

Recommendations for patients with diabetes mellitus during hajj pilgrimage

[Mansour Siavash](#) and [Sepehr Haghighi](#)¹

Department of Endocrinology, [Isfahan Endocrine and Metabolism Research Centre](#), Isfahan University of Medical Sciences, Isfahan, Iran.

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Sir,

Hajj is one of the main pillars of Islam and is mandatory for all adult Muslims who can afford the journey and are in acceptable health.[1] Over two and half million pilgrims gather from different nationalities to perform pilgrimage in Saudi Arabia in the lunar month ZelHajjeh. A significant proportion of those performing Hajj are elderly and may suffer from chronic medical conditions. Considering the 10% prevalence of diabetes mellitus in this age group,[2] about 250000 diabetic patients will participate in this crowded pilgrimage. Many of them are also suffering from diabetic complications like eye or coronary heart disease and diabetic foot.[3,4] The Hajj duties can be demanding in terms of physical activities and mental effort. Due to a lot of changes in usual life of diabetic patients during hajj (e.g. geography, weather, diet and physical activities), they are prone to a real challenge. Increasingly, diabetes has been reported as a leading cause of morbidity and mortality during Hajj.[4,5] At a special part of hajj duties i.e. Ihram, some acts are forbidden for pilgrims (including blood extraction). This can affect self-monitoring of blood glucose by glucometer.

Some diabetic patients are at high risk for morbidities during hajj. They include people with poor glycemic control or severe and recurrent episodes of hypoglycemia and unawareness, recent ketoacidosis or hyperosmolar state and advanced diabetic complications such as renal disease. Patients with multiple daily insulin injections or sulfonylureas are also prone to some problems.[1,6] Here are some recommendations for

diabetic patients and their medical teams before and during this valuable spiritual pilgrimage.

Before travel

- Try to have a good control of diabetes mellitus (blood glucose, blood pressure, etc).
- Inform the caravan manager about your disease and medications.
- Prepare a check list of mandatory requirements.
- Complete your recommended vaccinations, including influenza and pneumococcal vaccines.[7–11]
- Prepare adequate medications and place them in separate containers.
- If possible, prepare a cool pack to store insulin.
- Prepare glucose and ketone dipsticks (to know the state of diabetes control during Ihram).
- Choose shoes, sandals and flip flops with appropriate shape and size (front of shoes should be wide enough to avoid extra pressure on your feet and toes during long walking).
- Pack your medications in carry-on luggage rather than in checked baggage. This is not only to prevent loss from bags being misplaced, but also because baggage stored in cargo holds can be subject to extreme temperature changes that may alter the potency of insulin.[12]

During travel

- Always carry some carbohydrates to be used in the hypoglycemic states (honey, jam etc).
- Try to adhere to a healthy balanced diet containing adequate, but not excess carbohydrates, with appropriate proteins and fiber but minimal (monounsaturated) fat. Use as desired vegetables and 2 units of fresh fruits per day but avoid fruit juices and syrups.[10,11]
- Drink at least 8 glasses of water daily and carry enough water bottles with yourself.[4]
- If use insulin, before Ihram, check your blood glucose by glucometer and urine

ketone by dipstick. If needed, use a small dose of insulin to cover hyperglycemia and or some bread for hypoglycemia.

- If use insulin, before and during long walking, decrease the dose of short and intermediate insulin about 20%. For patients on sulfonylurea drugs (e.g. glibenclamide), this small decrease (up to 50% decrease in the corresponding drug dose) can also be applied.
- Before Tawaf (circumambulation around Ka'bah) and Saay (walking between Safa and Marwah), consume some extra carbohydrate (bread is preferred).
- Walk slowly during Tawaf and saay, and try to protect your feet from damage by the ground tiles or other pilgrims.
- In case of fever, diarrhea, vomiting or any acute medical condition consult your medical team promptly instead of waiting in your residence.

Although challenging to diabetic patients, by good planning and pre travel consultation with your medical team, this nice spiritual pilgrimage can pass safe, without major health consequences.

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