

# Hajj and Health



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# Personal risk factors.

## ❖ Age

ageing results from the impact of the accumulation of a wide variety of molecular and cellular damage over time. This leads to a gradual decrease in physical and mental capacity, a growing risk of disease. Therefore Being old increases the risk of many diseases

## ❖ Immunocompromised patients

They are less capable to battle infections due to an impaired or weakened immune system. can be caused by a number of conditions:

1. Genetics: genetic defects.
2. acquired infections: HIV
3. Medications: chemotherapy, radiation
4. chronic diseases: diabetes, renal diseases.

# Personal risk factors

“Lack of immunization”

## Lack of immunization

millions of Muslims are travelling to Mecca to perform Al Hajj. They are coming from **different regions** with **different age groups**. As a result, different health problems may occur if they don't take **preventative** methods.

The **Ministry of Health** of Saudi Arabia has issued the following requirements and recommendations for entry visas for the Hajj in 2017.

# Personal risk factors

“Lack of immunization”

## I. Yellow fever

**all travellers** arriving from **countries or areas at risk** of yellow fever transmission must present a valid yellow fever vaccination certificate.

## II. Meningococcal meningitis

Visitors **from all the countries** arriving for the purpose of Umra or pilgrimage (Hajj) or for seasonal work are required to **submit a certificate** of vaccination with the quadrivalent (ACYW 135) vaccine against meningitis

# Personal risk factors

“Lack of immunization”

## III. Poliomyelitis

**proof** of receipt of a dose of oral polio vaccine or inactivated poliovirus vaccine, **is required** to apply for an entry visa for Saudi Arabia for travellers arriving from certain countries.

## IV. Seasonal influenza

The Ministry of Health of Saudi Arabia **recommends** that international pilgrims be vaccinated against seasonal influenza with **most recently** available vaccines.

# Personal risk factors

“Lack of immunization”

“Pilgrims should take the required vaccines to prevent many serious infections. However some do not and that will put them at a higher risk.”

# Personal risk factors

“Health problems”

## Health problems

People who suffer from **chronic illnesses** such as: **cardiac, kidney, respiratory diseases** and **diabetes** are at risk of further complications during hajj season.

### WHY??

# Personal risk factors

“Health problems”

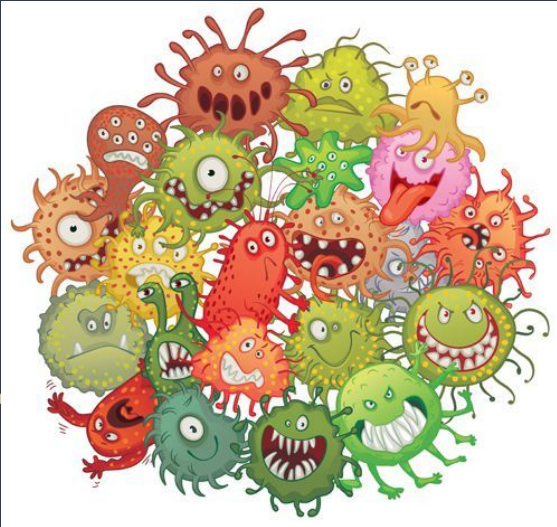
- Many pilgrims are caught up by the **spiritual experience** of hajj and may forget to take their usual medications. As insulin, antihypertensive drugs.
- They **are immunocompromised** patients, and there are a lot of risk factors in Hajj that can **affect and worsen** their health status.
- Hajj requires **too much effort**, which can be very **exhausted** for patients with chronic diseases.



# Environmental Health Risk Factors in Hajj

- ❖ Weather:
  - Hot weather quickly brings out the worst in odors. Large garbage trucks are available and waiting to remove the garbage from the bins, but they cannot get into the spaces that are congested with people since the trash cannot be removed immediately, **it causes odors and attracts flies and an environment is created whereby disease can quickly transfer from one person to another.**
  - sunstroke

# Environmental Health Risk Factors in Hajj



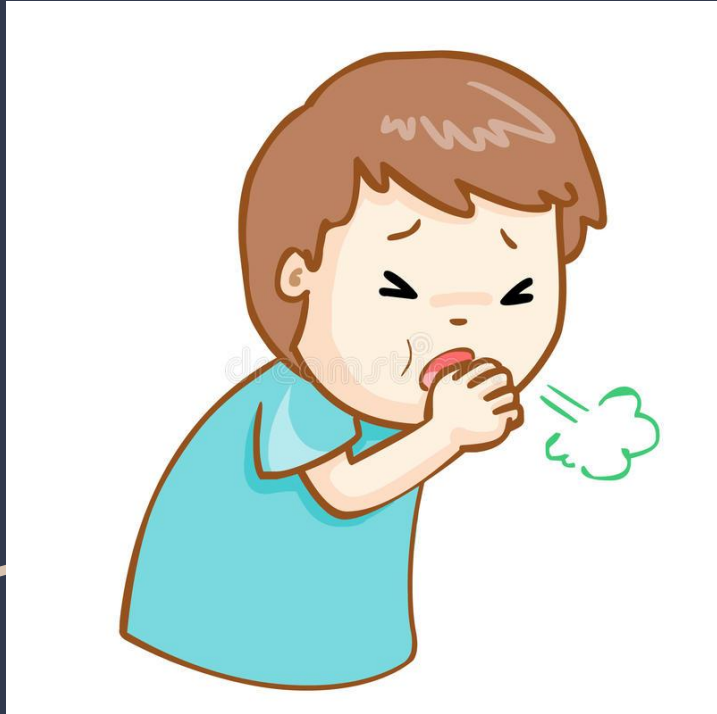
- ❖ Various microbiological agents:
  - Flies are strongly suspected of transmitting at least 65 diseases to humans, including **typhoid fever**, dysentery, **cholera**, **poliomyelitis**, yaws, anthrax, tularemia, leprosy and **tuberculosis**.”

# Environmental Health Risk Factors in Hajj



- ❖ Crowdedness:
  - The lack of space (Mecca is a small town), with so many people in the same place yearly, cause generation of garbage.
  
- ❖ walking for a long distance (Mina and Arafat is 14.4 Km)
  - Muscle Pain
  - Dehydration

# Common diseases during Hajj



## 1- Respiratory Diseases:

- Respiratory tract infection during Hajj is a common illness, such as **cold, seasonal influenza and bronchitis**.
- They are transmitted through the droplets of coughing, sneezing or speaking.
- **Influenza virus** is the leading cause of upper respiratory tract Infection.
- **Pneumonia** which is a serious lung infection can cause lower respiratory tract infection..
- It caused by close contacts among the pilgrims, as well as the crowding,
- The possibility of transmission of *M. tuberculosis* is expected to be high.

# Common diseases during Hajj



## 2- Gastrointestinal disorders:

- Acute food poisoning is common during the Hajj and is caused by toxins produced by *Staphylococcus aureus* and *Bacillus cereus*.
- Gastroenteritis due to *Salmonella spp* and viruses such as rotavirus and norovirus are common.
- **Risk Factors include:**
  - Contamination of food through unhygienic preparation.
  - Prolonged storage of food.
  - Drinking from contaminated water sources.
  - Shortage of water for hand washing.
- Also, **diarrhea, constipation, nausea, vomiting, and headache** are common during Hajj.

# Common diseases during Hajj



## 3- Dermatological Diseases:

The incidence of dermatitis (skin diseases) have increased in KSA especially in the period of hajj for many reasons, **including:**

1. **Increased secretion of sweat as a result of the impact of the hot sun.**
2. **High humidity.**
3. **Large gatherings.**

# Common diseases during Hajj



## Examples of Dermatological Diseases:

### 1- Eczema:

It is a kind of inflammation in the skin which is accompanied by **severe itching**.

### Symptoms:

- Rashes commonly appear in creases of **elbows or knees, or the nape of neck**.
- Rashes cover much of the body.
- Rashes can be especially prominent on neck, face, and around the eyes.
- Rashes can cause very dry skin.

# Common diseases during Hajj



## Examples of Dermatological Diseases:

### 2- Fungal Diseases:

such **parasitic infections** are widely spread in areas with hot weather conditions.

### Scabies:

- This is one of the commonest infectious dermatitis
- It happens due to some **parasitic infection**.
- The symptoms of this disease include severe itching at night.
- The superficial burrows of scabies usually occur in the area of the hands, feet, wrists, elbows, back, buttocks, and external genitals.



# Communicable diseases risk during Hajj



1- meningococcal meningitis:

Bacterial meningitis infection caused by *Neisseria meningitidis*.

Risk factor :recent upper respiratory tract infection

Transmission : inhalation of respiratory droplets.

Incubation period: 2 to 10 days

Symptoms : Sudden high fever, headache, Neck stiffness, Nausea or vomiting, Drowsiness, Joint pain, Photophobia, Petechia Skin rash

Diagnosis: isolation of organism from sterile body fluid such as blood and CSF

Treatment: IV penicillin or ceftriaxone.

15% of those who survive are left with disabilities that include deafness, brain damage

An outbreak of meningococcal disease occurred during the 2000 Hajj.

# Communicable diseases risk during Hajj



2- respiratory tract infection:

A. URTI: Among the common diseases during Hajj are: cold, seasonal influenza and bronchitis.

Influenza virus is the leading cause of upper respiratory tract infection during Hajj.

symptoms include cough, sputum, sore throat, hoarseness, fever and malaise.

Treatment: Take enough sleep, drink much liquids containing Vitamin and Take antipyretics and painkillers

B. LRTI:

In 2003, pneumonia was the leading cause of hospital admissions during Hajj and the second leading cause of ICU admissions.

age > 50 years

caused by *C. albicans* and *P. aeruginosa*

# Communicable diseases risk during Hajj



## 3- yellow fever:

viral infection transmitted by a bite from infected mosquitoes

Initial symptoms: Flu-like symptoms, fever and chills.

fever and yellowing of the skin occur later because of liver damage, hepatitis.

No specific treatment

## 4- cholera:

Infectious disease that cause severe watery diarrhea and dehydration (vibrio cholerae)

Symptoms: diarrhea, vomiting and dehydration.

Treatment: hydration and antibiotic.

There was increase in risk of outbreak in hajj 2017 but no disease outbreak was reported.



Ghaida Aljamili

# Communicable diseases risk during Hajj



## Gastrointestinal disease:

Functional disorders are those in which the gastrointestinal (GI) tract looks normal but doesn't work properly. They are the most common problems affecting the GI tract (including the colon and rectum). Constipation and irritable bowel syndrome (IBS) are two common examples.

**Many factors may upset the GI tract and its motility (or ability to keep moving), including:**

- Eating a diet low in fiber
- Not enough exercise
- Traveling or other changes in routine
- Eating large amounts of dairy products
- Stress

# Communicable diseases risk during Hajj

## Blood borne disease

Exposure to blood or any body fluid

The pathogens of primary concern are the human immunodeficiency virus (HIV), hepatitis B virus (HBV), and hepatitis C virus (HCV).

## Poliomyelitis

Poliovirus is spread by the fecal-oral route and by aerosol droplets. The poliovirus is shed in oral secretions for several weeks and in the feces for several months. The poliovirus destroys the anterior horn cells in the spinal cord.



### What is Poliomyelitis?

Poliomyelitis which in normal terms goes by the name of Polio is an extremely contagious viral infection which directly attacks the nervous system.

For More Information:  
Visit: [www.ePainAssist.com](http://www.ePainAssist.com)



# Chronic Diseases During Hajj

Heba Al-Qattan  
435200086

## Objectives:

- 1- What are the **chronic** diseases of hajj?
- 2- What is the **epidemiology** of these chronic diseases?
- 3- What are the general **risks** and **safety measures** for chronic disease sufferers during Hajj?

Do **you** have any ideas of what these chronic diseases could be?





The most common chronic diseases of Hajj = The most common chronic diseases in any other situation



## Chronic Diseases of Hajj:

- Hypertension
- Diabetes
- Asthma
- Epilepsy
- Renal Disease

Hajj provides a good representation of the Muslim population, so it is an accurate reflection of the diseases we suffer from in the Muslim community.



# Hypertension

Epidemiology:

972 million people globally

Dangers in Hajj:

Lost medication, noncompliance,  
Aneurysm, Stroke, Heart Attack,  
Angina during tawaf or throwing  
stones, increased physical  
exertion



# Hypertension

## Safety Measures:

- **Consult your doctor.**
- **Store medications safely.**
- **Comply to medications, especially during times of forced activity.**
- **Angina → SL nitroglycerin**
- **Chest pain → go to nearest hospital**
- **Avoid excessive physical exertion, use a wheelchair if needed.**
- **Avoid irritability.**



# Diabetes

Epidemiology:

422 million people globally

Dangers in Hajj:

Hypoglycemia (especially if diabetic has HTN), DKA, hyperosmolar hyperglycemic nonketotic coma, lost medications, noncompliance, inadequate food intake



# Diabetes

## Safety Measures:

- **Wear bracelet, carry medical report.**
- **Inform people nearby of your illness.**
- **Store and transport insulin in a cool place.**
- **Hypoglycemia → Glucagon injection**
- **Avoid walking barefoot, comfortable footwear.**
- **Electric shavers, disinfectants.**
- **Carry blood glucose checking kit.**
- **Adequate meals.**



# Asthma

Epidemiology:

235 million people globally

Dangers in Hajj:

Crowding, stress, pneumonia, exercise, acute asthmatic attack, fatigue, status asthmaticus, lost inhaler, hypoxemia, hypercapnia, acidosis, respiratory failure, lung collapse



# Asthma

## Safety Measures:

- **Consult GP on stability of condition.**
- **Take both prophylactic and rescue medications with you in a safe place.**
- **Adherence to medication.**
- **Frequent rest.**
- **Avoid overcrowding.**
- **Wear face-mask, if needed.**
- **Go to nearest health center if faced with a severe attack.**



# Epilepsy

## Epidemiology:

50 million people globally (least common but most serious)

## Dangers in Hajj:

Sensory triggers, overcrowding, status epilepticus, seizure, hypoxia, acidosis, permanent brain damage, trauma, death



# Epilepsy

## Safety Measures:

- **Consult GP on stability of condition.**
- **If epilepsy is uncontrolled, it is better not to perform Hajj.**
- **If epilepsy is well-controlled, medication compliance is critical.**
- **Bring family members along.**
- **If unable, inform others of your condition and teach them what to do in case of seizure.**
- **Avoid exposure to stress and sensory triggers.**





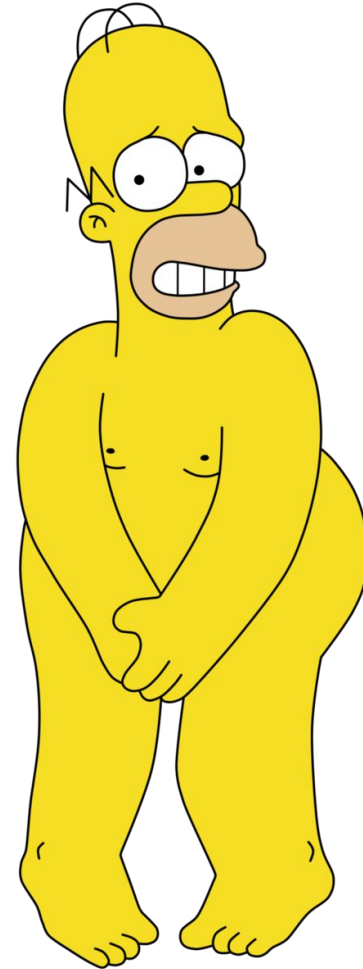
# Renal Disease

Epidemiology:

8 million people globally

Dangers in Hajj:

Uremia, HTN, HF, Pericarditis, Uremic pulmonary edema, nausea, vomiting, uremic encephalopathy, hypocalcemia, restless leg syndrome, AKI in bilateral renal stones



# Renal Disease

## Safety Measures:

- **Consult GP on stability of condition.**
- **Take medications with you in a safe place.**
- **Adherence to medication.**
- **Proper water and salt intake.**
- **Consult campaign's doctor in case of gastroenteritis or UTI.**
- **Avoid excessive sun exposure to avoid water and salt loss**
- **Avoid eating meat**

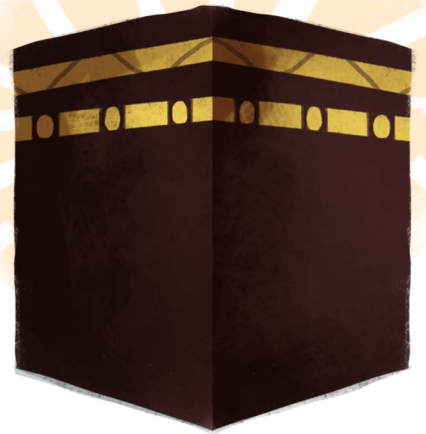


# General Safety Measures for All Chronic Diseases

- Consult your physician beforehand to prescribe the appropriate medications during the pilgrimage.
- Comply and adhere to those medications.
- Wear a wrist bracelet showing your name, age and nature of your illness.
- Carry a detailed medical report about your condition and the prescribed treatment.
- Bring a sufficient quantity of prescribed drugs and save them in a safe, suitable, accessible place.
- If you feel you are not able to complete Hajj, you can do your Saiee and Tawaf in a wheelchair .
- Stop any activity when you feel early signs of fatigue and stress .
- Visit the nearest health center in case of not feeling well even after taking rest and treatment.
- Avoid all bad eating habits that would worsen the case, such as excessive tea and coffee intake, eating fatty foods, and smoking.



In conclusion, proper control, precautions and safety measures are essential to ensure a safe pilgrimage for chronic disease sufferers.



# Hajj Vaccinations:

The Ministry of Health issued the requirements and health tips for pilgrims and Umrah pilgrims for the **1438H** season and for all arrivals to Hajj and Umrah areas for any other purpose.

- **Compulsory vaccinations.**
- **Additional recommended vaccinations (optional).**



**Hajj Vaccinations**  
What You Really Need to Know About

Going for Hajj ?

# Hajj Vaccinations:

- **Compulsory vaccinations:**
  - Vaccination against yellow fever,
  - Meningococcal vaccination,
  - Polio vaccination.

# Hajj Vaccinations:

Vaccination against **yellow fever**:

- ◆ **Against: Flavivirus**
- ◆ **Targeted group:**
  - Pilgrims hailing from places affected by the disease, such as **African semi-desert regions, and some South-American countries.**
- ◆ **Timing:**
  - At **least 10 days before** Hajj,

**-The certificate of vaccination lasts for life-**

**-Up to ten-year immunity -**

# Hajj Vaccinations:

## Meningococcal vaccination:

- ◆ **Against: *Neisseria meningitis* strains: A, C, W135, Y**
- ◆ **Targeted group:**
  - **All** pilgrims and **children over two**, as well as **pregnant** women,
    - Pilgrims from **The African Belt**, they are given preventive "prophylaxis" treatment at the Kingdom's entry ports in order to reduce the rate of carrying the microps among the arrivals.
- ◆ **Timing:**
  - At **least 10 days before** Hajj,
    - Meningococcal polysaccharide vaccine (MPSV-4) duration of immunity: **three years.**
    - Meningococcal conjugate vaccine (MCV-4) duration of immunity: **five years.**



# Hajj Vaccinations:

## Polio vaccination:

- ◆ Against: **Poliovirus**.
- ◆ Targeted group:
  - Pilgrims of **all age groups** hailing from regions stricken by polio
- ◆ Timing:
  - At **least 10 days before** Hajj,

**-Another dose** is given to the pilgrim when arriving to the Kingdom.

# Hajj Vaccinations:

- **Additional recommended vaccinations:**
  - Vaccination against seasonal influenza.

# Hajj Vaccinations:

Vaccination against **seasonal influenza**:

- ◆ **Against: Influenza viruses**
- ◆ **Targeted group:**
  - All pilgrims, especially the elderly, those suffering from chronic diseases, patients with immunodeficiency (natural and acquired alike), as well as patients with metabolic diseases, obese persons, pregnant women (beginning with the fourth month) and children less than 5 year old.
- ◆ **Timing:**
  - **Six weeks before** Hajj.

# Hajj Vaccinations:

## Respiratory Diseases Vaccines:

- ◆ **Against:** depend on the type of vaccine, Eg. Pneumococcal vaccine against Streptococcus pneumoniae.
- ◆ **Targeted group:**
  - **Obligatory only for immunocompromised**

# Saudi Arabia Ministry of Health Updated Advice (2017)

**For Hajj 1438 (2017) the Saudi Arabia Ministry of Health recommends that the elderly (above 65 years of age), those with chronic diseases (e.g. heart disease, kidney disease, respiratory disease, diabetes), immune deficiency (congenital and acquired), malignancy, terminal illness, pregnant women and children (under 12 years) postpone the performance of the Hajj and Umrah for their own safety.**

# General tips for Preventions : Before Hajj

- **Necessary vaccinations.**
- **Seeing a doctor before travelling**
- **Sufficient medications**
- **Enough cloths**
- **A report of the medical diagnosis**
- **Personal bag**
- **Blood sugar measurement device.**
- **Walk for a while every hour or two hours**
- **Medical tests for tuberculosis**

# General tips for Preventions : During hajj

- **Hygiene and General Cleanliness Tips**
- **Protection Against Food Poisoning  
During Hajj**
- **Protection Against Heat Exhaustion and  
Sun Strokes**

# General tips for Preventions : After Hajj

Strain, muscle pains and aches, headache, cold, laziness, irregular sleep, and complexion-darkening. And such symptoms result from exposure to sunlight beams, excessive movement without adequate fitness, and getting infected with cold and influenza.

## 1-Flu :

Make a point of not transmitting the infection to others through following these preventive procedures:

- Using handkerchiefs to cover the nose and mouth when sneezing or coughing, then throw them away in the wastepaper basket
- Making a point of washing hands repeatedly in a correct way.
- Taking a great deal of rest and drinking fluids, as this helps you recover, God willing.
- Taking analgesics when needed.
- Seeing a doctor when necessary.





# General tips for Preventions : After Hajj

## 2-Chronic diseases :

Make a point of seeing your doctor.

## 3-Physical fitness

so make the Hajj journey a motive to advance the general health and physical fitness.



وزارة الصحة  
Ministry of Health  
الوزارة العامة للصحة والإعلام والتوعية الصحية

صحتك في  
الحج والعمرة

## Health Instructions for Hajj and Umrah

### To protect your health and health of others during Umrah and Hajj ..



Cover your mouth and nose with a tissue when you cough or sneeze. Put your used tissue in the waste basket. If you don't have a tissue, cough or sneeze onto your upper sleeve or elbow, not your hands.



Wash your hands thoroughly and regularly with soap and water or other waterless disinfectants, especially after coughing, sneezing or using the bathroom, and observe your personal hygiene.



Use disposable shaving razors and avoid sharing personal hygiene tools as this may lead to infection with serious diseases such as hepatitis B and C.



To avoid sun stroke, use an umbrella and stay away from direct sun exposure as much as possible, drink plenty of fluids and have a rest.



Use masks in crowded areas, replace it as per the instructions of the manufacturing company and it should be removed from ear loops not from the front of the mask, then wash hands with soap and water after removal.



Kindly, put the waste in a garbage bag and throw it in the trash bin.



Avoid exposure to blood and body fluids or secretions (stool, urine, mucus) of other persons. Refrain from spitting on the ground and use the tissue for that.

### How to protect yourself from food poisoning during Umrah and Hajj ?..



Avoid eating exposed foods prone to contamination.



Wash your hands thoroughly with soap and water or waterless disinfectant, especially before preparing and serving food and prior to eating.



Check expiration date on canned or wrapped food.



Ensure cooking food properly and consume it directly after cooking or keep it in the refrigerator.



Ensure washing fruits and vegetables thoroughly before eating.



Remember that storing cooked food for more than 2 hours at room temperature or in buses causes growth of germs and consequently may cause food poisoning.

### If you have any chronic disease and would like to perform Hajj or Umrah.



Keep a sufficient quantity of medications with you and store it in a safe way.



Consult your physician before going for Hajj to assess your health and give you the required vaccinations.



Follow the dietary regime and physician instructions.



Inform any of your friends accompanying you in Hajj or Umrah about your disease and medications you are taking to help you when necessary.

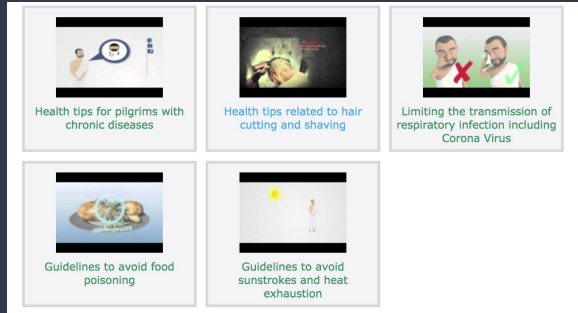


Take the medicine regularly and according to the physician instructions.



Your wrist strap carries important medical information about you. It helps the Hajj/ Umrah authorities to provide you with medical assistance when needed. Make sure to wear it throughout the Hajj period.

# Ministry of health Videos:



Health tips for pilgrims with chronic diseases:

<https://www.youtube.com/watch?v=aXwK3kF-YR4>

Health tips related to hair cutting and shaving:

<https://www.youtube.com/watch?v=OMS7x7n8Wpw>

Limiting the transmission of respiratory infection including **Corona Virus**:

<https://www.youtube.com/watch?v=7yGnkUKiA70>

Guidelines to avoid food poisoning:

<https://www.youtube.com/watch?v=vz7aYLIvNew>

Guidelines to avoid sunstrokes and heat exhaustion:

<https://www.youtube.com/watch?v=Z2wJTIAWL6M>

# Corona Virus:

How to prevent

:: <https://www.youtube.com/watch?v=xfpDH6CIdk>

How does someone get infected ?

[https://www.youtube.com/watch?v=z-8hzZ\\_BOU](https://www.youtube.com/watch?v=z-8hzZ_BOU)

## CORONA VIRUS

Middle East Respiratory Syndrome- Coronavirus (MERS-CoV)

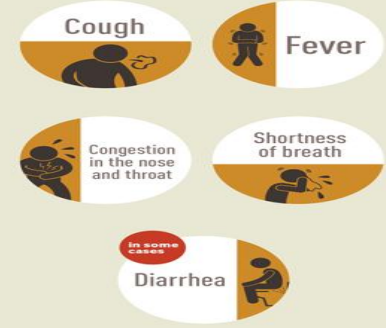
According to the recommendations of the specialized scientists who attended the International Medical Meeting in Riyadh

### HOW CORONA VIRUS DOES TRANSMIT BETWEEN PEOPLE?

MERS-CoV transmits like other Corona viruses and Flu, which transmits through:

- 1 Direct contact with infected patients.
- 2 Droplets during the patients coughing or sneezing.
- 3 Contact with patient's tools then touching the nose, mouth or eyes directly.
- 4 Possibly Transmitted by infected Camels.

### WHAT ARE THE SIGNS AND SYMPTOMS OF CORONA VIRUS INFECTION?



### WHAT ARE THE POSSIBLE PROTECTION MEASURES FOR CORONA VIRUS?

- 1 Wash your hands well and continually with water and soap, or other hand disinfectants, especially after coughing, sneezing, using toilets, before handling/preparing food, and after contact with patients or their personal tools.
- 2 Avoid contact with patients and their personal tools, and use face-masks only if you're sick or visiting sick patients.
- 3 Use a tissue when coughing or sneezing, then get rid of it in a waste basket. After that, wash your hands carefully. If there is no tissue, it is preferred to cough or sneeze into your upper sleeve or elbow, not your hands.
- 4 Avoid touching your eyes and/or nose as much as possible.
- 5 Maintain good hygiene habits in general.
- 6 Wash vegetables and fruits thoroughly before eating them.
- 7 Maintain other healthy habits such as balanced diet, physical activity, as well as getting enough sleep; this will strengthen immunity.

Do you have any inquiry . . ?

/MOHPortal  
 /SaudiMOH  
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