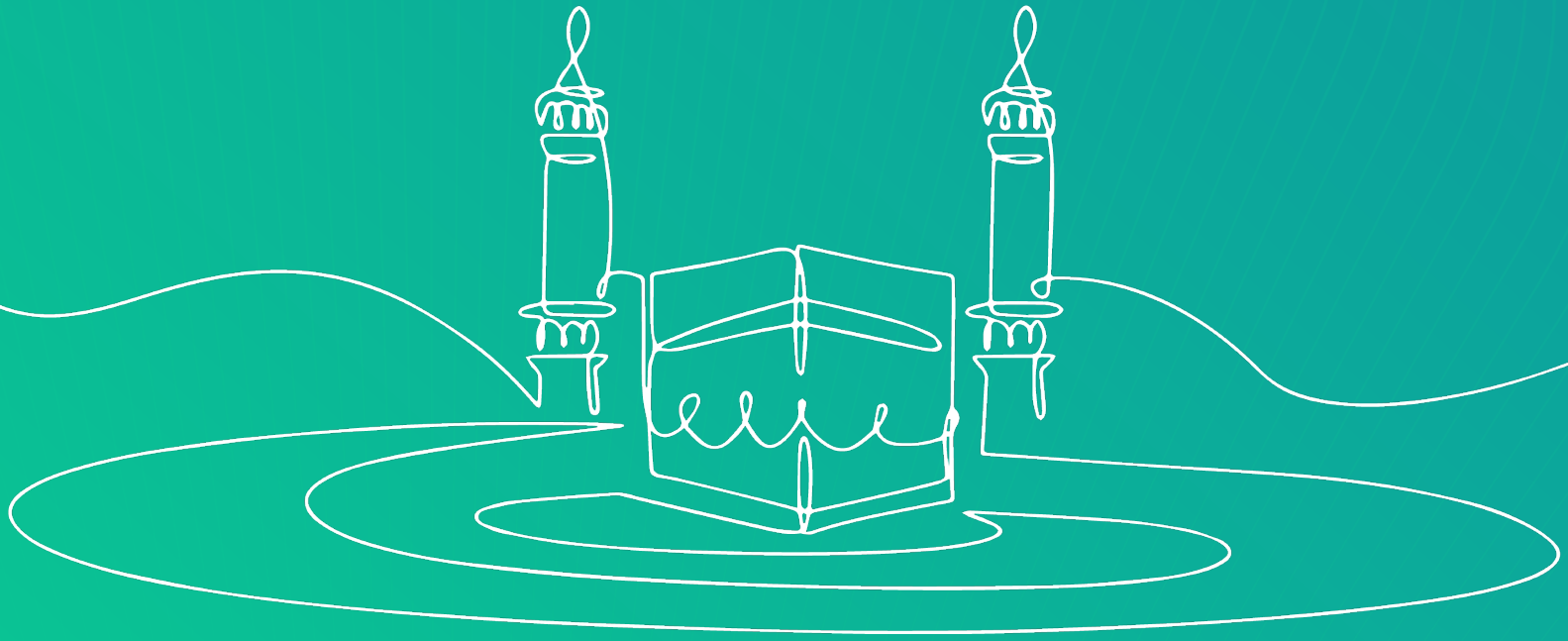


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هيئة الصحة العامة
PUBLIC HEALTH AUTHORITY

Occupational Risks Prevention Guideline for Workers in the Hajj Season

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Introduction

The Kingdom of Saudi Arabia has the honor of serving the Two Holy Mosques and their guests, welcoming millions of people annually from around the world to perform Hajj with ease and facilitation. While Hajj is a profound spiritual journey, it also represents a major operational challenge for all participating sectors to ensure the success of the season and to protect the health and safety of pilgrims.

This guideline provides a set of practical advice, preventive measures, and awareness guidance addressing the most common occupational hazards faced by workers participating in Hajj across different sectors. It strengthens prevention practices and promotes occupational health and safety for workers involved in Hajj related duties. The guideline is designed as a reference for managers, supervisors, and anyone participating in Hajj.

This guideline covers the following areas:

- 1-Biological hazards for Hajj workers.
- 2-Physical hazards for Hajj workers.
- 3-Chemical hazards for Hajj workers.
- 4-Mechanical hazards (ergonomics) for Hajj workers.
- 5-Psychological hazards for Hajj workers.

This guideline aims to:

- 1-Raise awareness of health hazards in workplaces and methods of prevention.

2-Contribute to strengthening the culture of occupational health and safety within sectors participating in Hajj.

3-Provide preventive guidance and direction to employers, OHS officers, and workers during the Hajj season.

It is also noted that this guideline includes a general tool to measure and evaluate work environments participating in Hajj .

Definitions and Abbreviations

The following terms and phrases wherever mentioned in this guideline carry the meanings defined below:

Term	Definition
Occupational Health and Safety (OHS)	A set of systems, procedures, and measures intended to provide occupational protection for workers and reduce the risk of occupational injuries, diseases, or incidents affecting workers and the establishment, with the goal of preventing such events or minimizing their occurrence.
Work Injury	An injury that occurs to a worker at the workplace or due to work.
Occupational Diseases	Diseases that arise due to exposure to risk factors present in the work environment.
Biological Hazards	Hazards resulting from exposure to microorganisms such as viruses, bacteria, and others.
Physical Hazards	Non-living factors in the work environment that can cause physical injury or affect workers' occupational health.
Chemical Hazards	Hazards resulting from exposure to chemicals such as gases, acids, and medical waste.
Psychological Hazards	Factors related to the work environment or work organization that negatively affect workers' mental or emotional health. These include chronic stress, excessive workload, unclear tasks, lack of recognition, conflicts among colleagues, discrimination, or weak administrative support.
Mechanical Hazards (Ergonomics)	A set of injuries or disorders affecting the musculoskeletal system due to repeated physical strain, unnatural movements, or uncomfortable working postures.

Biological Hazards for Hajj workers

The Hajj season presents a challenge for Hajj workers, particularly those who interact directly with pilgrims such as healthcare staff, mass gatherings teams, cleaning crews, campaign supervisors, and others. Due to close contact with pilgrims and repeated exposure to crowded and potentially contaminated environments, workers may be exposed to a range of biological hazards.

1- What are biological hazards in the Hajj work environment ?

Biological hazards during Hajj are living agents that may cause infection or illness among workers,

including:

- Viruses (e.g., coronavirus, influenza, hepatitis).
- Bacteria (e.g., tuberculosis, typhoid, meningitis).
- Fungi (fungal fever).
- Parasites (through contaminated food or water).

2- Routes of exposure to biological hazards:

- Direct contact with infected pilgrims.
- Inhalation of droplets or contaminated air.
- Exposure to contaminated bodily fluids (e.g., blood, saliva).
- Exposure to medical waste.
- Insect bites (mosquitoes transmitting dengue fever).
- Consumption of contaminated food or beverages during Hajj.

3- Most common biological diseases affecting workers during Hajj:

Disease	Mode of Transmission
Seasonal influenza	Respiratory droplets
Coronavirus (COVID-19 / MERS)	Air and droplets
Tuberculosis	Respiratory droplets
Meningitis	Respiratory droplets / body fluids
Hepatitis (B & C)	Body fluids
Lice infestation	Direct contact
Food poisoning	Consumption of contaminated food

4- Preventive guidance for biological diseases for workers during Hajj:

1- Pre-Hajj guidance for workers:

- ✓ Educate workers on modes of disease transmission and prevention.
- ✓ Encourage workers with chronic illnesses to take necessary precautions during hajj season.
- ✓ It is important for workers participating in Hajj to receive the following vaccinations:
 - ❖ All workers and participants in Hajj duties across sectors must have completed the primary COVID-19 vaccine series, in addition to the first booster dose when eligible.
 - ❖ If a medical exemption prevents receiving the COVID-19 vaccine, the approved prophylactic medication endorsed by the Ministry of Health must be taken.
 - ❖ All workers and participants in Hajj duties across sectors must have received the meningococcal vaccine within the past five years and provide proof.
 - ❖ Additional preventive vaccinations listed in the National Adult Immunization Schedule are recommended (seasonal influenza, varicella, and MMR) alignment with the Ministry of Health requirements for Hajj workers, which emphasize the mandatory completion of preventive vaccinations for all Hajj duty participants in coordination with healthcare providers across sectors.

2- During-Hajj guidance for workers:

- ✓ Use personal protective equipment (PPE).
- ✓ Wash hands with soap and water, especially after coughing/sneezing, after using toilets, and before preparing or eating food.
- ✓ Use tissues when sneezing and dispose of them in waste bins.
- ✓ Avoid direct close contact with individuals showing respiratory symptoms.
- ✓ Report suspected cases.
- ✓ Seek medical care if infection is suspected and avoid mixing with co-workers.

Physical Hazards for Hajj workers

The Hajj season constitutes a work environment with significant physical hazards, particularly for field workers in healthcare and operational sectors. Alongside biological hazards, physical hazards pose a direct threat to worker health and safety due to climatic and geographic conditions and the intensity of fieldwork.

1- What are physical hazards in the Hajj work environment?

These are non-living factors in the work environment that can cause bodily injury or affect occupational health, including:

- Heat
- Noise
- Vibration
- Lighting (excessive or insufficient)
- Slips, trips, and falls

2-Causes/examples of physical hazards during Hajj:

1- Sunstroke:

- Cause: Prolonged exposure to sunlight and high temperatures.
- Symptoms: Fatigue, dehydration, loss of consciousness, and body dysfunctions.

2- Heat exhaustion:

- Cause: Depletion of body fluids and salts due to heavy sweating and inadequate fluid intake.
- Symptoms: Fatigue, dehydration, loss of consciousness, and body dysfunctions.

3-Dehydration:

- Cause: Occurs when the body's water intake is less than the amount lost.

- Symptoms: Severe thirst, fatigue or dizziness, dry mouth and lips.

4- Noise exposure:

- Sources: Work sites near crowds, equipment, air conditioning.
- Symptoms: Temporary or permanent hearing loss, stress, sleep disturbances.

5- Vibration:

- Sources: Working on bridges, manual tasks.
- Symptoms: Circulatory or nerve disorders in hands and arms.

6- Inadequate lighting :

- Sources: Vehicle headlights (e.g., checkpoint work); work in low-light areas.
- Symptoms: Visual fatigue, headache.

7- Slip, trip, or fall hazards :

- Causes: Working at height; overcrowding and crowd surges; wet floors.
- Consequences: Fractures, sprains, and other injuries.

3- Preventive guidance to reduce physical hazards for workers during Hajj:

1.Prevention of sunstroke, heat exhaustion, and dehydration

- ✓ Organize work-rest cycles.
- ✓ Avoid high heat and direct sunlight as much as possible.
- ✓ Drink fluids regularly; do not wait until you feel thirsty.
- ✓ Avoid beverages with added sugars and caffeine as they increase fluid loss.
- ✓ Wear light-colored, lightweight clothing; cotton is recommended; avoid heavy and dark clothing.
- ✓ Use light-colored umbrellas.

- ✓ Provide shaded areas and fans

2. Noise prevention

- ✓ Use PPE (earplugs).
- ✓ Stay away from high-noise sources when possible.
- ✓ Rotate tasks to reduce exposure duration.

3. Vibration prevention

- ✓ Use vibration-dampening equipment.
- ✓ Reduce the time spent using hand-held tools.
- ✓ Take short breaks during work.

4. Lighting-related prevention

- ✓ Ensure adequate lighting at work sites.
- ✓ Use portable lighting during movement.
- ✓ Inspect lighting regularly and ensure there is no glare.

5. Slip/trip/fall prevention

- ✓ Wear suitable, comfortable, slip-resistant footwear that supports the ankles.
- ✓ Keep floors clean; do not walk on slippery floors wearing socks.
- ✓ Ask for help when performing tasks you cannot safely do alone.

6. General safety guidance

- ✓ Identify and assess hazards at each work site.
- ✓ Provide PPE for each worker category.
- ✓ Conduct periodic awareness training.
- ✓ Monitor environmental conditions (temperature, lighting, noise, vibration) regularly.
- ✓ Record and address injuries and incidents immediately and identify root causes.

Chemical Hazards for Hajj workers

In multi-sector work environments during Hajj, workers may be exposed to various chemicals that can cause direct or cumulative harm if not managed professionally and safely.

1-What are chemical hazards in the Hajj work environment?

Chemical hazards include any solid, liquid, or gaseous substance that may cause health harm when entering the human body through inhalation, skin contact, or injection.

2- Sources of chemicals during Hajj :

Source	Type of Chemical (examples)	Route of Exposure
Cleaning and disinfection materials	Chlorine, alcohol-based disinfectants, fragrances	Inhalation, skin contact
Vehicle exhaust	Gasoline, diesel	Inhalation
Insecticides	Pyrethroids	Inhalation, skin contact
Medical laboratories	Formalin	Inhalation

3- Preventive guidance to reduce chemical hazards for workers during Hajj:

- ✓ Ensure good ventilation at workplaces and use efficient exhaust/ventilation systems.
- ✓ Provide and train workers on the use of PPE (masks, gloves, protective eyewear).
- ✓ Train workers on safe handling of chemicals.
- ✓ Raise awareness of health risks associated with chemical exposure.
- ✓ Conduct periodic medical screening for workers exposed to chemicals.
- ✓ Regularly assess work environments.

Mechanical Hazards (Ergonomics) for Hajj workers

Work during the Hajj season involves substantial physical demands due to task intensity and long working hours, making musculoskeletal disorders among the most common occupational injuries affecting workers.

1- What are musculoskeletal hazards in the Hajj work environment?

A range of musculoskeletal injuries or disorders resulting from repeated physical strain, incorrect movements, or uncomfortable postures during work.

2- Examples of musculoskeletal injuries for workers during Hajj:

Musculoskeletal injury	Common causes	Associated symptoms
Muscle strain	High physical exertion; working without warm-up; low fitness	Sharp pain in the muscle; swelling
Shoulder tendon injury	Raising hands for long periods; carrying loads above head level	Shoulder weakness and pain
Knee and joint pain	Long walking; prolonged standing	Muscle fatigue; swelling
Lower back pain	Prolonged standing; incorrect sitting/lifting postures	Pain in lower back muscles

3- Preventive guidance for musculoskeletal hazards for workers during Hajj:

- ✓ Physical readiness before Hajj (fitness enhancement):
- ❖ Aim for at least 150 minutes per week of moderate-intensity physical activity (aerobic exercise) such as swimming, tennis, or cycling.
- ❖ If you are physically inactive, start with brisk walking for 30 minutes daily.
- ❖ Gradually increase effort by dividing walking into three sessions per day, 10 minutes each.
- ❖ Begin exercise with a warm-up period of 5–10 minutes and include a 5-minute cool-down before finishing.
- ❖ Replace daily habits with more movement (e.g., stairs instead of elevators).
- ❖ For motivation and continuity, track daily performance (e.g., step counting using a dedicated app).

- ✓ Organize work and rest schedules to reduce effort.
- ✓ Perform stretching and warm-up exercises before work.
- ✓ Train workers on proper lifting techniques (body mechanics).
- ✓ Wear comfortable footwear suitable for long walking/standing.
- ✓ Use comfortable flooring to reduce joint pressure.
- ✓ Provide rest areas close to work sites.

Psychological Hazards for Hajj workers

1- What are psychological hazards in the Hajj work environment?

Psychological hazards are factors related to the nature of work, working conditions, or workplace relationships that may lead to psychological stress, burnout, and related outcomes.

2- Examples of psychological hazards during Hajj :

Psychological hazard	Contributing factors (examples)
Stress	Work pressure, long working hours, dealing with crowds
Burnout	Unclear roles, work pressure, long working hours, witnessing fatalities, dealing with crowds
Acute anxiety and high tension	Working in critical situations or under threats (e.g., disasters or massive crowds)

3- Effects of psychological hazards during Hajj:

- Reduced concentration and performance
- Professional errors that affect the safety of workers and pilgrims
- Reduced decision-making
- Increased workplace incidents

4- Preventive guidance for psychological hazards for workers during Hajj:

- ✓ Set reasonable working hours.
- ✓ Organize regular rest breaks.
- ✓ Establish a supportive and understanding work environment.
- ✓ Provide awareness workshops on stress management and “psychological resilience” skills and coping with tension.
- ✓ Train staff on crowd management methods.
- ✓ Clarify roles and organize workflow mechanisms.

Occupational Exposure Risk Assessment Tool for Work Environments During Hajj

This tool was designed to assess occupational risks at workplaces and the surrounding environmental conditions affecting workers during Hajj. Its primary purpose is to evaluate potential risks and provide recommendations to improve the work environment and ensure workers' health and safety.

Please select all that apply.

Hazard Category	Hazard	Risk Level	Number of Workers Exposed	Notes
Physical hazards	Noise High temperature Humidity Vibration Low lighting Slips/trips/falls	High / Medium / Low	<input type="radio"/> 1-5 <input type="radio"/> 10-50 <input type="radio"/> 50-100 <input type="radio"/> +100	
Airborne-transmitted hazards	Dust Vehicle exhaust Cleaning materials	High / Medium / Low	<input type="radio"/> 1-5 <input type="radio"/> 10-50 <input type="radio"/> 50-100 <input type="radio"/> +100	
Ergonomic hazards	Prolonged standing Lifting heavy objects	High / Medium / Low	<input type="radio"/> 1-5 <input type="radio"/> 10-50 <input type="radio"/> 50-100 <input type="radio"/> +100	
Workplace safety hazards	Lack of protective clothing Site facilities not adequately prepared	High / Medium / Low	<input type="radio"/> 1-5 <input type="radio"/> 10-50 <input type="radio"/> 50-100 <input type="radio"/> +100	
Other hazards	Confined workspaces; Crowded work areas	High / Medium / Low	<input type="radio"/> 1-5 <input type="radio"/> 10-50 <input type="radio"/> 50-100 <input type="radio"/> +100	

*1 Risk Rating

Risk Rating	Action Required
High (for example, Fatality, major injury, likelihood of long MSD affecting high numbers of staff)	Immediate action required
Medium (major or minor injury to one/few staff)	Requires attention as soon as possible
Low (minor harm to few staff)	Not a priority

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