

Islamic Perspectives

Diabetes Mellitus and Ramaḍān Fasting

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Abstract: Diabetes Mellitus affects patients of all faiths and Muslims are no exception. While Muslims who are physically ill are in general exempt from fasting in the month of Ramaḍān, many diabetic patients fast. Unless their diabetes is in good control and they are under the supervision of a physician, they may endanger their lives by fasting.

In this presentation, the medical aspects of Ramaḍān fasting, criteria for who can fast and some helpful guidelines for those who do fast are discussed in light of research on fasting in Ramaḍān. Some suggestions for evaluation and control of diabetes with available agents are also discussed. A diabetic diet menu from three different ethnic backgrounds is given.

Key Words: Ramaḍān, fasting, diabetes mellitus, diabetic diet menu

Diabetes Mellitus affects people of all faiths. Many diabetic Muslims have a desire to fast during the month of Ramaḍān, although if they cannot for health reasons, they have a valid exemption. The dilemma for physicians and Muslim scholars is whether or not Muslim diabetic patients (1) should be allowed to fast if they decide to; (2) can fast safely; (3) can be helped to fast if they decide to; (4) can have their disease monitored at home; and (5) are going to derive any benefit or harm to their health. Fasting during Ramaḍān by a Muslim diabetic patient is neither his right nor Islamic obligation, but only a privilege to be allowed by his physician, at the patient's request, knowing all the dangers and assuming full responsibility in dietary compliance and glucose monitoring, with good communication between the physician and the patient.

Psychological State Of Diabetic Patients During Ramaḍān Fasting

Diabetes mellitus itself adversely affects patients' psychological states by changes in glucose metabolism, blood and CSF osmolality, needs for discipline and compliance, fear of long term complications and threat of hypoglycemic attacks and the possibility of dehydration and coma.

On the other hand, fasting during Ramaḍān has a tranquilizing effect on the mind, producing inner peace and decrease in anger and hostility. Fasting Muslims realize that manifestations of anger may take away the blessings of fasting or even nullify them. Diabetics know that stress increases the blood glucose by increasing the catecholamine level, and any tool to lower stress such as biofeedback or relaxation improves diabetic control. Thus, Islamic fasting during Ramaḍān should have a potentially beneficial effect with regard to diabetic control.¹⁻⁵

Educational Program for Diabetics During Ramaḍān
It should be directed toward (a) diabetic home management; (b) preparing them for Ramaḍān; (c) recognizing warning symptoms of dehydration, hypoglycemia and other possible complications. Patients should be taught home glucose monitoring, checking urine for acetone, doing daily weights, calorie-controlled diabetic diet, need for sleep and normal exercise. They should be able to take pulse, temperature, look for skin infection and notice changes in the sensorium (mental alertness). They should be on special alert for any colicky pain, a sign for renal colic, or hyperventilation, a sign of dehydration. Diabetics should be able to seek medical help quickly rather than wait for the next day.⁶⁻⁹

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Criteria Allowing Diabetics to Fast During Ramaḍān
a. Diabetics over age 20. Type 1 Diabetes before age 20

Dietary Guidelines and Menu for a 1500 Calorie ADA Diet (courtesy Kauser Siddiqui, R.D.)

Ṣuḥūr - Pre-Dawn Meal

	American	Indo-Pakistani	Middle Eastern
Fruit 1	1/2 cup Orange Juice	1/2 Grapefruit	1/2 Grapefruit
Starch 3	1/2 cup Oatmeal 1 English Muffin	1 Pita Bread 1/2 cup Potato <i>Bhujia</i>	1 Pita Bread 1/3 cup <i>Fil Mudammis</i>
Meat 2	1 Boiled Egg 1/4 cup Cottage Cheese	2 egg Omelet 1 oz Feta Cheese	1 Boiled Egg
Fat 1	1 teaspoon Margarine	1 teaspoon Olive Oil	1 teaspoon Olive Oil and 2 black Olives
Skim Milk 1	1 cup Skim Milk	1 cup Skim Milk	1 cup Milk or Yogurt
Free Foods	2 teaspoons Sugar Free Jam	Tea	Tea

'Iftār - Post Sunset Ending the Fast

Fruit 1	2 large Dates	2 large Dates	2 large Dates
Starch 1	6 small Vanilla Wafers	1/3 cup <i>Chana Chaat</i>	1/3 cup <i>salaāt dummus</i>
Skim Milk 1	1 cup Skim Milk fort tz i	1 cup <i>Lassi</i>	1 cup <i>Rabat</i>
Dinner			
Meat 3	3 oz Roast Beef	3 oz <i>Bhuna Gosht</i>	3 oz <i>Tikka Kebūb</i>
Starch 2	1 small Baked Potato 1 Dinner Roll	1/3 cup <i>Daal</i> 1 <i>Chapati</i>	1/3 cup Lentil Soup 1 Pita Bread
Vegetable 2	1 cup Tossed Salad (carrot, cucumber, tomato, radish) 1/2 cup Steamed Broccoli	1 cup Sliced Raw Vegetables (tomato, cucumber, onion) 1/2 cup <i>Bhindi Bhujia</i>	1 cup Tomato and Onion (cooked with <i>Tikka Kebūb</i>) 1/2 cup Cooked Cauliflower in Tomato Sauce
Fat 1	2 teaspoons Sour Cream	1 teaspoon Oil used in cooking	1 teaspoon Oil used in cooking
Fruit 1	1 Fresh Apple	15 small Grapes	1 Fresh Apple
Free Foods	Lettuce (for salad) 2 Tablespoons Reduced Calorie Dressing Coffee	Tea	Tea

Bedtime Snack

	American	Indo-Pakistani	Middle Eastern
Fruit/Starch	3 Graham Crackers	1/2 Mango	2 Tangerines
Skim Milk 1	1 cup Skim Milk	1 cup Skim Milk	1 cup Milk or Yogurt

is very brittle. These patients are more liable to have hypoglycemia and should not be allowed to fast.

b. Female diabetics over age 20 if not pregnant or nursing.

c. Body weight normal or above ideal body weight.

d. Absence of infection or co-existing unstable medical condition ie Coronary artery disease, severe hypertension (BP 200.120), kidney stones, COPD, or Emphysema.

e. Stable diabetic on oral hypoglycemics or selected cases of Insulin-requiring diabetics.

f. Fasting blood glucose under 120. mg/dl, after meal blood glucose under 160 mg/dl and HbA1c under 7%.

For patients with the Metabolic Syndrome consisting of mild to moderate obesity, hypertension and/or hyperlipidemia, Ramaḍān fasting has a therapeutic effect.¹⁰

Who Should Not Fast in Ramaḍān

A. Type 1 and unstable Diabetics

B. HbA1c over 12% or history frequent hypoglycemia

C. Presence of infection, sever heart disease, gall bladder or kidney disease, renal colic or emphysema unless certified by a Physician experienced in treating such patients

Check Up of Diabetic Patients Before and During Ramaḍān

For three months before Ramaḍān, the patient should have a monthly visit with his/her physician which will include a physical examination, blood pressure, blood glucose, HbA1c, cholesterol, BUN and creatinine

During Ramaḍān, the patient should have weekly visits to show the glucose log book. HbA1c, BUN and cholesterol measurement can be done after fast is over.⁶⁻⁹

Diabetic Medication and Fasting

Oral agents: Metformin should be stopped. Glypizide can be continued. Half the dose can be taken before Saḥūr (pre-dawn meal) and the other half immediately after 'iftār (food or drink consumed to end fasting). Drugs like Avandia and Actos and similar medications can be continued. Avandia can be given in a dose of 2, 4 or 8 mg. Actos can be given in a dose of 15, 30 or 45 mg. Both of these can be taken any

time between 'iftār and saḥūr as they are long-acting .

Insulin: Do not recommend NPH or Regular insulin. Low dose Lantus (Glargine) would be the best. Low means 1/2 to 1/3 of pre-Ramaḍān dose given after 'iftār. Supplemental Humalog or Novolog can be given before 'iftār and saḥūr. A dose of 6-12 units depending on response and post prandial hyperglycemia would be appropriate. Use of new drugs Byetta and Symlin had not been studied in Ramaḍān fasting though Byetta seems to be promising.

Questions from Fasting Muslim Patients

May we have finger stick blood draw for blood glucose? Yes

May we take medicine during fasting? Tablet - no, patch -yes, inhaler -yes, injection-no.

d. When does a diabetic break his fast before sunset? When blood glucose is less than 60 or over 400.

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