

MINISTRY OF AYUSH
Government of India

Background

El Nino conditions increase the likelihood of a wide range of extreme weather events, including droughts, floods, hurricanes, and heatwaves, all of which pose significant risks to human health. Droughts and floods can disrupt food production, leading to food insecurity and malnutrition, which in turn increases susceptibility to infectious diseases. These events also create favorable conditions for outbreaks of water-borne and vector-borne diseases. In addition, prolonged hot and dry conditions associated with El Nino can trigger heat waves, wildfires, and worsening air quality due to increased smoke, thereby causing or aggravating respiratory illnesses and heat-related stress.

India's traditional healthcare system delivers evidence-informed, preventive measures designed to reinforce human biological resilience against environmental fluctuations. By mobilizing the unified knowledge of Ayush systems, the Ministry of Ayush advocates for practical, non-pharmacological lifestyle and community interventions. These recommendations do not replace but actively support the foundational public health mechanisms deployed by the Ministry of Health & Family Welfare (MoHFW), the National Centre for Disease Control (NCDC), and the National Disaster Management Authority (NDMA).

General health impacts

1. **Heat Stress and Heat Stroke:** Prolonged high temperatures during El Niño conditions increase the risk of heat exhaustion, heat stroke, dehydration, fatigue, reduced work capacity, and exacerbation of pre-existing illnesses, particularly among vulnerable populations.
2. **Vector-Borne Diseases:** Changes in temperature, humidity and rainfall may favor mosquito breeding and increase the transmission of diseases such as dengue, chikungunya, malaria and Japanese encephalitis.
3. **Water-Borne Diseases:** Flooding, water scarcity and disruption of water and sanitation systems may increase the risk of acute diarrhoeal diseases, cholera, typhoid, hepatitis A and E, and other gastrointestinal infections.
4. **Respiratory Health issues:** ENSO-linked droughts increase the risk of wildfires and dust storms and resulting smoke and particulate pollution can aggravate respiratory illness, particularly among children, the elderly and persons with pre-existing airway disease.
5. **Mental Health and Psychosocial distress:** Extreme weather events may contribute to stress, anxiety, sleep disturbances, and psychosocial distress due to disruption of livelihoods, displacement, and other climate-related impacts.
6. **Nutritional imbalance:** Climate-related disruptions in agriculture and food supply may increase the risk of under-nutrition and micronutrient deficiencies, particularly among vulnerable populations.

General Preventive Measures

- Avoid direct sunlight, especially between 12:00 noon and 3:00 PM, and limit strenuous outdoor activities during peak heat hours.
- Wear loose-fitting, light-colored cotton clothing and protect your head with a cap, hat, umbrella, or cotton cloth when outdoors.

- Drink adequate amounts of safe drinking water and maintain good hydration; use Oral Rehydration Solution (ORS) during diarrhea or febrile illnesses as advised.
- Eat freshly prepared, well-cooked, easily digestible, seasonal foods; avoid stale, contaminated, processed, fried, spicy foods, alcohol, sugary drinks, and excessive tea or coffee.
- Maintain good personal hygiene by washing hands with soap and safe water, drinking treated water, storing water safely, and ensuring proper sanitation and waste disposal.
- Eliminate stagnant water around homes and workplaces and use mosquito nets, repellents, window screens, and protective clothing to prevent mosquito-borne diseases.
- Keep indoor environments clean, cool, well-ventilated, and minimize exposure to smoke, dust, and poor air quality; avoid outdoor exertion during such conditions.
- Ensure adequate rest, regular sleep, balanced nutrition, and appropriate physical activity; avoid overexertion.
- Support mental well-being through family and community support, relaxation techniques, and Yoga; pay special attention to vulnerable groups, including children, older adults, pregnant and lactating women, and people with chronic illnesses.
- Participate in community sanitation, vector control, nutrition awareness, and kitchen garden initiatives wherever feasible.
- Seek prompt medical attention for persistent fever, diarrhoea, vomiting, dehydration, rash, severe joint pain, respiratory symptoms, heat stroke symptoms (high body temperature, dizziness, confusion, fainting), or persistent psychological distress.

Seasonal regimen

- ***Greeshma Ritucharya (Summer Season; mid-May to mid-July):*** Follow a cooling regimen with light, easily digestible, hydrating foods. Include *Samba rice*, green gram, *Amla* (Indian gooseberry), *Patola/Pudulagai* (snake gourd), and other seasonal foods.
- ***Varsha Ritucharya (Rainy Season):*** Consume warm, freshly prepared, easily digestible meals with predominantly sweet, sour and salty tastes. Prefer aged rice, barley, wheat and pulses, along with herb-spiced buttermilk, warm water, honey water (where appropriate), and herb-infused water. Moderate regular physical activity is advised, while avoiding heavy, difficult-to-digest foods.

Specific Measures / Symptom Management

Health Conditions	Dietary & Lifestyle measures
Heat Stress and Heat Stroke	• Increase intake of cooling fluids such as buttermilk, coconut water, rice gruel and traditional cooling beverages (lemon, raw mango, tamarind, <i>Nannari/Sariba</i> (Indian Sarsaparilla), Indian gooseberry). • Consume light, cooling foods and avoid alcohol, excess caffeine and spicy or fried foods.

	• Yoga: <i>Tadasana, Makarasana</i> • Pranayama: <i>Sheetali or Sheetkari</i>
Vector borne diseases	• Use medicated drinking water where appropriate; maintain environmental hygiene and complementary traditional fumigation practices (<i>Neem, Guggulu, Aparajita, Siddha Pugai</i>) to reduce mosquito exposure.
Water-borne Diseases	• Drink boiled and cooled safe water; consume warm freshly prepared light meals and oral fluids; include digestive spices (ginger, cumin, turmeric, garlic etc.) appropriately; maintain hydration during diarrhoeal illness.
Respiratory Health issues	• Drink warm water or herbal infusions. • Traditional home remedies such as dry ginger with jaggery, turmeric milk (golden milk) or <i>Tulsi</i> juice with honey may be used for mild cold and cough. • Steam inhalation and warm saline/turmeric gargling may be used for symptomatic relief. • Yoga: <i>Bhujangasana, Gomukhasana</i> • Pranayama: <i>Nadi Shodhana and Bhramari</i>
Mental Health and Psychosocial well-being	• Ensure adequate sleep, regular physical activity, social connectedness, Yoga and meditation. • Yoga: <i>Shashankasana (or Bhadrasana), Shavasana</i> • Pranayama: <i>Nadi Shodhana, Shitali and Bhramari</i>

Community-based Public Health Measures

- Community fumigation with *Aparajita Dhoopa* or *Dhoopa* containing *Guggulu* and *Nimba* may be used as a complementary vector control measure.
- *Inji Then* (honey-soaked ginger), and *Panja Karpa* Bath powder may support preventive health practices.
- *Bakhūr* (medicated fumigation) using substances such as *Loban, Kafoor, Sandal, Ood*, and *Kundur* may support indoor air purification and environmental hygiene; use only in well-ventilated areas and avoid excessive smoke exposure in vulnerable groups.
- Traditional mosquito and insect control: Plant-based measures such as *Roghan Neem, Nigella sativa, Peganum harmala, Pinus roxburghii*, and *Myrtus communis* may be used traditionally for mosquito and insect repellent effects.

Protection of Vulnerable Populations

- **Vulnerable groups (children, older adults, pregnant/lactating women, and individuals with chronic diseases):** Prioritise protection from heat, safe hydration, adequate nutrition, hygiene, continuation of prescribed treatment, and early medical consultation when required.
- **Children:** Ensure safe food and water, adequate hydration and nutrition, timely medical care, supervised outdoor activities, and age-appropriate Yoga.

- **Pregnant and lactating women:** Consume fresh, warm, easily digestible foods, maintain adequate hydration, attend regular antenatal care, and avoid self-medication.
- **Older adults:** Support vitality, digestion, cardiovascular and cognitive health with suitable *Ayush Rasayana* or restorative formulations, where appropriate, gentle Yoga, relaxation, hydration reminders, and monitoring of chronic conditions.
- **Yoga precautions:** Practices should be gentle and individualised, avoid excessive exertion, heat exposure, forceful pranayama, breath retention, and contraindicated postures in vulnerable individuals.

When to Seek Immediate Medical Care

Seek immediate medical care if any of the following occur:

- Body temperature above 40°C with altered mental status
- Persistent vomiting
- Severe dehydration
- Bloody diarrhea
- Difficulty in breathing
- Convulsions or unconsciousness
- Severe weakness
- Dengue warning signs: severe abdominal pain, persistent vomiting, bleeding or lethargy
- Any rapidly worsening illness

Disclaimer: *This advisory is intended for preventive and health-promotive purposes only. It does not replace medical diagnosis, treatment, or emergency care by a qualified registered medical practitioner. Individuals experiencing severe or persistent symptoms should seek immediate medical attention. Ayush interventions should be undertaken under the supervision of a registered Ayush practitioner, as appropriate.*

**Issued in Public Interest by
Ministry of Ayush, Government of India**

This technical advisory complements standard emergency public health notices managed by MoHFW, NCDC, and NDMA.

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Introduction

El Nino conditions increase the likelihood of a wide range of extreme weather events, including droughts, floods, hurricanes, and heatwaves, all of which pose significant risks to human health. Droughts and floods can disrupt food production, leading to food insecurity and malnutrition, which in turn increases susceptibility to infectious diseases. These events also create favorable conditions for outbreaks of water-borne and vector-borne diseases. In addition, prolonged hot and dry conditions associated with El Nino can trigger heatwaves, wildfires, and worsening air quality due to increased smoke, thereby causing or aggravating respiratory illnesses and heat-related stress.

Ayush systems can contribute significantly to climate-resilient healthcare through preventive, promotive, curative, and rehabilitative interventions integrated with standard public health measures and timely referral.

Objectives

These guidelines aim to:

- Strengthen preparedness of Ayush practitioners during El Niño conditions
- Promote evidence-informed holistic healthcare
- Support community-based public health interventions
- Provide disease-specific Ayush interventions and management
- Facilitate early recognition and referral of severe cases
- Strengthen integration with national public health programmes.

Health Impacts of El Niño

1. **Heat Stress and Heat Stroke:** Prolonged high temperatures during El Niño conditions increase the risk of heat exhaustion, heat stroke, dehydration, fatigue, reduced work capacity, and exacerbation of pre-existing illnesses, particularly among vulnerable populations.
2. **Vector-Borne Diseases:** Changes in temperature, humidity and rainfall may favor mosquito breeding and increase the transmission of diseases such as dengue, chikungunya, malaria and Japanese encephalitis.
3. **Water-Borne Diseases:** Flooding, water scarcity and disruption of water and sanitation systems may increase the risk of acute diarrheal diseases, cholera, typhoid, hepatitis A and E, and other gastrointestinal infections.
4. **Respiratory Health Issues:** ENSO-linked droughts increase the risk of wildfires and dust storms and resulting smoke and particulate pollution can aggravate respiratory illness, particularly among children, the elderly and persons with pre-existing airway disease.
5. **Mental Health and Psychosocial distress:** Extreme weather events may contribute to stress, anxiety, sleep disturbances, and psychosocial distress due to disruption of livelihoods, displacement, and other climate-related impacts.
6. **Nutritional imbalance:** Climate-related disruptions in agriculture and food supply may increase the risk of under-nutrition and micronutrient deficiencies, particularly among vulnerable populations.

General Preventive Measures

- Avoid direct sunlight, especially between 12:00 noon and 3:00 PM, and limit strenuous outdoor activities during peak heat hours.
- Wear loose-fitting, light-colored cotton clothing and protect your head with a cap, hat, umbrella, or cotton cloth when outdoors.
- Drink adequate amounts of safe drinking water and maintain good hydration; use Oral Rehydration Solution (ORS) during diarrhea or febrile illnesses as advised.
- Eat freshly prepared, well-cooked, easily digestible, seasonal foods; avoid stale, contaminated, processed, fried, spicy foods, alcohol, sugary drinks, and excessive tea or coffee.
- Maintain good personal hygiene by washing hands with soap and safe water, drinking treated water, storing water safely, and ensuring proper sanitation and waste disposal.
- Eliminate stagnant water around homes and workplaces and use mosquito nets, repellents, window screens, and protective clothing to prevent mosquito-borne diseases.
- Keep indoor environments clean, cool, well-ventilated, and minimize exposure to smoke, dust, and poor air quality; avoid outdoor exertion during such conditions.
- Ensure adequate rest, regular sleep, balanced nutrition, and appropriate physical activity; avoid overexertion.
- Support mental well-being through family and community support, relaxation techniques, and Yoga; pay special attention to vulnerable groups, including children, older adults, pregnant and lactating women, and people with chronic illnesses.
- Participate in community sanitation, vector control, nutrition awareness, and kitchen garden initiatives wherever feasible.

Seasonal regimen

- **Greeshma Ritucharya (Summer Season; mid-May to mid-July):** Follow a cooling regimen with light, easily digestible, hydrating foods. Include *Samba rice*, *green gram*, *Amla* (Indian gooseberry), *Patola/Pudulagai* (snake gourd), and other seasonal foods.
- **Varsha Ritucharya (Rainy Season):** Consume warm, freshly prepared, easily digestible meals with predominantly sweet, sour and salty tastes. Prefer aged rice, barley, wheat and pulses, along with herb-spiced buttermilk, warm water, honey water (where appropriate), and herb-infused water. Moderate regular physical activity is advised, while avoiding heavy, difficult-to-digest foods.

General Clinical Approach

1. **Risk Assessment:** Identify vulnerable populations including elderly, children, pregnant women, chronic disease patients, outdoor workers, migrant populations

2. Clinical Assessment: Assess hydration status, nutritional status, fever, respiratory symptoms, diarrhoea, mental health status and identify red-flag signs requiring referral.

3. Red Flag Signs Requiring Immediate Referral, such as:

- Heat stroke with altered consciousness
- Severe dehydration or shock
- Persistent vomiting
- Bleeding manifestations
- Breathlessness or oxygen saturation <94% (where available)
- Convulsions or altered sensorium
- Severe abdominal pain
- Unconsciousness
- Rapidly worsening illness

Ayush practitioners should initiate appropriate supportive care within their scope of practice while ensuring timely referral and coordination with the nearest appropriate healthcare facility.

Disease specific Measures / Symptom Management

Health Conditions	Prophylactic Measures
Heat Stress and Heat Stroke	• <i>Nimbukaphala Panaka, Amra Prapanaka, Chinch Panaka</i> (50–100 ml as required). • <i>Nannari/Sariba</i>(Indian Sarsaparilla) <i>Paanagam</i>; Gooseberry infused Buttermilk (1–2 times/day). • <i>Sharbat Unnab/Sharbat Sandal/Sikanjabeen</i> (20–30 ml diluted with potable water); <i>Khamira Marwareed</i> (3–5 g). • <i>Glonoine 30C</i> -one dose (6 pills) before sun exposure during peak heat hours. • Supervised <i>tepid sponging or neutral baths</i> may be used as supportive cooling measures.
Vector borne diseases	• <i>Shadangapaniya</i> as drinking water; <i>Shunthi/Dhanyaka/Jeera Siddha Jala</i>; <i>Samshamani Vati</i> 500 mg twice daily. • <i>Nilavembu Kudineer</i> 30–50 ml once daily; <i>Kabasura Kudineer</i> 30–50 ml once daily; <i>Thiripalai Water</i>. • <i>Sharbat Anar Shirin</i> 25–50 ml; <i>Khamira Marwareed</i> 3–5 g; <i>Raughan Neem/Kamila</i> (external application as mosquito repellent). • <i>Eupatorium perfoliatum 30C</i> (Dengue), <i>Bryonia alba 30C</i> (Chikungunya), <i>Belladonna 200C</i> (JE/AES), <i>Chininum sulphuricum 30C</i> (Malaria) (as per standard schedule).
Water-borne Diseases	• <i>Shunthi/Dhanyaka/Jeera Siddha Jala</i>; <i>Samshamani Vati</i> 500 mg twice daily.

	• <i>Thiripalai Water; Panchamutti Kanji; Nerpori Kanji; Chukku Kanji.</i> • <i>Jawarish-i-Anarayn 7 g; Jawarish Mastagi 5–9 g with Arq Badyan (144 ml); Khamira Marwareed 5 g twice daily.</i> • <i>Camphora 30C; Baptisia tinctoria 30C</i> (as per standard schedule).
Respiratory Health issues	• <i>Thaleesapatradi Choorna 2–4 g daily; Chyavanprash 1 tsp daily; Ayush Kwath 3 g powder in 300 ml water once daily; Anutaila 2 drops in each nostril daily (when there is no Upper Respiratory Tract Infection).</i> • <i>Thalisathi Chooranam 1–2 g twice daily; Thalisdhi Vadagam 1–2 tablets; Adathodai Kudineer 30–60 ml; Karpoorathy Thailam</i> (external). • <i>Tiryāq Nazla 5 g twice daily; Laʿūq-i-Sapistān 6–12 g twice daily; Sharbat-i-Şadr 25 ml twice daily.</i> • <i>Arsenicum album 30C</i> – one dose weekly during risk period.
Mental Health and Psychosocial well-being	• <i>Ashwagandha Choorna, Shankhapushpi Choorna, Brahmi Swarasa</i> (under Medical Supervision) • <i>Amukkara Chooranam 500 mg – 1gram, twice daily; Brahmi Nei 10–15 ml twice daily; Seeraga Thylam</i> (external). • <i>Khamira Gaozaban, Khamira Marwareed, Itrifal Ustukhuddus, Majoon Najah</i> (under Medical Supervision). • Daily Yoga, Pranayama and relaxation techniques • <i>Aconitum napellus 30C</i> -single dose for acute fear/panic; repeat only if advised by physician.

Protection of Vulnerable Populations

- **Vulnerable groups (children, older adults, pregnant/lactating women, and individuals with chronic diseases):** Prioritise protection from heat, safe hydration, adequate nutrition, hygiene, continuation of prescribed treatment, and early medical consultation when required.
- **Children:** Ensure safe food and water, adequate hydration and nutrition, timely medical care, supervised outdoor activities, and age-appropriate Yoga. *Rajanyadi Choorna, Uramarunnu* may be considered under the supervision of qualified Ayurveda physician.
- **Pregnant and lactating women:** Consume fresh, warm, easily digestible foods, maintain adequate hydration, attend regular antenatal care, and avoid self-medication.

- **Older adults:** Support vitality, digestion, cardiovascular and cognitive health with suitable *Ayush Rasayana* or restorative formulations, where appropriate, gentle Yoga, relaxation, hydration reminders, and monitoring of chronic conditions.
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- Traditional mosquito and insect control: Plant-based measures such as *Roghan Neem*, *Nigella sativa*, *Peganum harmala*, *Pinus roxburghii*, and *Myrtus communis* may be used traditionally for mosquito and insect repellent effects.

Documentation and Reporting

- Notify suspected outbreaks of vector-borne and water-borne diseases through the appropriate public health surveillance system.
- Maintain records of cases managed and referred.
- Coordinate with District Health Authorities, Integrated Disease Surveillance Programme (IDSP), and local public health officials.
- Participate in community awareness and Information, Education & Communication (IEC) activities during El Niño conditions.
- Follow the latest advisories, guidelines, standard treatment protocols, and reporting requirements issued from time to time by the Ministry of Health & Family Welfare (MoHFW), Ministry of Ayush, National Centre for Disease Control (NCDC), State/UT Health Departments, and other competent authorities, as applicable.

Disclaimer: *This guideline is intended for preventive, promotive, curative, and public health purposes for use by qualified Ayush practitioners. It complements, but does not replace, standard clinical management, emergency care, or national public health protocols. Ayush interventions should be provided within the registered practitioner's scope of practice and under applicable regulatory provisions.*

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