# Diabetes and Fasting for Muslims A Resource for Health Professionals

Al-Baqara (The Cow) - (Arabic)

2:185 Ramadhan is the (month) in which was sent down the Qur'an, as a guide to mankind, also clear (Signs) for guidance and judgment (Between right and wrong). So every one of you who is present (at his home) during that month should spend it in fasting, but if any one is ill, or on a journey, the prescribed period (Should be made up) by days later. Allah intends every facility for you; He does not want to put to difficulties. (He wants you) to complete the prescribed period, and to glorify Him in that He has guided you; and perchance ye shall be grateful.

شَهْرُ رَمَضَانَ الَّذِيَ أُنزِلَ فِيهِ الْقُرْآنُ هُدًى لِّلنَّاسَ وَبَيِّنَاتٍ مِّنَ الْهُدَى وَالْفُرْقَانِ فَمَن شَهِدَ مِنكُمُ الشَّهْرَ فَلْيَصِمُمْ وَمَن آانَ مَريضًا أَوْ عَلَى سَفَرِ فَعِدَّةٌ مِّنْ أَيَّامٍ أَخَ يُريدُ الله بِكُمُ الْيُسْرَ وَلِثُكْمِلُوا الْعِدَّةَ وَلِثُكَبِّرُوا الله عَلى مَا وَلا يُريدُ بِكُمُ الْعُسْرَ وَلِثُكْمِلُوا الْعِدَّةَ وَلِثُكَبِّرُوا الله عَلى مَا وَلا يُريدُ بِكُمُ الْعُسْرَ وَلِثُكْمِلُوا الْعِدَّةَ وَلِثُكَبِّرُوا الله عَلى مَا هَذَا أَمْ وَلَعَلَكُمْ تَشْكُرُونَ وَلَا يُرَالِهُ الْعُلَمُ تَشْكُرُونَ





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# **Fasting during Ramadan**

Fasting during Ramadan<sup>1</sup> is one of the five pillars of Islam, and many people with diabetes choose to observe this religious duty. The following are suggested guidelines to help people with diabetes fast safely<sup>2</sup>.

#### What is Ramadan?

Ramadan is the holy month for Muslims, falling in the ninth lunar month in the Islamic calendar year. Because the timing of Ramadan is linked to the sighting of the new moon, the timing of this month varies. Ramadan is a period of worship, self-discipline, austerity and charity. The most important significance of Ramadan is that Muslims are required to observe fasting during daylight hours. During this month foods and fluids are only allowed at night so fasting extends from dawn to sunset – the exact length of time dependent on geographical location and season. In December, in Hobart, fasting can last over 15 hours a day.

In 2008, Ramadan is expected to commence on 1 September and to continue until 1 October.

Despite being exempt, people with diabetes often wish to fast because of the status of Ramadan. It is important that healthcare professionals draw on evidence-based practice and closely liaise with their patients to ensure Muslims who have diabetes and are fasting do so as safely as possible.

Longer gaps between meals and greater amounts of foods – in particular, a higher intake of carbohydrate – may mean people with diabetes may experience large swings in blood glucose levels during Ramadan.

The following general dietary guidelines should help control blood glucose levels during Ramadan:

- Limit the amount of sweet foods taken at Iftar (after sunset). Have small amounts of foods such as ladoo, jelaibi or burfi or bacalavas and other Arabic sweets.
- Fill up on starchy foods such as basmati rice, chapati or naan or Lebanese bread.
- Include fruits, vegetables, dhal (lentil) and yoghurt in your meals at Iftar and Sehri (early morning).
- Try to have the meal at Sehri at the proper time just before sunrise, not at midnight. This will spread out your energy intake more evenly and result in more balanced blood glucose when fasting.

<sup>&</sup>lt;sup>1</sup> © Diabetes UK. This information is reproduced from *Fasting during Ramadan* with kind permission of Diabetes UK.

<sup>&</sup>lt;sup>2</sup> This information was current for Ramadan in 2004

- Choose sugar-free types of fizzy drinks and cordials. Choose sugar-free drinks or water to quench your thirst. Avoid adding sugar to drinks; use an intense sweetener where needed, eg Canderel, Sweetex, Hermesetas.
- Limit fried foods such as paratha, puri, samosas, chevera, pakoras, katlamas, fried kebabs and bombay mix. Measure the amount of oil used in cooking (use 1–2 tablespoons for a four-person dish).

The traditional rich foods associated with Ramadan and with the religious festival Eid-ul-Fitr, which marks the end of fasting, may also present a risk of weight gain for Muslims with diabetes. People with diabetes should be educated about the effects of such foods on their diabetes control and weight. Though such foods should be limited, advising people to avoid sugary and fatty foods totally would be counter-productive and allowing a small amount in their eating plan may aid compliance. Advising at this time is an opportunity to educate the family with regards to long-term, healthier dietary choices. It is important that if healthy eating patterns are adopted they continue after Ramadan as part of a healthier lifestyle.

# **Changes to treatment**

This may depend on the quantity of food consumed at Sehri and Iftar and length of fast.

#### Diet alone

People whose diabetes is controlled by diet and physical activity alone should be able to fast safely. However, food and drink at break of fast should be carefully thought out, using low-calorie drinks limiting sweets and fried foods.

#### **Patients on Medication**

It would not be advisable to make any changes in medication without consulting the treating doctor. However below are listed some of the general considerations that would be addressed in such consultations. Metformin

Again, these people should be able to fast safely, there being a low danger of hypos on metformin alone (monotherapy). However, they should be made aware of the need to change the timing of their tablets during Ramadan.

- Tablets should be taken at the end of fast, i.e., in the evening, in order to cover period of eating.
- Consider a lower dose or even stopping for duration of fast if the patient feels unwell on Metformin.
- Use low-calorie drinks and limit sweets.

## **Glitazones (Rosiglitazone and Pioglitazone)**

The dosage of these taken without other medications should not be affected if

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taken with or without food at the same time each day unless the overall calorie and fat intake content is lower. In general the risk of hypoglycaemia is low with these agents.

# Sulphonylureas (including combination of sulphonylureas and metformin or sulphonylurea and glitazone)

- If on Glibenclamide, think about changing to quick-acting sulphonylurea (eg Glipizide) for duration of fast, to be taken once a day before the break of fast meal.
- Glimepiride should be safe providing there is some dose reduction to allow for their long-acting nature.

# **Prandial regulators**

Repaglinide may be particularly useful for fasting because of its short action and it can be taken when eating and not taken when fasting. This has been shown to help with glycaemic control during Ramadan compared with sulphonylureas.

### Insulin

People who treat their diabetes with insulin may be advised not to fast and to discuss this with religious advisors. In particular, people with Type 1 diabetes whose control is poor and who are prone to ketoacidosis should be advised not to fast.

For those who do decide to fast, the most important message is not to stop taking insulin during Ramadan. This advice may not apply to people with Type 2 diabetes treated with insulin. However, people need to be very careful to make appropriate adjustments to their insulin dosage with help from their diabetes team. The team should also negotiate with the patient as to how long they are able to fast safely.

The following general guidelines should be considered:

- Strongly recommend avoiding premixed insulin during fasting. However, if the patient insists on staying on mixed insulin, the doses should be changed so that less insulin is given at Sehri.
- Consider a lower dose of long-acting insulins (eg Isophane or glargine) to avoid higher risk of hypos mid-day/mid-fast.
- Insulin prandial analogues (Lispro and Aspart insulins) are useful for fasting because they allow people to inject during or just after their break of fast meal, and give a lower risk of hypoglycaemia during the night.
   These have been shown to help with glycaemic control during Ramadan compared with regular human insulin.<sup>2</sup>
- Where possible, recommend rest during the day to help avoid low blood glucose levels.

## References

**1.** Omar M, Motala A. Fasting in Ramadan and the diabetic patient. *Diabetes Care* (1997); 20:12, 1925-1926.

**2.** Pinar R. Management of people with diabetes during Ramadan. *British Journal of Nursing* (2002); 11(20): 1300-3, Nov 14-27.

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