

Ramadan and diabetes: A guide for patients

Fasting in Ramadan has many spiritual and health benefits. Ramadan gives us the opportunity to fulfil our duty to Allah (swt), cleanse our bodies and souls, and practice self-restraint. For some people with diabetes, fasting can be dangerous or can cause problems to your health.

This leaflet has been created to help answer common questions regarding your diabetes and how it may be affected in Ramadan. **Before you decide to choose to fast, please read the advice below and talk to your GP, diabetes doctor or diabetes nurse.**

1. What happens to my body when I fast?

When we don't eat during a fast, at about 8 hours after our last meal our bodies start to use energy stores to keep our blood glucose (sugar) levels normal. For most people, this is not harmful. If you have diabetes, your body cannot use the glucose as well. With diabetes, especially if you take certain tablets or insulin, you are at risk of **hypoglycaemia** or "hypos" (low blood glucose levels). This year, the fasts are long and the risks of hypoglycaemia and **dehydration** (lack of water) are high. Another problem that can occur if you have diabetes, are the risk of **high sugars** following the larger meals that we eat before and after fasting (at Suhoor/ Sehri and Iftar).

Hypoglycaemia, high sugar levels and dehydration can be dangerous for people with diabetes.

2. I have diabetes, can I fast?

Most people with health problems, such as diabetes are exempt from fasting. Choosing to fast is a personal decision that you should make with advice from your diabetes team. **Speak to your GP, diabetes nurse or diabetes doctor before fasting.** If your diabetes is well-controlled with diet or tablets and you do not have any complications of diabetes then you may be able to fast. If your diabetes team think your body will not cope well with fasting, or there are signs of damage due to high blood glucose levels, then they may recommend that you do not fast.

Fasting is not recommended in the following situations:

- If you have type 1 diabetes
- If you use insulin injections more than two times a day
- If you use mixed insulin preparations, e.g. Novomix 30, Humulin M3
- If you have problems with frequent hypoglycaemia
- If you have had diabetic ketoacidosis or DKA (dangerous levels of ketones and acids in the blood) within the past six months
- If you have had a hospital admission for very high blood glucose within the last six months
- If you have had severe hypoglycaemia (low blood glucose) in the past six months
- If you have hypoglycaemia but do not have any symptoms
- If you have poor control of your diabetes [HbA1c > 75mmol/mol (or > 9%)]
- If you have complications of diabetes, such as problems with your kidneys, heart or poor vision
- If you have an acute illness, including a diabetic foot infection or foot ulcer
- If you are pregnant

Remember, if you cannot fast, you can complete your duties by offering charity or providing food to the poor. Speak to your local Imam for more information about this, or use Muslim charities such as Islamic Relief, Islamic Aid and Muslim Aid.

Remember, if you cannot fast this Ramadan, you may be able to make up the fast at a later date, perhaps during the winter months.

If you do decide to fast, you must liaise with your diabetes team prior to Ramadan to ensure that you obtain the best support and advice to make the most of this blessed month, and to stay safe.

3. I am pregnant and have diabetes, should I fast?

If you are pregnant and have diabetes, you are exempted from fasting. **If you fast then you could put yourself and your unborn child at risk.** Remember that you can complete your duties by offering charity or providing food to the poor and you may be able to make up the fast at a later date.

4. I have diabetes and I want to fast, should I see my doctor?

Yes, if you would like to fast then you must see a member of your diabetes team or your GP/practice nurse as soon as possible, if possible before Ramadan starts to discuss your diabetes control and whether it is safe for you to fast. Preparation is very important, especially if you are taking any medications and/ or insulin for your blood glucose control.

5. Should I continue to take my medications?

Yes, it is **very important that you continue** to take your medications in Ramadan. However, some treatments, for example insulin and gliclazide may make your blood glucose go low (hypo). When you don't eat and take these types of treatments, you may be at greater risk of hypos. The dose and timings of your medications, especially insulin and gliclazide may need to be changed.

If you do not take your medications, due to the change of the type of foods eaten in Ramadan and timings of meals, you may be at risk of blood glucose levels getting high.

You MUST speak to your doctor or diabetes nurse about your diabetes treatment before Ramadan.

6. What problems could I encounter in Ramadan with my diabetes?

There are three main problems that can occur in Ramadan if you have diabetes:

- **Hypoglycaemia (“hypos”)**

These are low blood glucose levels, below 4mmol/l.

- **High blood sugar (glucose) levels**

These can lead to health problems in the short and long term.

- **Dehydration**

This is when there is not enough water in your body. This can also happen if your blood glucose levels are too high. If you become dehydrated, your blood glucose levels can get higher and you can become very ill.

In the UK, Ramadan is now in the summer months and the length of fasts is very long (can be 17 hours long). Long fasts put you at higher risk of hypoglycaemia and dehydration. If the weather is hot you can also become dehydrated without drinking, which can make you ill. High blood glucose levels can also occur if you become dehydrated and/ or if you eat excessively at Suhoor or Iftar.

7. What is Hypoglycaemia or a Hypo?

Hypoglycaemia or a “hypo” happens when your blood glucose levels become low (below 4.0mmol/l).

Symptoms can vary from person to person, but can include:

- Feeling sweaty
- Feeling dizzy
- Feeling anxious or unwell
- Trembling and shaking
- Tingling of the lips
- Feeling hungry
- Going pale
- Palpitations/ heart racing

If you get these symptoms whilst you are fasting, immediately check your blood glucose level and be prepared that you may have to break your fast if you have hypoglycaemia.

8. How do I treat a hypo?

Your fast MUST END if:

- Your blood glucose falls to below 3.5mmol at any time of the fast

You must treat the hypoglycaemia immediately with one of the following:

- A glass of Lucozade, fruit juice or non-diet drinks, like Cola
- 3 or more glucose/ dextrose or Lucozade tablets
- 5 sweets e.g. Jelly Babies
- glucose gel (available on prescription if you are treated with insulin)

The exact quantity will vary from person to person. Check your blood glucose after 15 minutes and if it is still low, repeat the treatment as above.

After you have treated the low blood glucose level, you must have a snack, such as a sandwich or a bowl of cereal.

Never ignore the warning signs of hypoglycaemia, or you could become very unwell. Low blood glucose levels are very dangerous and if untreated may lead to accidents, becoming unconscious or having a seizure.

9. What worrying signs should my family and friends look out for?

Your family must know what signs to look out for if you get a hypo and be able to treat you, in case you become unwell and are not able to treat yourself.

Early signs include sweating heavily, trembling and shaking and going pale. Later signs include slurring your words, behaving oddly, being unusually aggressive or tearful, having difficulty in concentrating.

If you are still conscious and can swallow, someone can give you glucose gel if you have this.

If your hypo is more severe and you cannot treat it yourself or if you are unconscious, your family or friends should **call an ambulance immediately**.

10. Why are high blood sugar levels a problem during the fast?

High blood glucose levels can occur if you eat a large amount of sugary foods at Suhoor or Iftar, if you do not take your medications or if you become unwell. High blood glucose levels can make you unwell, dehydrated and can lead to damage to the nerves, blood vessels and body organs, such as the kidneys and eyes. If blood glucose levels become very high, then you may become unconscious.

It is very important for you to continue to take your medications (although the doses and timings of your medication may need to be changed and you should see your doctor/nurse for this), that you eat sugary or fatty foods in moderation, that you make sure that you drink plenty of fluids between Iftar and Suhoor. **Do not fast if you are unwell.**

If you have Type 1 diabetes, there is a risk that your blood glucose levels may become too high and you can get dangerous levels of ketones and acids in your blood. This is known as diabetic ketoacidosis and is a very serious condition.

Symptoms of high glucose levels:

- Feeling very thirsty
- Passing a lot of urine
- Extreme tiredness

You should check your blood glucose levels regularly when you are fasting and if you start to feel unwell.

Your fast MUST END if:

- Your blood glucose goes over 16mmol/l

If your blood glucose levels stay high and you have symptoms, speak to your doctor or diabetes nurse.

11. Am I at risk of dehydration?

This Ramadan, the fasts are longer and this means long hours without fluid intake.

The risks of dehydration are higher if you are:

- diabetic
- have high blood glucose levels
- elderly
- pregnant
- taking tablets called diuretics (often taken for high blood pressure)

The risk of dehydration is also worse in hot weather. **Make sure you drink plenty of sugar-free fluids**, such as water before you start the fast and between the times of Iftar and Suhoor.

Remember tea, coffee and some fizzy drinks, such as cola, contain caffeine, which is a diuretic and will make you lose water as urine.

Symptoms of dehydration include:

- Dizziness
- Becoming disorientated
- Loss of consciousness
- Very little urine output

If you get any of these symptoms you should break the fast and drink.

12. If I fast, how should I stay safe?

Please see your doctor or diabetes nurse before Ramadan because your treatment for diabetes may need to be changed. They may also advise you not to fast if you are on certain medications for your diabetes, if you have any health problems which can get worse or if you are at risk of hypos.

If you decide to fast, here are some guidelines to keep you safe:

- Always carry glucose treatment with you
- Always have diabetes identification, such as a medical alert bracelet
- Test your blood regularly to monitor your glucose (sugar) levels. This will not break your fast
- Test your blood glucose level if you feel unwell during the fast
- If your glucose level is high or low, you MUST treat this
- If your blood glucose levels falls less than 3.5mmol/l, end the fast immediately and treat the low blood glucose level
- If your blood glucose levels get higher than 16 mmol/l, end the fast immediately
- If you become dehydrated, end the fast immediately
- You should never stop your insulin, but you MUST speak to your doctor because you may need to change the dose and times of your insulin injections

13. Is it OK to test my blood glucose in Ramadan while I am fasting?

Yes, testing your blood glucose levels regularly is important and will keep you safe whilst fasting. This will not break you fast.

14. Do I need to wake up for Suhoor (Sehri)

As Ramadan will now be in the summer months for some years, the fasts can be as long as 17 hours in the UK. Long hours without eating in a diabetic people, increases the risk of hypoglycaemia. You must try to eat a meal at Suhoor just before sunrise and not at midnight, as this will help to keep your glucose levels more balanced through the fast.

15. What types of food should I eat at Suhoor (Sehri)?

At Suhoor you should eat starchy carbohydrates (complex carbohydrates) which release energy slowly together with fruit and vegetables. This includes pitta bread, chapattis, rice, semolina and cereals. This will help keep your blood glucose levels more stable through the fast. As with all meals, eat sensibly, do not over eat and remember to drink plenty of water. Please see your dietician for further advice.

16. What types of food should I eat at Iftar?

Remember to eat sensibly and healthily all year round but also in Ramadan. Overeating and eating the wrong foods in large quantities will not only make you put on weight but will also lead to big increases and imbalances in your blood glucose levels. Remember that Ramadan is also about self-control and discipline. Please see your dietician for further advice.

Below are a few suggestions to prevent the big changes in blood glucose levels:

- Dates to break the fast contain a lot of sugar. Have a sensible portion (1-2 dates)
- Do not eat too many sugary foods; have a maximum of one small sweet, such as Indian mithai (ladoo, jelaibi and burfi), baklava, rusks, cakes, biscuits, chocolate and desserts, such as rice pudding, kheer, sweet vermicelli
- Avoid fried foods such as paratha, puri, samosas, chevera, pakoras, katlamas, fried kebabs, fried chicken and chips
- Eat more starchy food such as basmati rice, chapatti, bread, semolina and pasta
- Have fruit, vegetables and dhal in your meals
- Reduce the amount of salt in your cooking and preparation of food
- Reduce the amount of oil used in your cooking and avoid using ghee and butter

17. What types of drinks can I have?

Fasting can put you at risk of dehydration, particularly now that Ramadan is falling in the summer months in the UK, with long hours of fasting and also if you have high blood glucose levels. Drink plenty of fluids (sugar-free), particularly water at Suhoor and after Iftar.

Advice about drinks:

- Avoid drinking tea or coffee, these contain caffeine and can make you dehydrated
- Drink sugar-free drinks
- Some sugar-free drinks, such as diet cola also contain caffeine, so avoid these
- Moderate the amount of fruit juices you drink as these contain naturally-occurring sugars

18. What types of food should I eat at Eid-ul-Fitr?

Many of the foods eaten in the celebration can make your blood glucose levels high and make you put on weight. Be sensible and moderate the amounts you eat on this auspicious day.

19. Can I pray Taraweeh?

Remember Taraweeh can be a strenuous activity and you could become dehydrated or have low blood glucose levels.

To avoid problems during Taraweeh, make sure you:

- Eat starchy foods with Iftar as they are digested slowly
- Drink plenty of water following Iftar
- Take a bottle of water and glucose treatment with you to Taraweeh

If you are having low blood glucose levels after Taraweeh, you may need to adjust your diabetes treatment. You must see your diabetes doctor or nurse.

20. Can I walk to Taraweeh?

Unless you have foot problems related to your diabetes, walking to Taraweeh is a good exercise. **Remember** if you are taking insulin, walking long distances or walking regularly, you may need to reduce your insulin dose or take a piece of fruit before you walk to stop your blood glucose going low. **Make sure that you carry hypo treatment with you at all times.**

21. Is Ramadan a good time to give up smoking?

If you have diabetes, smoking increases your risk of heart problems. Ramadan is a good time to build up your self-control and give up smoking. Talk to your GP if you are interested. There is also the NHS Smokefree website www.smokefree.nhs.uk/ and helpline 0800 022 4 332 to speak to a trained, expert adviser. They have advisers in other languages.

Please take note of the advice that your diabetes team gives you. If you have been advised NOT to fast, please take this advice on board and do not fast.

References and Useful links:

1. Ramadan, fasting and diabetes – Diabetes UK.
www.diabetes.org.uk/ramadan
2. Ramadan health guide: a guide to healthy fasting. A Department of Health publication.
http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_078408.pdf
3. Looking after diabetes during Ramadan. A guide for patients. Information booklet, University Hospitals Leicester. <http://www.leicestershirediabetes.org.uk/668.html>
4. NHS Smokefree website: www.smokefree.nhs.uk
5. The facts about fasting during Ramadan. Information Kit for people with Type 2 diabetes. Produced by MSD.
6. Hui E et al. Management of people with diabetes wanting to fast during Ramadan. *BMJ* 2010;340.
7. Karamat, MA, Syed A and Hanif W. Review of diabetes management and guidelines during Ramadan. *JRSM* 2010;103:139-147.
8. Al Arouj M et al. Recommendations for the management of diabetes during Ramadan. *Diabetes care* 2010;33:8.

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