



PRAYER AND FASTING WITH DIABETES

Informed Clients of Faith Can Avoid Serious Health Risks

By Constance Brown-Riggs, MSED, RD, CDE, CDN

Many religious faiths recommend setting aside time for prayer and fasting—a sacred time to commune with God while abstaining from all food, drink, or both.

Fasting can last for one day, seven days, one month, or longer. People of the Jewish faith fast for 25 hours from sundown to sundown during Yom Kippur. Muslims fast during the daylight hours for the entire month of Ramadan. And many Christians fast and pray for 40 days during the Lenten season or sporadically throughout the year when there's a need to reinforce spiritual discipline, receive direction from God for their lives, or experience divine intervention during tough times.

While fasting is a commendable spiritual practice, it's one that could come with major health risks for people who have diabetes.

Fasting During Ramadan

Of all the spiritual fasts, Ramadan represents a particular challenge for people with diabetes and their healthcare providers. During the month of Ramadan, which begins at a different time each year according to the Islamic calendar, Muslims abstain from all food and drink, the use of oral medications, and smoking from just before dawn until sunset.¹ In contrast, the 40-day fast during the Lenten season for Christians is less restrictive. Christians with or without diabetes may give up eating certain foods or meals throughout the season but not all food entirely, and they continue to take their medications, so they're much less likely to develop health problems. For a

Muslim with diabetes, going without food and drink for several hours per day and for days at a time often leads to serious complications.

For this reason, healthcare providers have discouraged people with diabetes from fasting during Ramadan.¹ According to the Islamic faith, Muslims with diabetes aren't required to fast, since people who are sick, elderly, pregnant, or nursing are exempt.² Yet, because Ramadan is believed to be the most holy and notable time of the Islamic year, believers are reluctant to give up this practice. Results of a 2001 study called Epidemiology of Diabetes and Ramadan (EPIDIAR) found that many Muslims fasted despite their diabetes diagnosis. The study, which sampled more than 12,000 Muslims with diabetes from 13 Islamic countries, found that 43% of those with type 1 diabetes and almost 80% of those with type 2 diabetes fasted.³ According to some estimates, more than 50 million Muslims with diabetes worldwide will fast during Ramadan.¹

So it's important for healthcare providers to realize that fasting for religious reasons is a personal, spiritual decision and one that devout clients probably won't take lightly. But if patients receive sound advice and encouragement from dietitians, other healthcare providers, and religious leaders, they have a better chance of managing their diabetes more effectively during this critical time.

Communicating the Risks

To be most helpful, dietitians and healthcare providers can ensure diabetes patients of faith and their spiritual communities understand the adverse effects of fasting.

"One of the greatest risk factors of fasting in people with diabetes is severe hypoglycemia," says Steven Edelman, MD, a professor of medicine at the University of California, San Diego, and founder and director of the nonprofit organization Taking Control of Your Diabetes. The EPIDIAR study found that severe hypoglycemia occurred more frequently in 2001 during Ramadan than the preceding year.

Hyperglycemia is another risk factor associated with fasting, especially in those who overeat when they break their fast or eat too many carbohydrates. In the EPIDIAR study, participants with type 2 diabetes showed a fivefold increase in severe hyperglycemia, requiring hospitalization during Ramadan. Those with type 1 diabetes experienced a threefold increase in hyperglycemia with and without ketoacidosis. The rate of hyperglycemia was even higher among those whose blood sugar was poorly controlled before the start of Ramadan.³

Moreover, diabetes patients can experience dehydration while fasting due to decreased fluid intake and excessive perspiration. This is of particular concern for people living in hot and humid climates and those who engage in physical labor.¹ Dehydration can lead to orthostatic hypotension, hypovolemia, and increased blood viscosity, which can raise the risk of thrombosis and stroke.¹

Nevertheless, the level of risk for these complications depends on how well an individual's blood sugar is controlled before beginning a fast. Type 2 diabetes patients who are treated with metformin, thiazolidinediones, or diet alone and whose blood sugar is controlled are at low risk of complications associated with fasting.¹

"For people with type 1 [diabetes], if the basal rate is set correctly, fasting is the best way to keep blood glucose under control," Edelman says. "It's when you eat food that it becomes more difficult to manage. You've got to count carbs and make adjustments in bolus insulin."

The AADE7 Plan for Successful Fasting

So how can dietitians best counsel diabetes patients of faith who embrace fasting and prayer?

The American Association of Diabetes Educators (AADE) created the AADE7 Self-Care Behavior checklist, a set of principles designed to help clients enjoy healthier lives through diabetes education.⁴ Dietitians can use this checklist to help diabetes patients avoid serious health risks while fasting. In addition, RDs should work with their patients' healthcare teams to ensure they receive the best patient-centered care to avoid short- and long-term complications. Here are the seven self-care behaviors you can use in practice:

- **Healthful eating:** During Ramadan, "Most people eat at least two meals: a predawn meal before fasting and then a sunset meal to break the fast," says Jamillah Hoy-Rosas, MPH, RD, CDE, CDN, a diabetes educator and medical case manager for the Brooklyn-based Stay Well, Enjoy Life program. "Patients should be instructed to avoid binge eating during both of these mealtimes. Large meals with excessive amounts of carbohydrate can lead to postprandial hyperglycemia. Patients should still be following a healthful meal plan, balanced with complex carbohydrates such as whole grains, beans, vegetables, lean protein, and healthful fats."

- **Being active:** Regular physical activity is important for overall fitness, weight management, and blood glucose control. So work with patients to develop an appropriate activity plan that balances food and medication with the activity level.⁴ Too much physical activity, particularly while fasting, can lead to hypoglycemia and dehydration.

- **Monitoring:** Generally, patients should monitor blood glucose two to four times per day, either before meals or two hours after meals and at bedtime. During a fast, instruct patients to monitor blood glucose more frequently. This is especially critical for type 1 and type 2 diabetes patients who require insulin or a sulfonylurea. Tell patients, their families, and others in their spiritual community about the signs, symptoms, and treatment options for hypoglycemia, hyperglycemia, and ketoacidosis.

- **Taking medication:** All patients should be informed about each medication they're taking, including its mechanism of action, side effects, efficacy, toxicity, dosage, and appropriate

timing and frequency of administration plus the effect of missed or delayed doses.⁴ Moreover, they'll need to know the dosage they should take during a fast. "Caloric restriction makes a person with type 2 diabetes very insulin sensitive," says Edelman, who tells his patients who are treated with a sulfonylurea to stop taking the meds temporarily while fasting. But medication adjustments will differ for each patient.

- **Problem solving:** Because of the risk of hypoglycemia, hyperglycemia, and other complications,¹ dietitians should counsel patients on what to do if any of these occur. For example, patients must understand appropriate blood-glucose action levels and action plans and how and when to use glucose tablets, gels, or injections. Patients should carry unexpired glucagon and instructions on when to call 911. Recommend patients wear a medical alert bracelet and keep emergency contact numbers in an obvious place, such as in their wallet, car, or in their cell phone contact list under ICE (in case of emergency).

- **Reducing risks:** Encourage clients to discuss the fast with their spiritual leaders. Patients may be able to modify the fast in a way that meets their health and spiritual objectives. "Planning is key," Hoy-Rosas says. "A few months before Ramadan, those intending to fast should see their doctor to have their health markers [glycemic control, blood pressure, and lipids] monitored and determine whether it's safe for them to participate."

- **Healthy coping:** Embracing one's faith has been shown to reduce stress. Yet people with diabetes who wish to participate in fasting and prayer may feel conflicted by a lack of harmony and understanding between the medical and spiritual advice they receive. Dietitians should offer support and strive to understand and respect the religious context and perspective of the individual who wants to fast.

Ideally, not only will clients with diabetes be informed about good self-care during a fast, but family members and those within the spiritual community will understand how to support them as well. Sharing educational materials with clients and caretakers may be helpful in bridging the gap between medical advice and their spiritual calling. Ultimately, the healthiest patients are those who can take care of themselves well—body and soul.

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For references, view this article on our website at www.TodaysDietitian.com.

