



The role of Public Health in Heat stress and related illnesses

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Introduction

- **Heat stress** is a major concern in Qatar due to the country's location in the Middle East, where temperatures can **raise up to 50 °C** in the summer months.
- It occurs when the body can no longer control its temperature. The body's temperature rises rapidly to 41°C or higher within 10 to 15 minutes. The sweating mechanism fails, and the body is unable to cool down.
- With **the effects of climate change**, the situation stands to worsen as the region is expected to experience **more extreme and prolonged heatwaves in the coming years**.





Climate and Weather of Qatar

1. Qatar has a desert climate

2. The country experiences long summers from May to September with temperatures ranging **from 33°C to 50°C** with relative humidity up to **100%**.
3. This climate creates a **potentially dangerous situation** for those exposed to the heat.
4. According to **WHO**, the **frequency**, **magnitude**, and **duration** of extreme heat is **increasing globally**.
5. The number of people at risk of heat illnesses increased by approximately **125 million** between the years **2000** and **2016**.





Current Situation

- Qatar played an excellent **role in decreasing the heat related illnesses** in workers
- Most of the cases managed in the Emergency Department at Hamad Medical Corporation HMC and in the Health workers centers affiliated with the Qatar Red Crescent QRC are **not complicated** and **treated quickly**. **No death cases** were recorded
- The signing of the **agreement** between the Ministry of Public Health and the Ministry of Labor for the Data exchange of work-related injuries data was very helpful
- An Annual **heat stress prevention training program** has been developed and implemented,





Vulnerable Working Groups

- Outdoor workers
- Construction workers
- Athletes
- Military personnel





Vulnerable Working Areas

- Construction
- Agriculture
- Infrastructure
- Service sectors





Prevention of the Heat stress *(Continued)*

Government Measures:

- In 2019, ADLSA, ILO, the Supreme Committee for Delivery and Legacy, and the FAME Laboratory (University of Thessaly, Greece) have conducted a study to tackle the problem. The government in Qatar has then implemented the following measures:
 - Adjusting **work schedules**
 - Enforcing **mandatory breaks** for outdoor workers during the hottest periods of the day
 - Ensuring **rest periods**
 - Using **personal protective equipment**
 - Providing **access to air-conditioned rooms** for workers
 - Developing **advanced cooling technologies** for outdoor spaces, such as outdoor stadiums and malls





Legal Framework and Regulations

- Qatar has developed a comprehensive legal framework to address heat stress and ensure the protection of workers. The country has established the following regulations:

- **The Qatari Labor Law:**

The Labor Law includes provisions related to **occupational health and safety**, including **heat stress prevention**. It mandates that employers must provide a **safe working environment** and take **necessary measures** to **protect** workers from extreme heat.

- **Qatar Occupational Health and Safety Standards:** The Ministry of Labour has issued specific **standards** and **guidelines** regarding heat stress management, which employers must adhere to.



Legal Framework and Regulations *(Continued)*

In 2021, the Ministerial Decision (26 May 2021) introduces a significant expansion of summertime working hours during which outdoor work is prohibited.

- Under the new rules, **workers cannot work outside between 10:00 and 15:30 from 1 June to 15 September.**
- In addition, regardless of the time, **all work must stop if the wet-bulb globe temperature (WBGT) rises beyond 32.1°** in a particular workplace. The WBGT index takes into consideration ambient temperature, humidity, solar radiation and wind speed.
- In the occasion of the **FIFA World Cup 2022**, Qatar has taken multiple measures that have **improved the working and living conditions** for hundreds of thousands of workers



**FIFA WORLD CUP
Qatar2022**



Heat Stress Management Measures

Qatar has implemented several measures to improve the protection of workers from heat stress. These measures include:

Heat Stress Awareness Campaigns:

The government, in collaboration with the Ministry of Labour and other relevant organizations, has conducted **extensive awareness campaigns** to educate **workers** and **employers** about the risks associated with heat stress. These campaigns emphasize the importance of **preventive measures** and the signs and symptoms of heat-related illnesses.

Heat Stress Training:

Employers are required to provide **training** to workers on **heat stress management**. This training includes information on recognizing signs of heat stress, proper hydration, **rest breaks**, and the use of **personal protective equipment (PPE)** to **mitigate heat exposure risks**.

Workplace Modifications:

Employers are encouraged to modify workplaces to reduce heat exposure. This may include providing shaded rest areas, improving ventilation and airflow, installing cooling systems, and using reflective materials to reduce heat absorption.



Heat Stress Management Measures *(Continued)*



Heat Stress On-site Program Training



Heat Stress Management Measures (Continued)

PREVENT HEAT ILLNESS AT WORK
Outdoor and indoor heat exposure can be dangerous.

Ease into Work

- New and returning workers need to build tolerance to heat (acclimatize) and take frequent breaks.
- Follow the 20% Rule. On the first day, work no more than 20% of the shift's duration at full intensity in the heat. Increase the duration of time at full intensity by no more than 20% a day until workers are used to working in the heat.

First Aid for Heat Illness

The following are signs of a medical emergency!

- Abnormal thinking or behavior
- Sternal speech
- Saltiness
- Loss of consciousness

- CALL 999 IMMEDIATELY
- COOL THE WORKER RIGHT AWAY WITH WATER OR ICE
- STAY WITH THE WORKER UNTIL HELP ARRIVES

Watch for any other signs of heat illness and act quickly. When in doubt, call 999.

If a worker experiences:

- Headache or nausea
- Weakness or dizziness
- Fatiguing sweating or hot, dry skin
- Elevated body temperature
- Thirst
- Decreased urine output

Take these actions:

- Give water to drink
- Remove unnecessary clothing
- Move to a cooler area
- Cool with water, ice, or a fan
- Do not leave alone
- Seek medical care if needed

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تجنب الإصابة بالإجهاد الحراري أثناء العمل
قد يشكل التعرض للحرارة في الأماكن المغلقة أو المفتوحة خطراً على صحتك

المرونة في العمل

- يحتاج العمال الجدد والمعادون إلى بناء القدرة على تحمل الحرارة (التأقلم) وأخذ فترات راحة متكررة
- تبع قاعدة 20%: في اليوم الأول لا تعمل أكثر من 20% من مدة النوبة بأكملها بالحمولة الكاملة
- الحمولة بنسبة لا تزيد عن 20% في اليوم حتى يعتاد العمال على العمل في درجات حرارة عالية

الإسعافات الأولية للأصابات المرتبطة بالإجهاد الحراري

تتمثل الأعراض التالية علامات على الإصابة بحالة طبية طارئة

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- تأكل الكلام وتلف كلام غير مفهوم
- تحدث تشنجات
- فقدان الوعي

- اتصل على الرقم 999 فوراً
- قم بتبريد جسم العصاب فوراً بالماء أو الثلج
- ابق مع العصاب إلى أن تصل المساعدة

انتبه لظهور أي أعراض أخرى للإجهاد الحراري وتصرف بسرعة. إذا كانت لديك أي شكوك اتصل على الرقم 999.

إذا تعرض العامل لـ

- الصداع أو الدوار
- ضعف بدني أو دوام
- تعب شديد أو سخونة وحرقان البشرة
- ارتفاع درجة حرارة الجسم
- التشنج
- انخفاض إنتاج البول

قم بالإجراءات التالية:

- قدم الماء للعصاب بوفرة
- أزل أي ملابس غير ضرورية
- أقل العصاب المغطاة لبرد
- حاول تبريد العصاب بالماء أو الثلج أو باستخدام مروحة
- لا تترك العصاب بمفرده
- اطلب المساعدة والرعاية الطبية عند الحاجة

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گرمی کا دباؤ گنہگار بننا

کامیاب آفٹروورک
میں اپنے جسم کو ٹھنکا کرنا

15 سے 20 منٹ میں وقفہ لیں
پہلے کئی گھنٹے کے ٹھنکے سے بعد کریں

- پہلے 15 منٹ میں پانی پی کر
- پانی اور آئس کی بوتلیں لے کر ساتھ لے جائیں
- پانی اور آئس کی بوتلیں لے کر ساتھ لے جائیں
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Publications in Different languages



Implementation of Heat Stress Management Measures

Work Schedule Adjustments:

To minimize heat stress, Qatar has implemented regulations regarding **working hours** during extreme heat conditions. **Employers** must **schedule work** in a way that **reduces exposure to peak temperatures**, such as rescheduling outdoor work to cooler parts of the day or shifting work indoors when possible.

Mandatory Rest Breaks and Hydration:

Employers are required to provide **regular rest breaks** for workers to cool down and rehydrate. Adequate hydration facilities, such as access to drinking water and electrolyte replenishment, must be available on worksites.



Monitoring and Enforcement

To ensure compliance with heat stress **regulations**, Qatar has established mechanisms for **monitoring** and enforcement that include:

Inspections:

Regulatory authorities conduct **regular inspections** of worksites to assess **compliance** with heat stress management measures. **Non-compliant employers** may face penalties and corrective actions.

Hotline and Reporting Mechanisms:

Qatar has established **hotlines** and **reporting mechanisms** for workers to raise concerns about heat stress and seek assistance. This enables prompt action to be taken in cases of **non-compliance or emergencies**.



Collaboration and Partnerships

Qatar recognizes the importance of collaboration between various stakeholders to effectively address heat stress. The government has partnered with:

- The **international** organizations
- The **industry** associations
- The **workers' representatives**
- **Other partners** (Public & Private - Local & Regional)

This collaboration aims to:

- Develop **guidelines**
- Exchange **best practices**
- Promote a culture of **safety**



Future Strategic Plans

More comprehensive approaches will minimize the impact of the Heat stress:

1. Strong **Data Collection** Tools
2. Health **Surveillance** of work environment to **screen** and **monitor** heat stress
3. Adjusting **work-rest cycles** according to the measured heat exposure limits
4. **Collaborative** effort and **Synergism** between MOPH and the Ministry of Labour
5. Improvement of the **communication channels** between the key partners
6. **Emergency Response** and **timely heat stress management**



Conclusion

Qatar has made **significant success** in improving the protection of workers from heat stress.

The State has made **significant progress** in improving working conditions and making them less dangerous than in cold countries

Qatar has demonstrated its **commitment** to ensuring the **health and well-being** of workers through:

1. The implementation of comprehensive **regulations**
2. The **awareness** campaigns
3. The **training** programs
4. The **workplace modifications**
5. The **monitoring mechanisms**

Continued efforts in this area will contribute to **safer working conditions** and the **overall improvement** of workers' **quality of life**.

We also plan to continue to invest in **Research** and **Innovation** to further enhance



Thank You

