RAMADAN DIETARY

RECOMMENDATIONS FOR HEALTHY INDIVIDUALS AND PEOPLE LIVING WITH DIABETES

(Guidelines Towards Appropriate Eating During Ramadan)

> A publication of: Institute for Dietetics in Nigeria (IDN)



INSTITUTE FOR DIETETICS IN NIGERIA (IDN)

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I

FOREWORD

The Institute for Dietetics in Nigeria (IDN), as the premier professional body for Nutritionists and Dietitians in Nigeria, is pleased to present this essential booklet on healthy eating during Ramadan. This comprehensive guide provides expert advice on dietary regimes during Ramadan fasting, with special consideration for individuals living with diabetes. The Ramadan fast, which involves abstaining from food from dawn to dusk, can significantly impact blood glucose management, and this publication offers valuable guidance on managing this challenge.

As a professional body of dietitians, we recognize our social and corporate responsibility to provide expert guidance on healthy eating patterns during Ramadan. We hope that this publication will benefit countless fasting Muslims in Nigeria and beyond.

In compiling this publication, we drew on the expertise of experienced dietitians and nutritionists, who incorporated local food examples into the recommended menu plans.

The contributors, representing various regions of the country, ensured that the publication has a national outlook, reflecting the diversity of Nigerian cuisine.

I commend the contributors for their outstanding efforts and recommend this publication to Muslims nationwide as a trusted guide for healthy eating during Ramadan. This booklet will also serve as a valuable resource for dietitians, nutritionists, and healthcare professionals providing nutrition counseling to fasting individuals. Furthermore, it will be a useful learning tool for students of nutrition, dietetics, and related fields.

I wish all fasting Muslims a blessed and peaceful Ramadan.

Ramadan Mubarak!

Tajudeen Olutope Ahmed, Esq., FIDN

National President, IDN 4th March, 2025'

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Introduction

Fasting in Islam is known as **sawm** or **siyam** is a practice of abstaining usually from food, drink, sexual activity and anything which substitutes food and drinks.

During the holy month of Ramadan, sawm is observed between dawn and sunset when the adhan of the magrhrib prayer is called. Ramadan is the ninth month of the lunar calendar and fasting is a requirement for Muslims as it's the fourth of the pillars of Islam. Ramadan is observed by millions of Muslims worldwide as a period of fasting, prayer, and self-discipline (Ibrahim et al., 2020).

While Ramadan fasting is known for profound spiritual significance and some health benefits, it also has substantial physiological effects, particularly for individuals with chronic medical conditions such as diabetes mellitus (DM) (Tootee and Larijan, 2021). Fasting can impact hydration, metabolism, and glycemic control, necessitating careful medical oversight for individuals with diabetes who choose to fast (Ochani et al., 2023).

People with chronic diseases are excluded from fasting in Islam if it poses a risk to their health. However, cultural and religious considerations have a significant impact on people's decisions to fast; as a result, many diabetics put their religious beliefs ahead of their health (Shaikh et al., 2022). Fasting has a significant metabolic influence on diabetics. Blood glucose swings brought on by prolonged fasting can raise the risk of hypoglycemia and hyperglycemia (Tootee and Larijan, 2021).

Religious leaders play a pivotal role in shaping fasting decisions among Muslim people with diabetes. Many individuals with diabetes seek guidance from religious leaders rather than healthcare providers when determining whether to fast (Almansour et al., 2017). The lack of structured collaboration between healthcare professionals and religious leaders contributes to inconsistencies in diabetes management during Ramadan. Studies have demonstrated that when religious leaders support medical guidance, diabetes patients are more likely to seek pre-Ramadan counseling, adhere to dietary recommendations, and make informed decisions about fasting (Bourchareb et al., 2022; Hassanein et al., 2017). Programs integrating Islamic teachings with medical advice have successfully improved patient compliance and reduced the risks associated with fasting (Mohammed and Sharew, 2019).

Despite the availability of international guidelines on managing diabetes during Ramadan, adherence to dietary recommendations remains a major challenge in many developing countries, particularly in Nigeria (Almansour, 2017).

Pre-Dawn meal is called _suhoor' and it is eaten by Muslims daily before starting fasting. It's a significant meal that provides energy for the day ahead and it's very important. It can be eaten between the hours of 4:30am to before adhan of subhi prayer in the morning.

Post sunset meal is called _iftar' and it's eaten by Muslims to break their fast immediately when the sun has set. It's very important because it re-energizes the body and gives strength for the next day.

Prophet Muhammad (PBUH) recommends that Suhoor (predawn meal) should be delayed while Iftar (post sunset meal) should be hastened. This is to reduce the rate of nutrients depletion in the body during the day.

Health Benefits of Fasting

Here are some evidence-based health benefits of fasting:

1. Weight Loss

Fasting can lead to weight loss due to the reduction in overall calorie intake (Harris, L., et al., 2018).

2. Improved Insulin Sensitivity

Fasting has been shown to improve insulin sensitivity, reducing the risk of developing type 2 diabetes (Bhutani et al., 2019).

3. Reduced Inflammation

Fasting has anti-inflammatory effects, which can help reduce the risk of chronic diseases such as heart disease, cancer, and neurodegenerative disorders (Alirezaei et al. 2019).

4. Improved Cardiovascular Health

Fasting has been shown to lower blood pressure, triglycerides, and LDL cholesterol, all of which can contribute to a reduced risk of heart disease (Li et al., 2019).

5. Increased Autophagy

Fasting can stimulate autophagy, a natural process in which the body breaks down and recycles damaged cells and proteins (Raffaghello et al., 2010).

6. Improved Mental Clarity and Focus

Fasting has been shown to improve mental clarity and focus due to the increased production of a protein called brainderived neurotrophic factor (BDNF) (Liu et al. 2019).

7. Reduced Cancer Risk

Fasting has been shown to reduce the risk of certain types of cancer, including breast, prostate, and colon cancer (Hartman et al. 1992).

8. Improved Immune Function

Fasting has been shown to improve immune function by stimulating the production of new white blood cells.

9. Reduced Oxidative Stress

Fasting has been shown to reduce oxidative stress, which can help reduce the risk of chronic diseases such as heart disease, cancer, and neurodegenerative disorders.

10. Increased Human Growth Hormone (HGH) Production

Fasting has been shown to increase production of HGH, which can help improve muscle mass, bone density, and overall health.

Recommended Pre-Dawn Meals (Suhoor)

'Suhoor' is the daily pre-dawn meal taken before the day's fast begins. Suhoor, on the other hand, is almost always a private affair inside homes and tends to be leaner than the _Iftar' dishes. However, in reality, it needs to be a more carefully planned meal. It requires meticulous planning as it happens pre-dawn. The body is relatively well-supplied by energy and nutrients for immediate needs from the previous evening's Iftar, but still has to create a store for the rest of the fasting day.

Below are some dietary recommendations for Suhoor:

- Drink plenty of fluids, choose fluid-rich foods to make sure you are well hydrated for the day ahead.
- Include slow-burning energy sources like complex carbohydrates with a lower glycemic index. These include starchy foods for energy, choosing high fibre or wholegrain varieties where possible as these can help keep you feeling fuller and can aid digestion, helping to prevent constipation. (British Nutrition Foundation, 2025).
- Consume protein-rich foods which are also slow-

releasing.

- Take less salt and sugar to avoid dehydration during the day.
- Consume less fats to avoid being thirsty during the day.
- Take less caffeinated drinks to avoid dehydration.

According to India Times 2024, here are some of the most beneficial foods to be included in a Suhoor meal:

Dates: Dates are a nutritional powerhouse with a relatively lower glycemic index, due to their fibre-rich nature. They are also an excellent source of carbohydrates, proteins, vitamin B6 and minerals including potassium, magnesium, copper, manganese and iron.

Wholegrain foods: Wholegrain foods, as opposed to refined flour-based foods, have a low glycemic index as they release their carbohydrates slowly during digestion and metabolism, making them excellent choices as Suhoor foods.

Examples include: wholegrain cereals, wholegrain rice and wholegrain bread.

Low Glycemic fresh fruits: While fruits are rich in simple carbohydrates, some of them still have a low glycemic index. These include: apples, oranges, papaya, grapes, cherries, pears, plums, strawberries and peaches. These are all excellent choices for Suhoor.

Eggs: Egg is not only one of the richest sources of highquality proteins and several other nutrients, but the egg protein is a medium-release protein, which means it will take around three hours to be fully absorbed, making them an excellent addition to a Suhoor meal.

Milk: While lactose intolerance among a high percentage of the population makes milk a difficult choice for many, for those who can easily digest it, milk is one of the best choices

for Suhoor. This is because casein, the main protein in milk, is one of the slowest releasing proteins, taking over 4 hours to be fully absorbed.

Legumes and Seeds: Most legumes are excellent sources of slow-acting proteins, even though their amino acid profile is not as complete as eggs or milk or whey.

Still legumes like beans, soy etc., should be ideally included in a Suhoor meal as they also have high satiety value, which works against hunger. Seeds, on the other hand, are also excellent sources of beneficial fats like omega-3s.

Recommended post-sunset meals (Iftar)

Post-sunset meals are essential part of the holy month of Ramadan when Muslim fast from dawn to sunset (Ramadanali,2006).

Here are some recommended traditional and nutritious post-sunset meals:

1. Dates and fluids: Prophet Muhammad (PBUH) recommends immediate intake of either fresh dates or water when breaking fast i.e immediately after sunsets. This is in order to provide re-hydration and to supply body with glucose immediately. Other traditional and refreshing ways to break the fast include intake of zobo, tigernut milk, fresh fruit juices and lots of fruits. Eat fruits with high fiber and water like watermelon, apple, cucumber etc.

2. Light meals: pepper-soup, vegetables salad, tapioca, ogi, pap or custard contain enough liquid (water and milk) to keep you hydrated, they also provide the necessary nutrients needed to sustain the fast in order to avoid tiredness.

3. Soup: lentil soup, tomatoes soup, or chicken noodle soup are all popular options.

4. Kebabs and grilled meats: A flavorful and satisfying option.(As-sadiq,2023).

Healthy snacks to be included in the post-sunset meal include:

- **1. Fresh fruits:** Rich in vitamins, minerals and antioxidant.
- **2. Nuts and seeds:** Almonds, cashews, pumpkin seeds and sunflower seeds are all nutritious option.
- 3. Energy balls: made with oats, nuts and dried fruits
- **4. Yogurt and honey:** A soothing and healthy snacks.

<u>Special recommendations for diabetic patients during</u> <u>Ramadan</u>

As part of the multifactorial approach to managing diabetes, more emphasis is on weight management in treatment of Type 2 Diabetes Mellitus (T2DM) through individualized therapeutic interventions.

This includes dietary recommendations that promote healthy food choices and eating behaviors and consider personal preferences to establish sustainable healthy eating habits. Therefore energy deficit via fasting is one of many options that can be explored for long-term weight loss in T2DM (Davies et al., 2022).

Recent research has suggested that fasting can enhance insulin sensitivity and glucose tolerance in individuals who are overweight and at high risk of developing T2DM (Cienfuegos et al., 2022)..

Published research assessing the effect of fasting on Type 1 Diabetes Mellitus (T1DM) has demonstrated positive outcomes, including a reduced need for exogenous insulin (Berger et al., 2021), stabilization of glycemia, a reduction in body weight and body mass index (BMI), and lower total carbohydrate intake (El-Hawary et al., 2016). People with T1DM who fast during Ramadan are at increased risk of developing Diabetic Keto-Acidosis (DKA) or hypoglycemia (Salti et al., 2004), mainly if their diabetes is poorly controlled before Ramadan (Al-Arouj et al., 2010).

Recommendations

Type 1

People with Type 1 Diabetes Mellitus should always perform fasting under medical supervision. Even though Fasting can significantly reduce the rates of hypoglycemia in T1DM (Moser et al., 2020). In addition to improving glycemia during Ramadan Fasting (El-Hawary et al, 2016), studies indicate that Ramadan Fasting reduces BMI and improves the quality of life in T1DM (Berger et al., 2021).

As long as insulin dosages are monitored and reduced to meet with the period of meal intake and level of activity undertaken at the time Ramadan Fasting does not pose significant safety risk to the person.

Type 2

Based on the existing literature, fasting does not appear to pose significant safety risks for people with T2DM if medication is carefully monitored and adjusted as needed (Uldal et al., 2022)..

Careful monitoring of glycemia during fasting is the most important aspect for patients taking pharmacological agents that can cause hypoglycemia (Munoz et al., 2020).

According to International Diabetes Federation (IDF), for diabetic patients observing Ramadan, it's essential to focus on nutrient-dense foods that won't cause a spike in blood sugar levels. Here are some recommended food types:

- **Dates:** Rich in fiber, potassium, and antioxidants, dates are a traditional food for breaking the fast. However, consume them in moderation due to their natural sugars.¹
- **Complex Carbohydrates:** Whole grains like brown rice, Pearl millet, sorghum, hungry rice and Oat provide sustained energy and fiber.
- Lean Protein Sources: Include lean meats like chicken, fish, and turkey, as well as legumes, lentils, and low-fat dairy products.
- **Healthy Fats:** Nuts, seeds, avocados, and olive oil are rich in healthy fats that support heart health.
- **Low-Glycemic Fruits and Vegetables:** Focus on nonstarchy vegetables like leafy greens, broccoli, and bell peppers, as well as low-glycemic fruits like berries, citrus fruits, and apples.
- **Hydrating Foods:** Include foods with high water content, such as watermelon, cucumbers, and celery, to help with hydration.
- **Nuts:** These can be used as in between meals snacks

Sample one week Diabetic Menu (About 2,000Kcal/day) for the Ramadan Fasting

Sunday

Dawn Boiled yam - 3 thin slices + Garden egg sauce Liberal water intake Dusk I teacup of cooked pap 2 level teacup of Boiled rice and beans +2 cod fish stew Liberal water intake

Monday

Dawn 2 level teacup of plantain amala + ewedu + 2fish Liberal water intake Dusk I level teacup of cooked pap 2 level teacup of stewed beans + 1wrapp of eko Liberal water intake

Tuesday

Dawn 1½ teacup of blended cabbage amala/ tuwo/eba + mixed okro + 2pcs of fish Liberal water intake Dusk I slice of pawpaw100g/ #100 worth 2 medium sizes of boiled plantain + fish stew vegetable sauce Liberal water intake

Wednesday

Dawn 2 level teacup of yam flour amala/ pounded yam/ semo vegetable soup + fish Liberal water intake Dusk 1teacup of juiced pawpaw + pineapple 2½ teacup of oat + 1 wrap of moimoi

Thursday

Dawn 5 slices of bread + fish sauce +Lipton tea NO sugar + creamer milk Sliced 1 bulb of avocado pear (100g) Liberal water intake Dusk Diced 100g of pineapple 2 level teacup of Amala +Eforiro + 2fish. Liberal water intake

Friday

Dawn 3 thin slice of Boiled yam + tomatoes and onions egg sauce Liberal water intake Dusk Diced 1finger of carrot + shredded cabbage 2 level teacup of ofada rice + efo riro+ 1beef Liberal water intake

Saturday

Dawn 1½ teacup of stewed beans with ½medium size of boiled plantain + tomato/onions fish sauce Liberal water intake Dusk 1finger of banana 3 teacup of hot ogi + 1wrapp of moi-moi Liberal water intake.

Note:

Pls consult your dietitian to make any necessary adjustment to the above sample menu based on your personal preferences. Your dietitian may give you other options apart from the ones mentioned here.

Conclusion

Institute for Dietetics in Nigeria (IDN) is pleased to present this comprehensive guide to healthy eating during the holy month of Ramadan. The aim of this publication is to provide Muslims with a balanced and nutritious meal plan that meets their energy needs while promoting overall health and wellbeing.

We recognize that Ramadan is a time of spiritual reflection, self-discipline, and community bonding. By providing these recommendations, we hope to support Muslims in maintaining their physical health while they focus on their spiritual growth.

The guide was designed to be flexible and adaptable to individual needs. We encourage Muslims to consult with healthcare professionals and registered dietitians to personalize their meal plans.

As we fast and feast during Ramadan, let us remember the importance of nourishing our bodies and souls. May this guideline serve as a valuable resource in promoting healthy habits and spiritual growth during this blessed month.

Recommendations

1. Share this guideline on all your social media handles pls.

2. Print and distribute this meal guide to mosques, Islamic centers, and community organizations.

3. Collaborate with healthcare professionals and registered dietitians to provide personalized nutrition counseling.

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Final Thoughts

As we conclude our work on this meal guide, we are reminded of the Prophet Muhammad's (PBUH) teachings on the importance of maintaining good health and well-being. May this guide serve as a valuable resource in promoting healthy habits and spiritual growth during Ramadan and beyond.

Special Announcement:

As we are quite aware that nutrition should always be personalized, these recommendations may not work for everyone, but we are quite sure it will be useful to many. Therefore, we are advising anyone that faces problem when following this guideline to immediately discontinue following it and consult a Dietitian for necessary modification(s) and advice.

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