Fasting, feasting, feet: religious festivals and diabetes

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For millions of us, religious festivals are important times to celebrate and affirm our faith. Festivals influence the behaviours of nations as well as individuals: for example, determining many national holidays.

Kumbh mela is a Hindu festival held every three years on one of four sites. It is believed that bathing in sacred rivers washes away sins. Attendance at Allahabad in 2013 was estimated at 120 million, the largest human gathering on earth. Pilgrims eat one meal a day: kachakhana (raw food). Morning river bathing is followed by prayer and meditation.

Most religious festivals involve food, usually feasting, often preceded by fasting, endurance tests, or penance. Some include alcohol or mind-altering substances – both potentially dangerous. Festivals may involve long journeys to a holy place; people go home to their families.

This article explores the potential impact of festivals on people with diabetes, with some brief examples.

Emotional effects
You are in full-on pre-Christmas mode, which usually consists of equal parts eagerness and anxiety. Whether you’re doing some last-minute wrapping, braving the wild masses at the department stores one last time or excitedly awaiting the arrival of your extended family for the holidays, the anticipation of it all is killing you...

It’s Christmas; it’s Christmas! The day we’ve waited for all year is finally here! If you’re anything like me, you were up with the sun, waiting in crazed impatience for the rest of your family...

The gifts have been opened, your belly has been stuffed... Your excited and festive persona has begun to diminish...

Festivals are often a time of stress and anxiety as well as blessing. Religious rituals and family traditions must be observed, the right presents chosen, delicious food prepared. Great expectations may generate pressure on those doing the preparation. Tensions rise as usually separate family units coalesce. Solitary people may feel lonely and depressed. Blood glucose may rise or fall with stress or excitement. Increased activity – shopping, cooking, and housework – may cause hypoglycaemia.

Fasting
World-wide, over 116 million people with diabetes may fast during the month of Ramadan. The date varies each year, and in different countries. Food, drink, oral medication, and smoking are forbidden during daylight. Food is eaten after sunset and before sunrise. It is believed that spiritual rewards for good deeds are multiplied during Ramadan, and there is an intense desire to participate in fasting, even among those who could seek exemption, such as the elderly, children, the infirm, and pregnant women.

Potential hazards include hyperglycaemia or hypoglycaemia, diabetic ketoacidosis, dehydration, and thrombosis. Potential benefits might include smoking cessation or diet control. Some key issues are altered timing of meals and medication in relation to activity and sleep, night-time food. Blood glucose testing is allowed during Ramadan as is glucose treatment for hypoglycaemia.

Oral anti-hyperglycaemic therapy was the predominant pre-Ramadan therapy for most patients (76.6%)... In all, 64% of patients reported fasting every day of Ramadan and 94.2% fasted for at least 15 days. There were 524 episodes of hypoglycaemia in 285/3250 (8.8%) participants.

Encourage everyone with diabetes wishing to fast to talk to their diabetes team who should be trained to provide appropriate advice. Leicester Diabetes has published teaching videos.

The International Diabetes Federation and the Diabetes and Ramadan International Alliance have published guidelines. Diabetes UK and the Muslim Council of Britain publish patient leaflets.

Feasting
Most festivals include high-sugar, high-fat food such as Mithai, Chiroti, Barfi (Diwali), Christmas cake, and Easter eggs. Much effort goes into food preparation and there is considerable pressure to eat it – a challenge for anyone trying to maintain a healthy diet, often requiring more glucose-lowering medication. A United States study found a weight gain of 0.78±0.1kg from mid-November (Thanksgiving) to January (Christmas, New Year). Diabetes UK provides advice and recipes.

Feet
A 51-year-old man with type 2 diabetes... had recently returned from the Haj. During the pilgrimage, his foot had been injured in a stampede... He was prescribed antibiotics... He subsequently presented... with fever, tachycardia and an oedematous left foot with cellulitis and gangrene of several toes which were later amputated.

The Haj (Hajj) is held annually in Mecca (Makkah); some two million people come from all over the world. Muslims are required, if able, to attend at least once. The 5-day ritual causes extensive physical and mental stresses. Heat, sun exposure, thirst, crowding, traffic congestions, steep inclines, rough terrain, and cultural diversity present extensive stressors. Infection may spread. Extensive local medical support is provided.

There are many religious pilgrimages world-wide, most involving long walks. Dancing is common at festivals, for example the 18-day Festival de la Candelaria in...
Puno, Peru, altitude 3830m (12 565ft). This risks both foot damage and hypoglycaemia (and, for the unacclimatised, altitude sickness).15 In Anastenaria, a festival observed in Northern Greece and Bulgaria to celebrate Saints Helen and Constantine, three days of procession, music, dancing and animal sacrifice culminate in fire-walking16 (not advisable for people with diabetes).

Prayer marks
Devotees who pray or meditate for long periods in kneeling or cross-legged positions may develop prayer marks or nodules on the forehead, knees, ankles and dorsum of the feet. While prayer marks rarely cause problems, warn people with diabetes to protect their feet, especially if they have neuropathy or vasculopathy.17,18

Dehydration
The thirst of hyperglycaemia or heat must be quenched. Avoiding fluids in a fast is dangerous and could worsen renal impairment or risk venous thrombosis.

Practical issues
An NHS Christmas message: ‘This is a hectic time of year, and it’s very easy to overlook the need to order and collect a repeat prescription.’19 Warn patients to get enough insulin and other medication. Routine health, social or pharmacy services may be reduced or limited over holidays. Remaining services will be overstretched. Check dates of national holidays at home and when travelling. A UK study found that for emergency medical admissions on public holidays, compared with admissions at other times, mortality at seven days was 48% higher, and mortality at 30 days was 27% higher.20 Festivals are often costly in food, gifts or travel. While most people are not working, some are busier around holidays: a courier with diabetes collapsed ‘in late December having worked through illness during the Christmas rush.’ He later died.21

Preparing for a religious festival
• Train the diabetes team about commonly-attended religious festivals in their locality.
• Remind patients to talk to the diabetes team.
• What does the festival involve?
• Check medical history, glucose balance and current physical status, especially feet.
• Assess risk – in general, fasting should be avoided by people with insulin-treated diabetes, anyone with a recent history of severe hypoglycaemia (or unawareness) or ketoacidosis, unstable glucose control, pregnancy, severe complications, comorbidities, acute illness, frailty, a very physical job, and those with cognitive problems.
• In people determined to fast, provide structured, personalised education, and diabetes team access; advise glucose testing; teach treatment of low or high glucose; advise stopping the fast if intercurrent illness or glucose instability. Discuss hydration.
• Tailor advice for complications.
• Ensure good supplies of diabetes therapy and other medications.

Faith | Festival
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Baha’i | Naw Ruz, Ridvan Baha’i
Buddhism | Nirvana (Parinirvana), Wesak
Christianity | Easter (end of Lent), Christmas
Hinduism | Holi, Diwali (Divali), Kumbh Mela, Navratri / Durga Puja / Dussehra / Vijayadashami Puja
Islam | Eid-ul-Adha (end of Haj), Eid-ul-Fitr (end of Ramadan)
Jain | Mahavir Jayanti
Judaism | Pesach (Passover), Rosh Hashanah, Hanukkah
Rastafarian | Birthday of Haile Selassie 1
Sikhism | Vaisakhi, Guru Nanak
Zoroastrian | Fravardigan/Muktad, Khordad Sal, Tir Jashan

Sources:

An annual calendar of religious festivals can be found in:

Table 1. Some examples of religious festivals

• Do they need travel advice?22–24
• On return: check diabetes and general health, especially feet; review what happened for future learning.

Summary
Help people with diabetes to participate in religious festivals safely. Provide risk assessments, diabetes education and support by trained staff. Encourage thorough planning, including travel advice. Review returning patients – and check their feet.

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Footnote: Some examples of religious festivals are provided in Table 1.

It is impossible to list every religious festival, and the requirements of individual festivals vary between and within faiths and nations: please forgive any misunderstandings.

References


