

1 KEY EXTREME WEATHER EVENTS DURING MONSOONS

Monsoons are seasonal winds that bring heavy rains from June to September in India. They are caused by the difference in temperature between land and sea, and are important for farming and water supply.

Additionally, retreating monsoons during the winter season are becoming more unpredictable, especially in regions like Tamil Nadu, Karnataka, Andhra Pradesh, Kerala with delayed onset and changes in intensity. Given below are some additional patterns that are being noticed in current times:

Changing Monsoon Patterns:

- Monsoons have been arriving later and departing earlier than expected.
- This affects cropping cycles leading to food insecurity, and also prolongs the summer heat.

Flooding and Urban Challenges:

- There has been a rise in incidents of flooding, especially around the coastal regions that are attributed to climate change.
- Improper planning in urban areas is also leading to a rise in flooding in cities.

Cyclones and Storms:

- Cyclones occur when hot air blowing over the seas rises, leading to cold air moving in and slowly forming a powerful column of wind and water.
- This leads to very heavy rains on reaching land, or "making landfall".

Weak Monsoons:

- Some monsoons are weaker than expected, leading to drought-like conditions.
- And again fail to provide relief from the summer heat.

2 WHO IS THE MOST AFFECTED?



Elderly, infants, children, and pregnant or postpartum women.



Homeless individuals and economically disadvantaged populations.



Migrants, slum dwellers, and those in informal settlements.



Persons with disabilities and those with chronic conditions (asthma, cardiovascular disease, diabetes, arthritis, malnutrition).



Outdoor workers (labourers, farmers, street vendors) and sanitation/waste workers.



Immunocompromised individuals (HIV, TB, cancer, transplant patients, hepatitis B/C, multiple sclerosis).



Residents of high-altitude or remote areas and coastal communities (including fisherfolk).



During flooding and heavy rainfall, some major diseases are caused by bacteria, viruses, parasites and vectors such as fleas and mosquitoes that we all need to watch out for and try to prevent. This section covers such diseases along with guidance on prevention and medical helo.



Contact-Based Infections:

Foot Ulcers

Painful sores on the feet caused by long exposure to dirty water or mud. People with diabetes, heart problems, or older adults are at higher risk.

Athlete's Foot

A fungal infection that happens mostly between the toes. Symptoms include itching, redness, dry or cracked skin, and sores

Eczema

A condition where the skin becomes dry, itchy, and red. Monsoon moisture can worsen eczema by increasing the risk of infections.



When to seek medical help

If you notice fever, pain, swelling, or sores on your skin.



Conjunctivitis (Pink Eye)

An infection causing red, itchy, and watery eyes, often with sticky discharge. In local languages, it is called Madras eye, aankh aana, or kalla kalaka.

Leptospirosis

A bacterial infection that spreads through contact with dirty water, soil, or food.

Symptoms include:

- Skin rashes (sometimes with bleeding).
- Yellowing of the skin or eyes.
- Severe muscle pain (in thighs, calves, or back).
- Fever, headache, tiredness, and confusion.

Prevention for skin infections during monsoons

- Avoid touching or walking in dirty water like puddles, ponds, or flooded areas.
- Wear proper footwear like rubber sandals or boots that can be washed and dried easily.
- Keep your feet dry and avoid wearing wet shoes or socks.
- Wear long-sleeved clothes and pants to protect your skin.
- Wash your hands with soap and water before eating or touching your face.
- ✓ Wash your eyes regularly to prevent eye infection.
- √ Vaccinate your pets to protect them from infections like leptospirosis, which can spread to humans.



RESPIRATORY INFECTIONS

These infections are spread through droplets of saliva or mucus from sneezing, coughing, nose blowing, talking or touching contaminated surfaces.







Cold & Flu

Runny nose, cough, sore throat, sneezing, headache, mild joint pain

Viral Fever

Fever, chills, sore throat, cough, runny nose, fatigue, muscle/joint pain, red or burning eyes, skin rash, breathlessness



What to do?

- Drink plenty of water and get rest.
- Eat healthy and vitamin rich foods including citrus fruits.
- ✓ Gargle with warm water.



When to seek medical help

for Cold and flu

If symptoms worsen or fever lasts more than 3-5 days.

for Viral Fever

If fever lasts more than a week.



Prevention for Cold, Flu, and Viral Fever

- ✓ Wash hands regularly with soap and clean water.
- ✓ Cover your mouth and nose with a tissue, elbow or mask when coughing or sneezing.
- ✓ Avoid visiting crowded public places to help prevent the spread.
- ✓ Get enough sleep and eat nutritious food to boost immunity.
- ✓ Clean and wash utensils and items used by sick individuals.
- ✓ Wash handkerchiefs and personal items regularly.
- Get vaccinated with the recommended flu vaccine (for children >6 months and adults).

WATERBORNE & FOODBORNE DISEASES

During the monsoon, water and food can easily get contaminated, leading to waterborne and foodborne diseases.

Diarrhea and Dysentery

Diarrhea and dysentery spread through contaminated food and water. **While mild** cases can be managed at home, severe diarrhea can be life-threatening, especially in malnourished individuals or those with chronic illnesses.





Diarrhea

Loose, watery stools, frequent bowel movements lasting for a few days $% \left\{ 1,2,\ldots,n\right\}$

Dysentery

Diarrhea with mucus and blood, abdominal pain, fatigue, loss of appetite, weight loss, chills and vomiting



What to do?



- Provide small, frequent, easily digestable, nutritious meals (5-6 times a day).
- ✓ Ensure the person gets enough rest.



- If symptoms persist for more than 4 days or worsen.
- In case of children: do not wait seek medical care immediately.



Cholera

Cholera is a **serious bacterial infection** that causes severe diarrhea and can be fatal within a day if untreated.



Illness



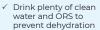
Profuse water

Cholera

Profuse watery diarrhea (resembles rice water), vomiting, leg cramps, severe dehydration



What to do?



 Follow the doctor's treatment plan strictly.



When to seek medical help

- If you have severe diarrhea and suspect cholera exposure, seek immediate treatment.
- Severe dehydration is a medical emergency requiring urgent care.



Learn how to make ORS at home on page no 14

Typhoid Fever

Typhoid is a **bacterial infection**, that spreads through contaminated food and water and can **cause severe illness if untreated.**

Illness



Typhoid Fever





- Cold, headache, sore throat, dry cough
- Fever fluctuates up and down reaching 104°F or more
- Vomiting, diarrhea, or constipation
- Inability to drink enough fluids

Week 2

- Fever with low pulse rate
- Pink spots on the body
- Shaking, not making sense while speaking, weakness, weight loss

Week 3

- Same symptoms as Week 1 and Week 2
- Symptoms gradually improve
- Prolonged high fever, fatigue, headache, nausea, abdominal pain, and constipation or diarrhoea
- Some patients may have a rash
- Fever is commonly lowest in the morning, peaking in the late afternoon or evening



What to do?

- Drink plenty of water, ORS, juices.
- Eat light nutritious food like khichdi.
- Take complete rest until fully recovered.



When to seek medical help

- Seek medical help if symptoms persist or worsen.
- If stool contains blood or severe abdominal pain develops.



Learn how to make ORS at home on page no 14

Jaundice

Jaundice is when your skin or the whites of your eyes turn yellow. It can be a sign of something serious, such as liver disease like Hepatitis, which requires **urgent medical help.**

Note: Jaundice can be caused by Hep A, Hep B, C, or leptospirosis. It is important to understand the cause of jaundice.

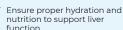
Illness





- Yellowing of skin, eyes, tongue, and gums
- Dark yellow or brown urine
- Pale or clay-colored stools
- · Fatigue, nausea, and loss of appetite





- ✓ Monitor symptoms such as vellowing of the skin and eves.
- ✓ For newborns, breastfeed frequently to help remove bilirubin



When to seek medical help

Seek immediate medical attention, especially when accompanied by fever, poor feeding, lethargy, highpitched crying, or unusual muscle tone in infants.

Hepatitis A

Hepatitis A is a viral infection that causes liver inflammation. It primarily spreads through contaminated food or water. Older adults are at a higher risk of severe illness and complications.





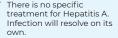


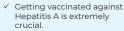
Hepatitis A

- Feve
- Malaise (general feeling of discomfort)
- Loss of appetite
- Diarrhea, nausea, and abdominal discomfort
- Dark-colored urine
- Jaundice (vellowing of the skin and eves)



What to do?





When to seek medical help

Consult a doctor immediately if you notice the symptoms.





Prevention from Waterborne Disease during Monsoons

- ✓ Drink only clean, boiled, or filtered water.
- √ Wash hands with soap before eating, after using the toilet, and when handling food.
- ✓ Eat freshly cooked food and avoid street food or raw. unclean items
- ✓ Maintain sanitation at home and use toilets instead of open defecation
- ✓ Wear footwear outside to prevent soil-borne infections.
- ✓ Get recommended vaccines before traveling and ensure routine vaccinations are up to date.
- ✓ Practice safe sex and maintain personal hygiene.

VECTORBORNE DISEASES

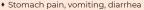
Internal Worms (Helminthic infections)

Worms enter the body through contaminated food, water, skin. or by walking barefoot. They can cause serious health issues, especially in children, leading to malnutrition and anemia.









- Itching and swollen belly
- Loss of appetite, tiredness
- Blood in feces or urine
- Poor physical and mental growth, especially in children





- Drink plenty of clean water and fluids.
- Wash hands with soap before eating. after using the toilet, and wash fruits and vegetables.
- ✓ Take doctor-recommended deworming pills once or twice a year.



When to seek medical help

As soon as you notice the above aiven symptoms.





Dengue

Dengue is a **viral illness transmitted by mosquitoes**, causing high fever, severe body pain, and rashes. It can be **life-threatening if not treated promptly**, especially with symptoms like bleeding or persistent vomiting.



Illness



Dengu

Symptoms

- High fever and chills (2-7 days)
- Severe body pain and headache (especially behind the eyes)
- Nausea, vomiting
- Skin rash
- Fatigue, restlessness, severe abdominal pain, rapid breathing, bleeding of nose, gums, blood in vomit and stool, seen more common in severe dengue

What to do?



- Plenty of water and juices for hydration.
- Avoid non-steroidal anti-inflammatory drugs for pain management.



When to seek medical help

- As soon as you notice dark spots on the skin or visible bleeding (nose, gums, urine, or stool).
- Continuous vomiting or severe stomach pain.
- Difficulty breathing or extreme weakness.
- Persistent high fever not improving with rest and fluids.

Chikungunya

Chikungunya is a viral infection transmitted by mosquitoes, causing symptoms like joint pain, fever, and rash. While it is rarely fatal, it can lead to prolonged joint pain and discomfort.

Illness





Muscle /Joint pain and swelling, vomiting, headache, fatigue, fever and rash



What to do

 Take plenty of rest and drink plenty of fluids.



When to seek medical help

- Consult a doctor if you experience these symptoms.
- Especially, when you recently travelled to a region with known chikungunya transmission.



Malaria

Malaria is a **mosquito-borne disease** caused by the Plasmodium parasite, leading to fever, chills, and sweating. **If left untreated, it can lead to severe complications, including organ failure and death.**



Illness





Malaria

Malaria progresses in three stages:

1. Chills 2. Fever 3. Sweating

Other common symptoms include:

- Runny nose, cough
- Signs of respiratory infection
- Diarrhea, skin rash and swelling of joints
- Seizures or loss of consciousness in severe cases



What to do?

- Do not rely on home remedies. Seek medical attention immediately.
- Visit a health facility for proper diagnosis and treatment.
- Monitor the patient's condition closely and follow medical advice.
- Refer to the general care section for tips on preventing malaria in your community.



When to seek medical help

- If you develop fever and chills, or experience severe symptoms like vomiting and dehydration.
- Early treatment is critical to prevent severe complications.

Lymphatic Filariasis

Lymphatic Filariasis (LF), or Elephantiasis, is a parasitic infection caused by roundworms that affect the immune and lymphatic systems. Transmitted by mosquitoes, it can damage the kidneys and immune system causing disability and social stigma.





Iliness

Lymphatic Filariasis



- Swelling in the limbs, genitals, or breasts. causing puffiness and heaviness
- Hardening and thickening of the skin, particularly in the legs, causing pain
- Swelling in the scrotum area for men





- Disinfect and cover any wounds.
- Elevate (raise) swollen arms or legs.
- ✓ Increase your activity level, (This can encourage the flow of lymphatic fluid.)
- √ Wash and dry swollen areas of your body dailv.
- √ Wear properly fitted shoes to reduce your risk of falling and getting injured.



When to seek medical help

If you develop unexplained swelling or thickening of your skin — particularly in vour arms, legs, breasts, scrotum or vulva.

Japanese Encephalitis

Japanese Encephalitis (JE) is a viral disease spread by mosquitoes. Transmission occurs year-round in tropical and subtropical areas but peaks during the rainy season and pre-harvest periods in rice-growing regions. Children under 15 years old are most at risk.







Japanese Encephalitis



 Severe symptoms: High fever, headache, stiff neck, confusion, seizures, paralysis, coma, and potentially death



What to do?



doctor as soon as you notice the symptoms.



When to seek medical help

- Urgent medical attention is needed for Japanese Encephalitis.
- There is no specific treatment, only supportive care to stabilize and relieve symptoms.

Prevention of Vectorborne diseases during monsoons:

- Remove stagnant water near homes and schools, as mosquitoes can breed in even small pools of water.
- Use mosquito nets and natural mosquito repellants*
 while sleeping and install screens or netting on doors
 and windows to keep mosquitoes out.
- Wear long-sleeved clothes, long pants, and socks when in areas with mosquitoes.
- Use mosquito coils or repellent to protect yourself.
 You can grow lemongrass plants to reduce mosquitoes.
- Keep infected individuals away from mosquitoes for the first three days of illness to prevent spreading diseases like Chikungunya and Dengue.
- ✓ Get vaccinated to protect yourself and your family against diseases like Japanese Encephalitis (JE).
- () *Solutions for natural mosquito repellents given on page number 15

4 GENERAL CARE

A. Take care of yourself

1. Drinking and hydrating for health

Drink only boiled or purified water to prevent waterborne diseases and stay hydrated.

Stay hydrated with herbal teas like ginger, pepper, honey, mint, and basil, which have antibacterial properties.

Limit coffee and tea intake, as excessive consumption can dehydrate the body.

Avoid food and drinks exposed to rainwater or those with a foul smell or taste.

Replenish lost salts and fluids by consuming ORS mixed with clean water.







How to make ORS at home?

Mix 6 teaspoons of sugar, and 1/2 teaspoon salt in 1 litre of clean water. Stir the mixture till the sugar dissolves. Consume it within 24 hours of preparing it.

2. Eating a healthy diet



Foods to Eat

Fruits: Apples, pomegranates, and seasonal fruits like jamun. Vitamin C-rich fruits such as amla, guava, orange, and papaya help boost immunity.

Vegetables: Opt for seasonal vegetables like gourds (bitter gourd, bottle gourd, ash gourd, ridge gourd, snake gourd), cucumbers, beans, radish, and ladies' finger. Wash thoroughly before consuming and try to eat only cooked vegetables and hot meals.

Grains & Legumes: Rice, oats, barley, corn, gram flour, and chickpeas are ideal for monsoon.

Proteins & Dairy: Prefer light meat preparations like stews and soups. Choose curd and almonds over milk for easy digestion and better gut health.

Herbs & Spices: Boost immunity with garlic, ginger, pepper, fenugreek, and methi seeds. Bitter herbs like neem and turmeric help prevent infections.

Foods to Avoid

Oily & Spicy Foods: These can cause indigestion, acidity, and inflammation, worsening conditions like hypertension and joint pain.

Raw & Pre-Cut Foods: Avoid raw food, street food and juices, and pre-cut fruits to prevent foodborne infections. Instead, consume cooked vegetables and fresh fruits

Seafood & Heavy Meat Dishes: Limit seafood due to risk of contamination and opt for light, easily digestible meat preparations.

3. Taking care of your emotional wellbeing

Monsoons impact mental health or emotional wellbeing through humidity-induced low moods, illness-related stress, past trauma triggering PTSD, worsened Seasonal Affective Disorder (SAD), and restricted mobility causing loneliness. Here are some through which you can take care of your emotional wellbeing



Get **natural light** by opening windows or stepping outside when possible.

Use warm lights, blankets, and soothing beverages for comfort.

Stay physically active with indoor exercise, yoga, or dance.

Maintain a consistent routine with set sleep, meals, and self-care time.

Stay connected with loved ones or support groups.

Practice self-care: warm oil massages, music, reading, meditation, or journaling.

Eat a **nutritious diet** rich in vitamin D to boost mood.

Help children by maintaining a routine and creating a safe, playful space.

4. Skin and body care

Moisturize with neem or coconut oil to keep skin hydrated; neem and eucalyptus oil also act as natural mosquito repellents.



Dip your feet in hot water to relieve congestion and headaches.

Wash hands frequently with soap and water to prevent infections.

Bathe daily with mild soap and water to keep skin clean and remove germs.

Treat cuts and wounds immediately to avoid infection. For bleeding wounds, apply pressure, rinse with saline or clean water, and wash with soap.

Avoid walking or swimming in floodwaters, which may contain sewage, chemicals, or animal waste. If unavoidable, wear protective boots and wash your feet thoroughly afterward.

Keep pets and livestock clean. Wash them if exposed to floodwater or mud, and vaccinate them against rabies or leptospirosis if possible.



5. Homecare

Disinfect floors with neem or eucalyptus oil to prevent germs spread.

Seal leaks with waterproof putty and coatings.

Ensure ventilation to reduce moisture and odors.

Remove fungus or stains on fabrics with vinegar or bleach.

Elevate valuables to prevent water damage.

Check wiring and wrap exposed cables to avoid electrical shocks.

Disinfect utensils exposed to floodwater with boiled or chlorinated water.

Prevent mosquito breeding by covering water containers, draining stagnant water, and using nets/screens.

B. Taking care of your livestock

- Provide clean drinking water and a mix of dry & green fodder for better milk yield
- ✓ Use alternative feeds like hay, silage, or UMMB if fodder is scarce.
- Avoid grazing during the rainy season to prevent infections.
- Deworm animals before and during monsoon.
- Vaccinate livestock against Hemorrhagic Septicemia(HS), Black Quarter(BS) and Foot and Mouth Disease(FMD).
- Dispose of carcasses safely by burning or deep burial.
- Repair sheds to prevent leaks and ensure ventilation.
- Spray insecticides to control parasites.
- Maintain hygiene by cleaning sheds regularly to prevent infections.



C. Taking care of your farms/field

- Apply organic mulch (straw, wood chips) to retain moisture, regulate temperature, and prevent soil erosion.
- ✓ Practice contour farming to slow water runoff and reduce soil erosion.
- Ensure proper drainage with well-designed channels to prevent waterlogging.
- Rotate crops to maintain soil health and break pest cycles.
- ✓ Adjust planting schedules to strengthen roots before heavy rains.
- ✓ Use cover crops or protective sheets to shield plants from rain and wind.
- ✓ Support tall or heavy crops with poles to prevent breakage.
- Manage diseases by using resistant varieties, proper spacing, and timely fungicides.
- Inspect fields regularly before, during, and after rains to address issues early.
- ✓ Consider crop insurance for financial protection against extreme weather.



5 FLOOD MANAGEMENT AND RESPONSE

- Ask local authorities to clean drains and manage garbage to prevent blockages.
- Dispose off waste quickly to avoid flies and disease.
- If in a low-lying area, monitor weather forecasts and evacuation alerts.
- Disconnect electrical appliances during floods to prevent shocks.
- Walk in still water, using a stick to check depth and ground stability.
- Return home only after authorities declare it safe.
- After flooding, let taps run for 5 minutes to flush impurities; clean bore wells before use.
- Stock essential medicines for family members with health conditions.



Make an emergency, waterproof kit. Include the following:

- Health & Safety: First aid kit, medicines, medical reports, prescriptions, chlorine tablets (use as per package instructions in clear water when boiling or safe sources aren't available), ORS packets (consume within 24 hours).
- Important Documents: IDs (ration card, Aadhaar, voter ID), certificates, deeds, vehicle papers in waterproof bag or container
- ✓ **Communication:** List of emergency contacts, phone, charger.
- ✓ Food & Water: Try to store enough drinking water about 5L per person per day if possible for at least 3 days. Also keep a 3-day supply of dry food (like biscuits) and any special items needed for babies, children, and the elderly.
- Hygiene & Protection: Face masks, soap/sanitiser, towels, personal hygiene items.
- ✓ Tools & Supplies: Torch, batteries, cups, plates, knife, scissors, strong ropes, candles and matches in a waterproof container.
- √ Valuables: Keep cash and essentials safe.

6 REACHING OUT TO HEALTHCARE PROFESSIONALS

Despite all the preventive steps and measures shared so far, there are times when you need professional health support in managing illness or disease.

- Seek medical attention for large, deep puncture wounds, infected wounds with redness or swelling, or if a tetanus booster is needed.
- If symptoms like fever, headache, cough, diarrhea, rashes, shortness of breath, confusion, or disorientation persist for more than 3-5 days after home care.
- Seek immediate help if someone has been electrocuted.
- If distress lasts for weeks, with symptoms like changes in appetite, energy, sleep issues, persistent headaches, body pains, stomach problems, skin rashes, or increased substance use, seek professional support.







If you are worried about illnesses, have doubts about your health and are unsure about visiting a doctor. Reach out to the nearest available:

ANM

ASHA workers

Anganwadi centre



In case of an Emergency reach out to your nearest:

ESI (Employees State Insurance)

Primary Healthcare Centre/ Community Healthcare Centres. If you don't have these in your community, reach out to the nearby district hospital.

For medicines prescribed by a doctor, reach out to the nearest Janaushadhi Kendra.



Stay Safe and Prepared during the Monsoon Season!

REMEMBER, PREPAREDNESS IS KEY

