Hajj and diabetes: A guide for patients

Introduction
Every year, more than two million people travel to Makkah during Hajj, making it the largest annual mass gathering on Earth. Whilst this is an extremely important and spiritual time, you must be well-prepared for what you may experience, to ensure your Hajj runs as smoothly as possible.

Almost all pilgrims will experience some form of illness due to a number of factors, which are unique to the Hajj. These include:
1. Worldwide pilgrims bringing the illnesses associated with their own countries
2. Overcrowding
3. Inadequate nutrition
4. Poor accessibility to drinking water
5. Heat exhaustion
6. Considerable physical exertions and travel, often by foot, required to fulfil the Hajj rites.

People with diabetes are at a greater risk of illness, as a result of the condition itself, but also the altered daily routine and increased physical exertion that may affect diabetes control. People with diabetes are more likely to get infections, become dehydrated, develop heat stroke, but may also develop problems related to their diabetes, such as low or high blood glucose levels and foot problems.

Health risks for pilgrims with diabetes include:
1. Low blood glucose levels
2. High blood glucose levels
3. Dehydration
4. Heat exhaustion and heat stroke
5. Infections, such as chest infections, diarrhoea, and more recently Middle East Respiratory Syndrome (MERS) and possibly Ebola
6. Foot infections and ulcers
7. Heart problems due to increased physical exertion

What is heat exhaustion and heat stroke?

People with diabetes have an increased sensitivity to heat and more likely to suffer from health problems in hot temperatures. Heat exhaustion occurs when someone becomes fatigued as a result of low blood pressure, caused by dehydration and prolonged heat exposure. Heatstroke occurs when the body's temperature becomes dangerously high due to excessive heat exposure. The body is no longer able to cool itself and starts to overheat.

Foot problems

People with diabetes can often lose sensation in their feet, therefore they are more likely to develop injuries, wounds and burns as a result of walking barefoot. Dry skin, wounds, blisters and burns can put you at risk of foot infections. If various precautions are taken (see below), the risk of these developing can be reduced.
Preparations for Hajj

1. The pre-travel Hajj consultation

Hajj is a very stressful endeavour and requires strenuous physical effort. Therefore, a pre-travel consultation with a health professional looking after your diabetes is essential. It may be necessary to change the dose of your diabetes treatment or your diabetes team may advise you to take mid-morning snacks when exercise is expected to be more strenuous, such as during the days of travel between Makkah, Medina and Mina/Arafat. All pilgrims with diabetes should be trained in what to do if they become unwell with other illnesses, such as infections. These are known as sick-day rules and should be discussed with your health professional before embarking on Hajj.

2. Awareness about low blood glucose levels

All pilgrims with diabetes should be aware of the symptoms and signs of hypoglycaemia and how it should be treated. Their companions should also be aware of the recognition and management of low blood glucose. Pilgrims with diabetes should always carry treatment for low blood glucose with them, such as a glucose tablets or sweets.

3. Footwear

It is important to wear protective and comfortable shoes for travel.

4. Medical supplies

Prior to travelling, pilgrims with diabetes should ensure they have sufficient supply of medication, including if necessary insulin needles, insulin pens, and blood glucose monitoring equipment.

5. Storing insulin and an diabetes emergency kit

Insulin should not be put in the luggage hold of the aircraft as it may freeze and become unusable. It should be kept in your hand luggage, ideally in a cool bag type container (for details, see [www.friouk.co.uk](http://www.friouk.co.uk)). Once in Saudi Arabia, insulin should be kept in the fridge, but not in the freezer section. Whilst moving around in hot places, insulin should be stored in cool bags and kept away from direct sunlight. This also applies to most other injectable diabetes treatments, such as Exenatide (Byetta®) and Liraglutide (Victoza®).

We would recommend that people who are treated with insulin or sulfonylurea (eg gliclzdze or glimepiride) should carry a diabetes emergency kit at all times. This should contain Glucogel®, to rub on the pilgrim’s gums if they are found unconscious.

6. Identity

Pilgrims with diabetes should wear identifying medical wristbands (see [www.medicalert.org.uk](http://www.medicalert.org.uk)). It is useful to carry an up-to-date list of medications ideally with generic names in case further supplies are needed. If you have a complex medical history, you may wish to take along a recent clinic letter with you which may help doctors in Saudi Arabia deal with your medical problems should you become unwell. Due to the recent increase in airport security, it is important for pilgrims to have a letter from their diabetes health professional confirming their medical history and their need for carrying needles and syringes in the hand luggage.

7. Adjusting insulin dose timings

The time difference between the UK and Saudi Arabia is 2-3 hours. Generally, time zone changes of less than four hours do not require major alteration in your injection schedule. A good source of information about longer travel journeys and timings of insulin can be found on [www.VoyageMD.com](http://www.VoyageMD.com).
During Hajj

Pilgrims should be aware of how to access local health care whilst on the Hajj. The Kingdom of Saudi Arabia has an advanced healthcare system with 141 primary medical clinics and 24 hospitals in the immediate vicinity of the Haram and other Hajj sites.

1. Infections

If any illness occurs, diabetes control will need careful monitoring and sick day rules should be applied. Patients should continue to take their diabetes medications regularly and should seek medical advice urgently if they feel unwell. In the case of diarrhoea or vomiting, you should ensure you keep drinking plenty of fluids to avoid dehydration and if this is not possible, seek medical advice at the earliest time.

2. Preventing foot problems

People with diabetes are more likely to get foot infections, blisters and ulcers. Hot marble can burn, and in people with numb feet due to diabetic neuropathy, these burns may go undetected. To avoid burns and ulcers, you should make sure to wear comfortable shoes with good ankle support when permissible. Make sure your shoes are the correct size, and that you do not wear brand new shoes – shoes should be “worn in” before using extensively so that they don’t rub unduly on your feet. When walking in the Mosque, it is permissible to wear leather socks, which will offer some protection. If you develop problems with your feet, seek medical advice immediately to prevent worsening problems. Cracking of the skin is common, which can cause pain with the risk of infection. Apply a moisturiser (for example aqueous or E45 cream) regularly to your feet to prevent them becoming dry, especially after Wudhu.

3. Low blood glucose levels

During Hajj, people with diabetes are more at risk of low blood glucose levels, mainly due to the higher level of physical activity, smaller meals, changes in usual food intake, and the different timing of meals. Excessive heat may also enhance insulin absorption from the injection site.

To avoid these, make sure you take your medications and meals regularly. It may be important to take a mid-morning snack, if your diabetes is well-controlled or you are prone to low glucose levels. Frequently monitoring of glucose levels is very important. Carry treatment for low blood glucose with you at all times. Your medication doses may need to be altered and therefore, please see your diabetes health professional before you leave.

Low blood sugar levels (less than 4mmol/L) must be treated immediately with one of the following:

- A small glass (150-200ml) of pure fruit juice
- A small amount (90-120ml) of original Lucozade
- Glucose tablets, such as 5-7 Dextrosol® tablets or 4-5 Glucotabs®
- 5 (halal) jelly sweets

Check your blood glucose after 10 - 15 minutes and if it is still less than 4.0mmol/l, repeat the treatment as above. After you have treated the low blood sugar level, you must have a snack, such as a slice of toast, half a sandwich or a bowl of cereal.

4. High blood glucose levels

To avoid these, make sure you take your medications and meals regularly. Remember to eat sensibly and avoid high sugar containing foods. Also be careful with portions of rice and other carbohydrates. Frequently monitor your blood glucose levels, and keep well hydrated. If your blood sugars are above 17mmol/L frequently, you should seek medical attention.
5. **Needing medications abroad**

Always carry a list of your medications with you. Carry the generic names of these rather than the trade names of your medications. You can check this with your diabetes health professional or pharmacist. If you are on insulin, you will need to check what strength of insulin you use as this may be different in Saudi Arabia.

6. **Staying well hydrated**

This is particularly important for people with diabetes, if your blood glucose levels are high, and when the weather is very hot. Drinking plenty of sugar-free and caffeine-free drinks and water, will allow you to avoid dehydration and heatstroke. Make sure you carry water bottles with you at all times. Suspected heatstroke should always be regarded as a medical emergency, and you should seek medical advice immediately.

7. **Headshaving**

Do not visit roadside “barbers” for the ritual of headshaving, as there is a high risk of infections such as hepatitis or HIV. Instead use designated barbers, who use new blades to minimise the risk of acquiring infections. It may be best to take along your own blades for the headshaving ritual.

**Summary**

Keeping well during Hajj will make sure that your time is spent well in ibadah. Please see your diabetes health professional before leaving. This pre-travel visit will allow for any medication changes to be made, for you to get a list of medications and a travel letter.

**Remember to:**

- Carry sufficient medications, syringes and needles
- Carry a travel letter confirming your diabetes diagnosis and a list of your medications
- Store insulin in a cool bag, away from direct sunlight
- Eat regular meals
- Take your medications regularly
- Check your blood glucose levels regularly
- Avoid heat and dehydration: avoid the midday sun, use an umbrella to reflect the sun, always carry water
- Wear comfortable footwear when permitted
- Seek medical advice if your blood sugars levels are continuously high, if you have diarrhoea, vomiting or any foot problems.

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