnerable groups.
- Attendees should stay hydrated, cool, be aware of HRI signs, symptoms and seek medical care.

# Health Impact of Heat: Heat-Related Illnesses

- Normal human body temperature ranges between 36.4°C to 37.2°C (97.5°F to 98.9°F)
- Exposure to high outdoor and/ indoor temperatures can induce heat stress, directly and indirectly, leading to heat-related illnesses
- Heat-related illnesses include (from mild to severe)–**heat rash** (prickly heat), **heat oedema** (swelling of hands, feet and ankles), **heat cramps** (muscle cramps), **heat tetany**, **heat syncope** (fainting), **heat exhaustion**, and **heat stroke**.
- Heat stress may also exacerbate chronic diseases like cardiovascular, respiratory, kidney diseases
  - *Watch out for symptoms of heat stress, which include:*
    - dizziness or fainting;
    - nausea or vomiting;
    - headache
    - extreme thirst
    - decreased urination with unusually dark yellow urine
    - rapid breathing and heartbeat

## Heat-related illnesses are preventable

If you or others feel unwell and experience any of above symptoms during extreme heat,

- Immediately move to a cool place and drink liquids. **Water is best.**
- Get help/medical attention
- Measure your body temperature

If you experience **painful muscular spasms** (particularly in the legs, arms or abdomen, in many cases after sustained exercise during very hot weather),

- Rest immediately in a cool place, and drink oral rehydration solutions containing electrolytes
- Medical attention is needed if heat cramps last more than one hour

## Heatstroke is a medical emergency!

Be aware of **Danger signs** & seek immediate medical attention if you observe

In adults	In children
<ul style="list-style-type: none"><li>• Altered mental sensorium with disorientation, confusion and agitation, irritability, ataxia, seizure or coma</li><li>• Hot, red and dry skin</li><li>• Core body temperature <math>\geq 40^{\circ}\text{C}</math> or <math>104^{\circ}\text{F}</math></li><li>• Throbbing headache</li><li>• Anxiety, Dizziness, fainting and light headedness</li><li>• Muscle weakness or cramps</li><li>• Nausea and vomiting</li><li>• Rapid heartbeat/Rapid, shallow breathing</li></ul>	<ul style="list-style-type: none"><li>• Refusal to feed</li><li>• Excessive irritability</li><li>• Decreased urine output</li><li>• Dry oral mucosa &amp; absence of tear/sunken eyes</li><li>• Lethargy/altered sensorium</li><li>• Seizures</li><li>• Bleeding from any site</li></ul>

**Call 108/102 immediately**  
if you find someone with  
**high body temperature** and is either  
**unconscious, confused, or**  
**has stopped sweating**

**Cool the person right away, while waiting, by:**

- moving them to a cool place, if you can;
- applying cold water to large areas of the skin or clothing; and
- fanning the person as much as possible