

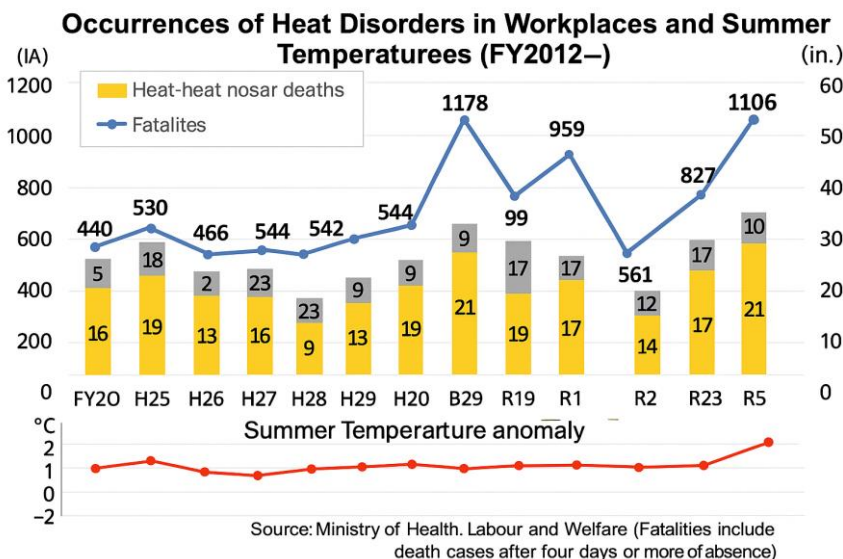
Health Bulletin

Mandatory Measures for Heat Stroke Prevention



The government has analyzed that neglecting early symptoms or delays in response are key factors leading to severe heat stroke cases, and has therefore determined that stronger countermeasures are necessary.

Summer Temperatures and the Incidence of Heat Stroke in the Workplace (2012-)



2024 Workplace Heat Stroke Incidents in Japan

The number of casualties requiring four or more days of leave reached **1,195**, the highest on record. **19% (227 people)** of cases occurred in the **manufacturing industry**, followed by:

- **Construction industry: 18%**
- **Transportation industry: 16%**
- **Security industry: 11%**

Approximately 80% of all cases occurred in **July and August**.

The number of **deaths remained high at 30**, consisting of **27 men and 3 women**.

Overview of Fatal Heat Stroke Incidents

26 cases: Unable to confirm if the Wet Bulb Globe Temperature (WBGT) index was monitored.
 21 cases: Inadequate awareness or confirmation of emergency response procedures at the time of onset or during emergencies.
 15 cases: Lack of occupational health education related to heat stroke prevention.
 18 cases: Presence of underlying health conditions such as diabetes or hypertension, which may contribute to the onset of heat stroke.

→ **Most Fatal Heat Stroke Incidents Are Caused by Overlooking Early Symptoms or Delayed Response**
 In other words...

Recognizing the signs early and responding promptly can prevent severe outcomes!

Heat stroke is about 5 to 6 times more likely to result in death compared to other occupational accidents.

If Heat Stroke Occurs During Work and Is Recognized as Work-Related, It Will Be Covered by Workers' Compensation Insurance
 When heat stroke is determined to be work-related, the incident is officially recognized as an occupational accident, and the employee is eligible to receive medical expenses and compensation for lost wages under the workers' compensation insurance system.

Basic Guidelines on Heat Stroke Prevention

Published: April 15, 2025

Effective: June 1, 2025

What are the conditions for mandatory measures?

WBGT of 28°C or higher

or

Air temperature of 31°C or higher

Continuous work for over 1 hour or Work for over 4 hours in a day

△□ The type of work, work content, or whether it is indoors or outdoors is not considered. Even field sales representatives may fall under the applicable conditions.

1. Establishing a Reporting System

When symptoms or suspected cases of heat stroke occur, a clear system for reporting must be in place.

- Develop an emergency contact network and assign responsible personnel.
- Recommendation: Actively implement measures to identify workers with symptoms of heat stroke, such as: Workplace patrols
- Buddy system
- Regular two-way communication
- Use of wearable devices (e.g., smartwatches)

2. Establishing Procedures to Prevent Severe Heat Stroke

Develop specific measures and procedures to ensure prompt and accurate decision-making in the event of heat-related symptoms.

3. Notification to Relevant Personnel

Ensure prior notification regarding the following:
 The risk of heatstroke associated with specific tasks and work environments.
 The reporting system and emergency response procedures (see ① and ②).
 Note: This includes not only directly employed workers, but also others engaged in similar work environments.

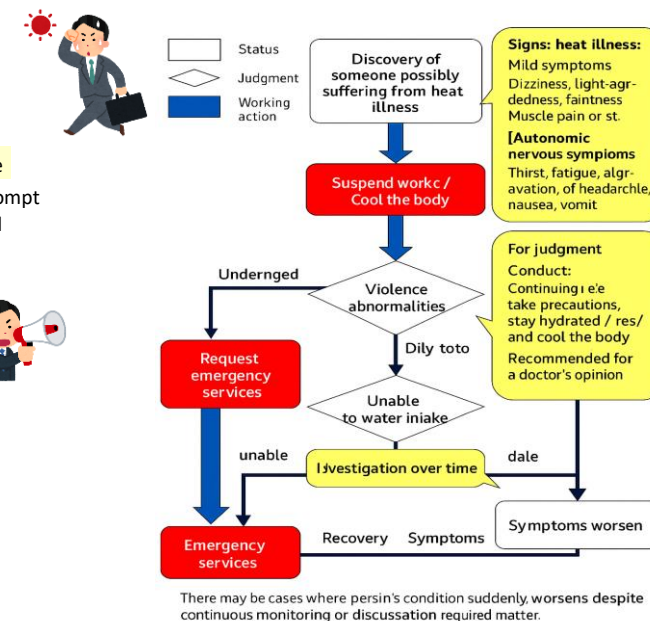
- Elevated body temperature leads to blood vessel dilation
- Dehydration causes a drop in blood pressure and cerebral blood flow
- Excessive sweating reduces sodium levels in the blood

© Penalty

If an employer fails to implement the required heat stroke prevention measures, they may be subject to up to 6 months of imprisonment or a fine of up to 500,000 yen.

Creating an Environment Where People Can Speak Up About Feeling Unwell Is Extremely Important

By communicating regularly, it becomes easier to notice changes in each other's condition and respond quickly when something seems off.



What is the Heat Index WBGT (Wet Bulb Globe Temperature)?

WBGT is an index proposed in the United States in 1954 with the goal of preventing heatstroke. The background to its development was a series of fatal heatstroke incidents that occurred among soldiers during training.

Air Temperature (10%)

Temperature alone is not sufficient to assess heatstroke risk, so humidity and radiant heat are also considered.

Wet Bulb Temperature (Humidity Influence – 70%)

Humidity plays the largest role. When humidity is high, sweat doesn't evaporate easily, making the body more prone to heatstroke.

Globe Temperature (Radiant Heat Influence – 20%)

Radiant heat is the heat transmitted from objects such as the sun, buildings, the ground, or even human bodies—even if they are not in direct contact.

WBGT Risk Categories (Example)	
Danger (31°C and above)	High risk even at rest, especially for the elderly. Avoid all physical activity due to high risk of heatstroke.
Severe Warning (28°C to under 31°C)	Avoid going out in the sun; watch for indoor heat buildup. Avoid intense activity like running. Take breaks every 10–20 minutes and rehydrate with water and salt.
Warning (25°C to under 28°C)	Ensure frequent breaks. Hydrate every 30 minutes with water and appropriate salt intake.
Caution (Below 25°C)	Even under moderate exertion, there is a risk of heatstroke. Stay alert to conditions and rehydrate frequently with water and salt.

Note: Although the unit is Celsius (°C), the WBGT value is different from air temperature.

The Wet Bulb Globe Temperature (WBGT) from approximately 840 observation points across Japan can be checked on the *Heat Illness Prevention Information Site* (Ministry of the Environment).

Heat Stroke Emergency Alert Status: <https://www.wbgt.env.go.jp/wbgt.php>

Why does heatstroke occur?

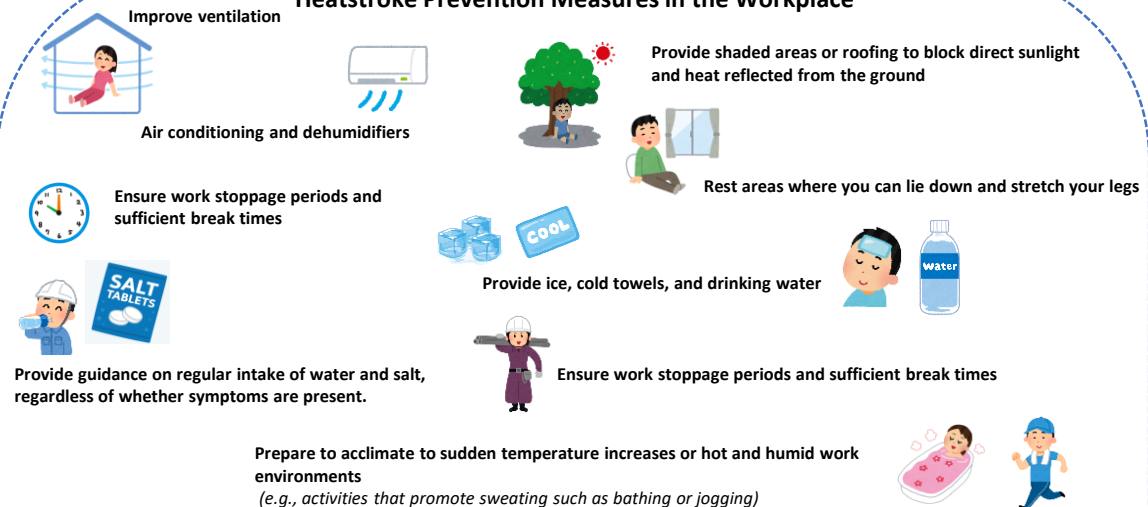
Our bodies regulate temperature by sweating when it's hot—as the sweat evaporates, it removes heat and cools us down. However, when the air temperature is too high, sweating alone may not be enough. And when humidity is high, sweat doesn't evaporate properly, so the body can't cool down. If body temperature remains elevated and the body loses too much water through excessive sweating, various symptoms of heatstroke can occur.

What is voluntary dehydration?

When you sweat heavily, drinking only water can sometimes lead to dehydration. Sweat contains sodium, so when you sweat, you lose both water and salt from your body. If you only replace the water, the sodium concentration in your blood becomes diluted, causing your body to think, "no more water is needed." As a result, your body tries to restore the original salt balance by excreting the water as urine, which can actually lead to dehydration.

If even tough Marines recognize the danger, then we need to be even more cautious.

Heatstroke Prevention Measures in the Workplace



Work Environment Management



- Conduct regular patrols during work
- Create checklists to monitor hydration and other measures

Note: Due to aging or medical conditions, some individuals may not recognize the symptoms of dehydration. In addition, some people may have dietary restrictions on salt intake. Please consult your primary care physician or occupational health doctor and follow their guidance.

Work Management

If any abnormalities are found during a health checkup or if the worker has an ongoing medical condition, seek a doctor's opinion and, if necessary, take appropriate measures such as changing the work location or reassigning tasks.

Health Management

Provide guidance and consultation on daily health management factors that may increase the risk of heatstroke.

- Check for signs of poor physical condition, lack of sleep, alcohol consumption the previous day, or skipping breakfast.
- Assess workers' health conditions before starting work and communicate regularly during tasks.
- Encourage mutual awareness of each other's health conditions.
- Install thermometers and blood pressure monitors to help monitor physical condition.

Occupational Health Education

- Symptoms of heatstroke
- Methods of prevention
- Emergency first aid measures
- Case studies of heatstroke incidents

Heatstroke can occur under various environmental conditions.

To prevent it, it is important to develop the habit of constantly being aware of the heatstroke risk in your surroundings.