

# Indian Diabetes

EDUCATOR JOURNAL



**Theme of the Month**

**Traveling and Diabetes**

To keep Members of Diabetes Care team abreast about  
DSME/DSMS - (Diabetes Self management Education/Support) Concepts

2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025

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diabetes care team abreast with  
DSME and DSMS concepts

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## FOREWORD

Research Society for the Study of Diabetes in India (RSSDI) founded by Prof. MMS Ahuja in the year 1972 is the biggest scientific association of healthcare professionals involved in promoting diabetes education and research in India. RSSDI is happy to collaborate with USV to support their endeavour to make India the 'Diabetes care capital of the world'. Through this collaboration, RSSDI would like to strengthen the cadre of diabetes educators by empowering them with recent updates in diabetes management helping bridge the gap between the physician and the patient. Today, the rule of 50% is prevailing in terms of awareness, detection, treatment and control in T2DM. Our aspiration is to achieve 90-90-90-90 i.e. 90% of people with diabetes should be made aware, 90% should be detected, 90% of those detected should be treated, and 90% of those treated should reach their goals.

Indian Diabetes Educator Journal (IDEJ) is the first of its kind in India, and the longest running monthly diabetes educator journal since April 2015 and continues its endeavour to spread awareness, knowledge and enable healthcare teams to manage individuals with diabetes and empower them for self-care. RSSDI IDEJ will continue to keep the members of diabetes care team abreast with concepts of Diabetes Self-Management Education/Support (DSME/S) with a reach of 44000 doctors and diabetes educators digitally.

This December edition of IDEJ highlights the theme "Traveling and Diabetes." Holiday travel brings excitement but also challenges for people with diabetes, such as irregular meals, time zone changes, altered activity, and medication schedules. This issue equips diabetes educators with practical guidance to help patients plan ahead, carry essential supplies, and maintain glucose control while on the move. With simple, evidence-based tips for safe travel, the focus remains on preparation, awareness, and balance, ensuring every journey is healthy, enjoyable, and worry-free.

We sincerely thank our contributors for making this issue delightful reading for our readers. We dedicate this journal to all the healthcare professionals who are working relentlessly towards making "India-The Diabetes Care Capital of the World."

Sincere Regards,

Dr. Sanjay Agarwal  
RSSDI Secretary

Disclaimer: This Journal provides news, opinions, information and tips for effective counselling of people with diabetes. This Journal intends to empower your clinic support staffs for basic counselling of people with diabetes. This journal has been made in good faith with the literature available on this subject. The views and opinions expressed in this journal of selected sections are solely those of the original contributors. Every effort is made to ensure the accuracy of information but Hansa Medcell or USV Private Limited will not be held responsible for any inadvertent error(s). Professional are requested to use and apply their own professional judgement, experience and training and should not rely solely on the information contained in this publication before prescribing any diet, exercise and medication.  
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To get featured in the Indian Diabetes Educator Journal you can connect with us on the below mail ID for further communication: [info@nurturehealthsolutions.com](mailto:info@nurturehealthsolutions.com)

# RSSDI Indian Diabetes

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# Cover Story: Travel and Diabetes: Staying in Control on the Move



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Travel brings excitement and new experiences, but for individuals living with diabetes, it also introduces specific challenges. Changes in meal timing, activity, climate, and time zones can influence glycemic control. With thoughtful preparation and monitoring, travel can remain both safe and enjoyable. Before traveling, one must do pre-travel

preparation. It should include the following:

- **Medical review:** A pre-travel consultation 3–4 weeks before departure is advisable to review glycemic control, comorbidities, vaccinations, and fitness to travel.
- **Documentation:** A medical letter listing the diagnosis, medications (with generic names and dosages), and devices such as insulin pumps or continuous glucose monitors (CGMs) should be carried.
- **Supplies:** It is recommended to pack twice the expected quantity of insulin, oral medications, strips, sensors, and snacks, distributed between carry-on and checked luggage.
- **Destination check:** Factors such as time zone differences, food types, altitude, and local climate should be considered.
- **Insurance and emergency kit:** Comprehensive travel insurance and an emergency diabetes kit—including glucose tablets, ketone strips, and a glucagon injection if prescribed—are essential.

## During travel

- Glucose monitoring:** Frequent glucose monitoring is essential during travel, as irregular meals, increased activity, and stress may alter blood glucose levels. Monitoring before meals, at bedtime, and during long journeys helps detect early fluctuations.
- Meals and snacks:** Healthy snacks such as nuts, fruit, roasted makhana, roasted chana, or glucose powder should be handy at all times. Insulin or oral hypoglycemic agents should be administered in relation to actual meal times, not home schedules. Adequate hydration must be maintained, particularly during flights or in hot climates.
- Physical activity and foot care:** Increased walking or exploration during travel can raise the risk of hypoglycemia, especially in those on insulin therapy. Comfortable, well-fitting footwear should be worn, and feet should be inspected daily to prevent unnoticed injuries.



- d) Medication and device safety:** Insulin and monitoring devices must be carried in hand luggage and protected from temperature extremes. Insulin should be stored at 2–8 °C in cooling pouches and kept away from freezing or overheating. Pumps and CGM devices should be used according to manufacturer guidance, as changes in temperature or cabin pressure can affect function.
- e) Long flights:** Prolonged immobility during flights increases the risk of venous thrombosis. Regular ambulation, ankle exercises, and adequate hydration are recommended.

**Adjusting medications across time zones:** Time-zone changes may necessitate insulin schedule adjustments, depending on the direction and duration of travel. For journeys crossing fewer than five time zones, minimal adjustment is required apart from aligning doses to local time. For longer travel, basal insulin modifications should be made in consultation with the treating physician.

**Medication management during overseas travel:** Traveling north and south needs no dose adjustment; however, adjustments are needed in drug dosages and timings if more than three time zones are crossed during eastward or westward travel, as traveling east shortens the day, while traveling west lengthens it, causing risk of hypo- and hyperglycemia, respectively.

**Adjustment of OADA (oral anti-diabetic agents):** Non-sulfonylurea OADAs—continue unadjusted. Sulfonylureas: For westward travel, continue unadjusted but hold if meals are missed. For eastward travel: Immediate-release—skip the evening dose on the day of travel; extended-release—hold on the day of travel.



**Adjustment of insulin:** Use of insulin pens and a basal bolus regimen should be encouraged.

- 1. Bolus insulin:** Analogs are preferred over regular insulin. Continue unadjusted and take insulin before each meal. The interval between two doses should be at least 3–4 hours for analog and 6 hours for regular insulin.
- 2. Basal insulin:** Change needed while crossing >3 time zones. Eastward travel requires a reduction in basal insulin dose. Westward travel needs either extending or adding additional coverage of insulin.

**Practical considerations:** Alarms or phone reminders can help maintain medication and monitoring schedules. The time settings of insulin pumps or CGM devices should be updated to local time upon arrival. For those using premixed insulin, switching temporarily to a basal-bolus regimen before long-haul travel may offer greater flexibility.

## Conclusion

With proper preparation, individuals with diabetes can travel confidently and safely. Effective planning, frequent monitoring, and careful adjustment of medications allow stable glycemic control across time zones and environments. The guiding principles remain—**Plan, Protect, and Prevent**—ensuring that diabetes never limits the freedom to explore the world.

## Key points

- **Plan ahead:** Pre-travel medical consultation and adequate packing are essential.
- **Monitor frequently:** Travel disrupts daily routines; regular monitoring helps prevent extremes.
- **Adjust doses appropriately:** Reduce basal insulin for eastward travel and increase slightly for westward travel, under medical guidance.
- **Stay hydrated and active:** Movement and hydration reduce the risk of hyperglycemia and thrombosis.
- **Be prepared for illness:** Carry medical contact information and supplies for emergencies.



### Resources:

1. Bauddh, Nitesh and Sharda, Meenaxi. Chapter-86 Managing Diabetes during Travel and Sick Days. RSSDI Diabetes Update–2019. Doi: 10.5005/jp/books/18273\_87
2. Tips for Traveling With Diabetes, Centre for Disease Control and Prevention. Available at: <https://www.cdc.gov/diabetes/about/tips-for-traveling-with-diabetes.html>

# Navigating Airport Security with Diabetes Devices (Continuous Glucose Monitors and Insulin Pumps)



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For optimal blood glucose control and to prevent complications of diabetes, accurate glucose monitoring and insulin titration are essential. Continuous advancements in telemedicine, insulin administration, and glucose monitoring have produced a digital diabetes ecosystem full of interconnected tools and technology that have been

demonstrated to enhance positive clinical results and lessen the burden of diabetes.

Traveling with diabetes devices like a continuous glucose monitor (CGM) and an insulin pump requires extra preparation when navigating airport security. Diabetes treatment should not only prevent medical consequences but also address the challenges that people with diabetes (PWD) may have in their everyday lives. Due to the rapid rise in the prevalence of diabetes and the growing popularity of air travel, it is projected that PWDs travel as frequently as those without diabetes.

PWDs using insulin pumps and/or CGM systems should be advised to contact the airline before their travel date to understand any specific regulations regarding the use of these devices during the flight. Certain airlines may have policies related to wireless signal transmission or battery-powered medical devices on board, and obtaining prior clarification helps avoid delays or conflicts during boarding.



At airport security checkpoints, electromagnetic interactions between insulin pumps and airport safety systems are a potential concern. Pumps and CGMs contain sensitive circuitry and wireless communication modules that could, theoretically, be affected by strong electromagnetic fields. However, studies and manufacturer data indicate that standard walk-through metal detectors emit low-frequency electromagnetic fields that do not harm or interfere with insulin pump or CGM operation. Therefore, patients may safely pass through these detectors with their devices in place.

On the other hand, X-ray scanners, such as those used for carry-on baggage or checked luggage, emit ionizing radiation, which can interfere with or permanently damage electronic and sensing components of these medical devices. Thus, insulin pumps, CGM transmitters, and sensors should never be placed in X-ray bins or allowed to pass through baggage screening machines. Instead, individuals should request a manual inspection of the device and accompanying medical supplies.



When approaching full-body scanners, which may operate using millimeter-wave or backscatter X-ray technology, precautions are warranted. While millimeter-wave scanners (non-ionizing) are generally considered safe, backscatter scanners emit low-dose X-rays that could pose a risk to device function. For this reason, patients should inform airport security staff in advance that they are wearing a medical device and request an alternative screening method, such as a pat-down or hand-held metal detector screening.



Effective communication with security officers is key to minimizing complications. Individuals should carry a physician's letter or medical device identification card provided by the manufacturer, which explains the need to keep the insulin pump and CGM attached and not expose them to X-rays. Warning security personnel before screening not only ensures individual safety but also helps prevent unnecessary device removal or damage. In summary, while metal detectors are safe for these devices, X-ray and backscatter scanners must be avoided, and alternative screening procedures should always be requested when uncertainty exists.

## Key points

- **Plan ahead:** Contact the airline before travel to understand regulations for insulin pumps and CGMs.
- **Stay informed:** Metal detectors are safe, but X-ray and backscatter scanners should be avoided.
- **Communicate clearly:** Inform airport security about wearing medical devices and request a manual inspection if needed.
- **Be prepared:** Carry a physician's letter or device ID card to ensure smooth and safe screening.

## Resources:

1. Thomas A, and Heinemann L. External Physical and Technical Influences on Medical Devices for Diabetes Therapy. *Journal of diabetes science and technology*, 2023 17(3), 826–832. <https://doi.org/10.1177/19322968221080160>
2. Uğurlu, M. Flight and diabetes. *Anatolian Journal of Cardiology*, 2021, 25(Suppl 1), 20–23. <https://doi.org/10.5152/AnatolJCardiol.2021.S108>
3. Tellez S, Hornung L, Smith E, *et al.* Real-World Accuracy of a Continuous Glucose Monitoring System after Radiologic Exposure. *Pediatr Diabetes*. 2024;2024:2210509. doi:10.1155/2024/2210509
4. Cornish A and Chase HP. Navigating airport security with an insulin pump and/or sensor. *Diabetes Technology and Therapeutics*, 2012, 14(11), 984–985. <https://doi.org/10.1089/dia.2012.0220>

# Pre-travel Evaluation and Checklist



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Travel has become an essential part of modern life, whether for work, leisure, pilgrimage, or sports. In the past, diabetes limited the participation of individuals in certain activities, but today, modern treatments allow them to succeed in nearly every aspect of life, making travel no longer restricted. A timely pre-trip evaluation, education, and

counseling form a systematic approach in addressing issues. It reduces stigma, prevents complications, and prepares this vulnerable group for challenges.

**Pre-travel evaluation:** Even with well-controlled diabetes, travelers can face obstacles due to changes in food, activity, sleep, and climate. If poorly managed, it can greatly increase the medical and administrative costs. Individuals who intend to travel should ideally take an appointment with their doctor at least three months in advance. This allows the healthcare professionals to evaluate the individual's current status of diabetes control and provide specific guidance on managing and preventing acute complications. This includes modifications to the medication schedule (if required), dietary changes, resources for appropriate food exchanges in the destinations, carbohydrate counting, glucose monitoring, exercise options, early detection of complications (hypoglycemia and hyperglycemia), and ways to manage these situations. Here's a pre-travel checklist that can be followed:



## Pre-travel examination checklist

- Detailed history and physical assessment
- Relevant laboratory studies and immunizations are required for diabetes at the destination
- Strategies for the management of blood pressure, blood glucose, and cholesterol
- Thorough checks of the feet and eyes
- Diabetic kidney disease and atherosclerotic cardiovascular disease staging
- Determining travel contraindications and providing travel-related education
- Counseling lifestyle and other matters pertaining to travel
- Providing a translated version of the doctor's letter and prescription in the target language

## Travel checklist and components of a physician's letter

Category	Essentials
Documents	Pre-travel evaluation report, physician letter (with extra copies), prescriptions, medical ID card, health insurance
Destination information	Information about nearby pharmacies and hospitals
Medical supplies	Insulin, medicines, delivery devices, glucometer/CGM, strips, ketostix, lancets, syringes, wipes, batteries, chargers, hypoglycemia kit (glucose tabs/gel, snacks, glucagon), sharps container, cooling wallet/flask
Personal items	Moisturizer, sunglasses, umbrella, weather-suitable clothing
Physician's letter details	Patient ID, doctor's contact info, airport security note, packing double supplies, including allergy and hypoglycemia information

People with diabetes can travel safely today with proper planning. Pre-travel counseling, education, and assessment help prevent complications and ensure confidence during travel. Along with a doctor's letter and prescriptions for airport security, all essential medications and monitoring supplies should be kept in hand luggage. Where available, telemedicine and diabetes technologies can support continuous care. Travelers should also follow international standards for safe disposal of sharp objects and insulin storage.

### Key points

- **Plan ahead:** Schedule a pre-travel diabetes evaluation well in advance of the trip.
- **Be prepared:** Follow a comprehensive checklist covering health, medication, and safety needs.
- **Pack smart:** Keep all essential medicines and monitoring supplies in hand luggage with a doctor's letter.
- **Stay safe:** Use telemedicine support, store insulin properly, and follow safe disposal practices while traveling.



### Resource

1. Rajkumar V. Travel with diabetes: a comprehensive review for clinicians. *Dubai Diabetes Endocrinol J.* 2022;28(4):121–130.

# Travel Diet Management Guide



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## Smart travel, steady sugar: Eating well on the move

Travel brings excitement—and sometimes, unexpected challenges for those managing diabetes. Changes in routine, meal timing, and

unfamiliar foods can unsettle blood glucose control. But with a little foresight and flexibility, you can keep your energy, digestion, and glucose levels steady wherever you go.

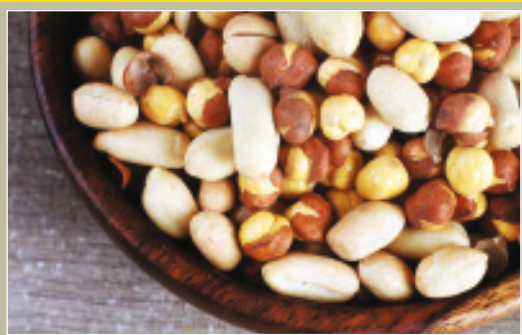
## Know your destination, plan your plate

Before setting out, take a moment to explore your destination's food environment. Many hotels and airlines now share nutritional information online, making it easier to select balanced options ahead of time. Look for restaurants or stores offering fruits, vegetables, whole grains, and lean proteins—ingredients that form the cornerstone of diabetes-friendly meals.

**Why it matters:** Planning ahead prevents last-minute, high-carb or fried food choices that can spike glucose and cause fatigue during travel.



## Pack your power snacks



When options are limited, your snack bag can be your safety net. Choose nutrient-dense, portable items such as roasted chana, unsalted nuts, seed mixes, whole-grain crackers, or protein bars without added sugar.

Stay hydrated with water or low-sugar drinks, and limit caffeine and alcohol—both can worsen dehydration and affect blood glucose levels.

**Why it matters:** Long gaps between meals or sudden hunger often lead to overeating or unhealthy snacking. Smart preparation helps stabilize blood glucose and energy throughout the day.

## Keep portions and timing on track

Jet lag and erratic schedules can confuse the body's hunger hormones, leptin and ghrelin, making you eat more or at odd hours.

Try to eat at consistent intervals and avoid heavy meals late at night. Before long flights, opt for a light meal rich in complex carbs and lean protein—it helps prevent post-meal glucose surges and promotes satiety.

**Why it matters:** Stable meal timing helps your medication, insulin, and metabolism work in sync—reducing both highs and lows in glucose control.

## Safety first: Eat smart, stay healthy

In new environments, food safety is as important as food quality. Stick to freshly cooked foods, hand-peeled fruits, and sealed beverages. Wash your hands before meals and be cautious with street food, raw salads, or unpasteurized dairy in regions with uncertain hygiene standards.

**Why it matters:** Gastrointestinal illness or dehydration can rapidly disturb glucose balance and insulin absorption—especially in hot or humid climates.



## Embrace mindful eating on the move

Travel can disrupt routines, but it also offers a chance to reconnect with your body's cues. Pause before eating, enjoy local flavors in moderation, and listen to signals of fullness.

**Why it matters:** Mindful eating reduces stress, improves digestion, and fosters a sense of control—a key to long-term diabetes management.

## Final word

Healthy travel isn't about strict rules—it's about balance, awareness, and readiness. A few smart choices before and during your journey can help you explore the world with confidence, comfort, and stable blood glucose.

As the American Diabetes Association notes, consistency in nutrition and timing is the best travel companion a person with diabetes can have.

### Resources:

1. American Heart Association. Healthy travel. American Heart Association. <https://www.heart.org/en/healthy-living/healthy-lifestyle/mental-health-and-wellbeing/healthy-travel>. Accessed October 31, 2025.
2. Centers for Disease Control and Prevention. Tips for traveling with diabetes. U.S. Dept of Health & Human Services. May 14, 2024. <https://www.cdc.gov/diabetes/about/tips-for-traveling-with-diabetes.html>. Accessed October 31, 2025.
3. Chang, Richard. The influence of attitudes towards healthy eating on food consumption when travelling. *Current Issues in Tourism*. 2014. 20. 1-22. 10.1080/13683500.2014.890579.
4. Research Society for the Study of Diabetes in India (RSSDI). *Position Statement: Diabetes and travel – 2018*. RSSDI. <https://rssdi.in/newwebsite/pdfdata/rssdiGuidelines/2018/Position%20Statement%20diabetes%20and%20travel%20-%202018.pdf>. Accessed October 31, 2025.
5. Reynolds A, Mitri J. Dietary advice for individuals with diabetes. [Updated 2024 Apr 28]. In: Feingold KR, Ahmed SF, Anawalt B, *et al.*, editors. Endotext [Internet]. South Dartmouth (MA): MDText.com, Inc.; 2000. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK279012/>
6. American Diabetes Association. How to eat healthy. American Diabetes Association. <https://diabetes.org/food-nutrition/eating-healthy>. Accessed October 31, 2025. (diabetes.org)

In uncontrolled T2DM with A1c >8.5%, **Choose 1<sup>st</sup>**

# Rx **UDAPA-Trio**

Dapagliflozin 10 mg + Sitagliptin 100 mg + Metformin 500 mg XR



#### Abridged Prescribing Information

UDAPA-TRIO Forte, UDAPA-TRIO, Dapagliflozin, Sitagliptin & Metformin Hydrochloride Extended Release Tablets

**Composition:** Dapagliflozin 10 mg, Sitagliptin 100 mg & Metformin Hydrochloride Extended Release 1000 mg tablets Dapagliflozin propanediol monohydrate eq. To Dapagliflozin 10 mg Sitagliptin Phosphate Monohydrate IP Eq, Sitagliptin 100 mg Metformin Hydrochloride IP (as Extended Release) 1000 mg Dapagliflozin 10 mg, Sitagliptin 100 mg & Metformin Hydrochloride Extended Release 1000 mg tablets Dapagliflozin propanediol monohydrate eq. To Dapagliflozin 10 mg Sitagliptin Phosphate Monohydrate IP Eq, Sitagliptin 100 mg Metformin Hydrochloride IP (as Extended Release) 500 mg **Indication:** It is indicated as an adjunct to diet and exercise to improve Glycemic Control adults with type 2 diabetes mellitus **Recommended Dosage:** As directed by the physician. **Method of Administration:** Oral **Adverse Reactions:** Most common adverse reactions reported are: Dapagliflozin - Female genital mycotic infections, Nasopharyngitis, Urinary tract infections. Sitagliptin - Upper respiratory tract infection, nasopharyngitis and headache. Metformin - Diarrhea, nausea/vomiting, flatulence, asthenia, indigestion, abdominal discomfort, and headache. **Warnings and Precautions:** Dapagliflozin: Volume depletion; Ketoacidosis in patients with Diabetes Mellitus; Urosepsis and Pyelonephritis; Hypoglycemia; Genital mycotic infections Sitagliptin: General: Sitagliptin should not be used in patients with type 1 diabetes or for the treatment of Diabetic Ketoacidosis. Acute pancreatitis: Hypoglycemia is used in combinations when combined with other anti-hyperglycemic medicinal product; Renal impairment: Hypersensitivity reactions including anaphylaxis, angioedema, and exfoliative skin conditions - Steven johnson syndrome; Bullous pemphigoid Metformin Hydrochloride: Lactic acidosis; In case of dehydration (severe diarrhea or vomiting, fever or reduced fluid intake), metformin should be temporarily discontinued and contact with a healthcare professional is recommended. **Contraindications:** Hypersensitivity to the active substance of Dapagliflozin, Sitagliptin & Metformin or to any of the excipients listed. Any type of acute metabolic acidosis (such as lactic acidosis, diabetic ketoacidosis). Diabetic pre-coma; Severe renal failure (eGFR < 30ml/min); Acute conditions with the potential to alter renal function such as: Dehydration, Severe infection, Shock; Acute or chronic disease which may cause tissue hypoxia such as: Cardiac or respiratory failure. Recent myocardial infarction, Shock, Renal Impairment, Acute intoxication, Alcoholism. **Use in special population:** Pregnant women: Due to lack of human data, drugs should not be used during pregnancy. Lactating women: It should not be used during breastfeeding. Pediatric patients: The safety and efficacy of drugs has not yet been established. No data is available. Geriatric Patients: In patients >65 years, it should be used with caution as age increases. For Additional Information/ful prescribing information, please write to us: USV Private Limited, Arvind Vithal Gandhi Chowk, B.S.D Marg, Govandi, Mumbai - 400088 Last updated on 02/04/2024.



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# UDAPA-S

Dapagliflozin 10 mg + Sitagliptin 100 mg Tablets



Ref: L Ravikumar et al. *Cardiology and Cardiovascular Medicine*. 2023; 7: 141-144. |

## Abridged Prescribing Information

**Composition:** Each Film Coated Tablet Contains: Dapagliflozin Propanediol Monohydrate eq. to Dapagliflozin (10 mg) + Sitagliptin Phosphate Monohydrate IP eq. to Sitagliptin (100 mg). **Indications:** For the treatment of type 2 diabetes mellitus inadequately controlled on Metformin monotherapy. **Recommended Dosage:** As directed by the physician. **Method of Administration:** Oral. **Adverse Reactions:** Fungal genital mycotic infections, nasopharyngitis, and urinary tract infections are most common adverse reactions associated with dapagliflozin. While, upper respiratory tract infection, nasopharyngitis, and headache are most common adverse reactions associated with sitagliptin. **Warnings and Precautions:** **Risk of Volume Depletion in Elderly** - Before initiating Dapagliflozin and Sitagliptin, assess volume status and renal function in the elderly patients with renal impairment or low systolic blood pressure, and in patients on diuretics. Monitor for signs and symptoms during therapy. **Ketoacidosis in Patients with Diabetes Mellitus** - Assess patients who present with signs and symptoms of metabolic acidosis for ketoacidosis regardless of blood glucose level. If suspected, discontinue UDAPA-S, evaluate and treat promptly. Before initiating UDAPA-S, consider risk factors for ketoacidosis. Patients on UDAPA-S may require monitoring and temporary discontinuation of therapy in clinical situations known to predispose to ketoacidosis. **Urinary Tract Infections and Pyelonephritis** - Evaluate for signs and symptoms of urinary tract infections and treat promptly, if indicated. **Hypoglycemia** - Consider a lower dose of insulin or the insulin secretagogue to reduce the risk of hypoglycemia when used in combination with Dapagliflozin and Sitagliptin. **Severe Toxicities of the Potassium** - Serious, life-threatening cases have occurred in patients with diabetes, both females and males. Assess patients presenting with pain or tenderness, erythema, or swelling in the genital or perianal area, along with fever or malaise. If suspected, institute prompt treatment. **Genital Mycotic Infections** - Monitor and treat if indicated. **Contraindications:** Patients with a history of hypersensitivity reaction to the active substance or to any of the excipients. In patients with varying degrees of renal impairment, adjusting the dosage is advised based on the severity of the condition. Prohibited medications include strong CYP2C8 inhibitors/inducers, drugs increasing/decreasing hypoglycemic action, drugs known to cause QT prolongation, or other oral hypoglycemic agents other than study medications.

For Additional Information/Full prescribing information, please write to us:

USV Private Limited, Arvind Vikhal Gandhi Chowk, B.S.D Marg, Govand, Mumbai - 400008  
Updated on 28th March 2024

PV - In case of any adverse events, kindly contact pv@usv.in



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Arvind Vikhal Gandhi Chowk, B.S.D Marg, Station Road, Govandi East, Mumbai -400 008. India.

# The Power of Education on Diabetes Management

## A Doctor's Experience with the MyCare Patient Support Program



### **Dr. Suresh Damodharan**

**MBBS, MRCP, (U.K.),  
CCST (Int-Medicine) (London),  
CCST (Diabetology and Endocrinology )  
(London)**  
Consultant Diabetes and Endocrinology

A 56-year-old woman with type 2 diabetes mellitus was managed by Dr. Suresh Damodharan.

### **Here's what Dr. Suresh Damodharan has to say:**

A 56-year-old woman consulted me for uncontrolled blood glucose levels, consistently around 350–400 mg/dL. Despite being on insulin therapy, her readings remained high and unpredictable. After evaluation, I changed her insulin from a premixed to a basal-bolus regimen for better glucose control and referred her to MyCare Diabetes Educator (MDE) Ms. M. Sudha for counseling.

Ms. Sudha educated her about the new insulin regimen and revised her insulin injection technique. She emphasized the importance of adhering strictly to timely insulin injections in order to achieve the desired blood glucose control. She also explained the need for frequent blood glucose monitoring and advised her to check her levels regularly.

Ms. Sudha conducted a detailed dietary recall and suggested appropriate dietary modifications. She explained portion control, reducing high-carbohydrate intake, and balancing meals by including more fiber and protein. She also encouraged her to incorporate simple exercises, such as walking, into her daily routine to further support blood glucose management.

With Ms. Sudha's continuous support and motivation, she followed the advice diligently. Over the next few months, her blood glucose levels stabilized, and her glycated hemoglobin (HbA1c) improved significantly, leading to improved health and overall well-being.



### **Ms. M. Sudha**

**NDEP and T1DE Certified Diabetes Educator**

### **Here's what Ms. M. Sudha has to say:**

This stands as a powerful example of how timely medical guidance, patient education, and self-discipline can transform diabetes care. When they are guided patiently—taught the 'why' behind each medication, the importance of checking blood glucose levels regularly, and how to make small, sustainable lifestyle changes—they gain both confidence and control. It's not just about lowering numbers, but about helping them feel healthier, more energetic, and in control of their lives again.



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With me, every step of the way



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 \*PWD: People with Diabetes

# Interview of the Month: Expert Answers to Common Patient Medication-related Questions



**Dr. Ami Sanghvi**

**MBBS, D. Diabetology, F. Diabetology**  
Consultant Diabetologist and Director,  
Sanghvi Eye & Diabetes Care Centre,  
Mumbai

Dr. Ami Sanghvi is a highly accomplished Consultant Diabetologist and the Director of Sanghvi Eye & Diabetes Care Centre in Mumbai. With extensive expertise in managing diabetes and related conditions, she has earned accolades for her exceptional contributions to the field. Dr. Sanghvi is a distinguished faculty member, an active contributor to prominent diabetes conferences, and a prolific author, editor, and mentor. Known for her patient-centric approach, she focuses on improving the quality of life for individuals living with diabetes through personalized treatment plans, lifestyle modification guidance, and cutting-edge medical interventions. Her commitment to excellence and compassionate care has earned her the trust and respect of her patients.

## Common Patient Medication-related Questions



### 1. Can I stop taking my diabetes medicine if my blood sugar levels come normal?

It is important to understand that the blood glucose levels are under control because of the diabetes medication. If one stops the medication, the blood glucose levels will start rising. The alternative here is that if one is following a good diet, a good lifestyle, and exercising regularly, one can request his/her doctor to start reducing the dose, provided they adhere to the same diet and exercise. So, one can aim to reduce the medication with a good lifestyle rather than stopping it completely.

In some cases, when they have a high body mass index (BMI), with weight loss, they are able to stop medications if there is a significant weight loss. But this weight loss has to be consistent. With weight regain, the sugars start shooting up again. So, if the weight loss is consistent, one is maintaining a good weight, and if the diabetes is mild, maybe stopping the medication can be considered. However, this is not very commonly seen, and even if the medication is stopped, the individual is advised to check the blood glucose every two to three months so that if the blood sugars are rising, they can immediately consult the treating doctor and start medications again.



## 2. Can I take diabetes medication if I'm also on medicine for blood pressure (BP) or cholesterol?

If you have high BP, cholesterol, and you are diagnosed with diabetes, you have to take all the medications that have been prescribed for diabetes, cholesterol, and BP. They are all a part of metabolic syndrome.

So, if one is on medication for BP and cholesterol, that doesn't mean they have to avoid diabetes medication because controlling blood glucose levels, BP, and cholesterol helps reduce macrovascular complications like heart diseases, the chances of stroke, paralysis, any foot diseases, or gangrene. With these parameters under control, even kidney diseases and retina problems can be kept under control. Individuals are advised to take all medications as prescribed without skipping any medicine.



In practice, we see that people tend to continue BP medicine that they feel is mandatory. Cholesterol medicine, they feel it has to be taken for two to three months and then stop there. Diabetes medicine also, over a period of time, they tend to stop. That is not the way to take the medicines. As diligently as BP medication is taken, cholesterol and diabetes medications should also be taken on time to help prevent complications related to these parameters.

## 3. Should I take my diabetes medicine before or after meals? Does timing matter?

Yes, diabetes medicines have to be taken before meals. Most of the medications are advised before meals. There are certain medications like metformin, sodium-glucose cotransporter 2 (SGLT2) inhibitors, or dipeptidyl peptidase 4 (DPP-4) inhibitors that can be taken after meals. But if one tends to forget the medications that are taken before meals and after meals, it's better to take diabetes medications before meals. The whole idea is that by the time one starts eating, their blood glucose starts rising.

If diabetes medicines have started working, it will help bring the blood sugars under control. Secondly, mostly medicines like sulfonylureas or meglitinides, insulin are advised before meals, and rest can be taken after meals. But what I have seen in my practice is that if we create this confusion that certain medications should be taken before meals and certain after meals, patients do tend to get confused, especially the elderly class of patients.

So, if the patients are on any of these medications, it's better to advise them to take them before meals so that they don't forget to take their dosages or skip medication.



#### **4. Can I drink alcohol while I am on diabetes medications? Are there any food or drink restrictions?**

Alcohol should be consumed in moderation and not regularly or daily. The drink mixed with alcohol should also be a low-sugar one. One must avoid any sweetened drink mixed with alcohol because that will spike one's blood glucose levels.

One common doubt is whether a person taking alcohol should skip their diabetes medication. First, always keep your doctor informed about your alcohol intake. Skipping medicine is never allowed, even if one is taking alcohol. Whenever one takes their meal after alcohol, they must take their medication. They should be advised not to skip their meals. Please follow your doctor's advice for alcohol intake and medications, but do not skip medicines, and do not take alcohol on a regular basis.



#### **5. Do I need so many different medicines? Can't the same medicine be taken more number of times?**

Diabetes is not one problem. There are eight pathophysiological defects, and there are eight pathways that cause hyperglycemia. When we talk about different medications, we have medicines that are designed to address these different pathophysiologic defects. So we cannot take one single medication multiple times a day because that will not address the multiple pathophysiologic defects.

When we combine different types of medicines and give them at different times of the day, it helps us to get not only a better glycemic control since it targets the major pathophysiologic defects, but it also helps in bringing down the blood glucose spikes, helps in bringing down the cholesterol, helps in bringing down the diabetes complications, and lowers glycemic variability. These molecules, which are different from each other, are designed to address the different pathophysiologic defects that cause diabetes, and that's why one cannot take the same medication over, say, two or three times a day or three to four times a day. Instead, if you add on different molecules, different medicines that will help to keep blood glucose under desired control.



# Hot and Cold Climates: How Weather Affects Glucose Control



## Dr. Charusheela Kolhe

MBBS, C. Diab (Mumbai), D. Diab  
Consulting Diabetologist at  
Disha Diabetes Clinic, Virar

In recent years, the frequency of extreme heat events has risen in parallel with global warming. Exposure to high temperatures has been associated with adverse health outcomes, including increased mortality. Individuals with diabetes are particularly susceptible to heat-related stress due to underlying physiological challenges such as impaired

thermoregulation and a higher risk of dehydration. There has been a growing body of evidence highlighting the relationship between ambient temperature and health outcomes in diabetic populations.

According to the International Diabetes Federation (2025), the global number of adults living with diabetes is projected to rise from the present 589 million adults to 853 million by 2050. With rising heatwave frequency and intensity, the health effects of heat exposure on people with diabetes have become a major public health concern. A deeper understanding of how high temperatures affect diabetes is crucial to developing effective adaptation and mitigation strategies.

## Challenges of a warm climate for individuals with diabetes

A warm climate increases dehydration risk in people with type 2 diabetes mellitus (T2DM), raising blood glucose and triggering osmotic diuresis that worsens dehydration and glycemic control. The risk is greater in those using diuretics or sodium-glucose cotransporter 2 (SGLT2) inhibitors.

In tropical regions, people with diabetes have reduced heat dissipation and impaired thermoregulation, worsened by comorbidities like cardiovascular disease and neuropathy. This increases their risk of heat-related illness, metabolic instability, and dehydration-induced kidney injury. To reduce these risks, individuals should stay well hydrated, limit caffeine and alcohol, prevent infections, and practice proper foot care by wearing suitable footwear and avoiding walking barefoot.

Extreme heat increases hospitalizations and deaths in people with diabetes, mainly from cardiac events. Prevention includes education, hydration, glucose monitoring, and timely therapy adjustments.

Physical activity during hot weather may exacerbate dehydration. Hence, individuals with diabetes should allow time for acclimatization before exercising and schedule workouts during cooler parts of the day—early morning or late evening—to minimize the risk of heat exhaustion and metabolic imbalance. Sunburn can contribute to inflammation and increased insulin resistance. Wearing light-colored, loose-fitting, and breathable clothing can enhance comfort and aid in body heat dissipation.

High temperatures can impair diabetes devices. Insulin, glucose meters, and continuous glucose monitors (CGMs) should be protected from heat and sunlight. Warm conditions can increase insulin absorption and cause hypoglycemia if doses aren't adjusted. CGM sensors need strong adhesive patches to manage sweating and should be shielded from heat for accurate readings.



## Challenges of a cool climate for individuals with diabetes

Research indicates that glycosylated hemoglobin (HbA1c) levels tend to rise during colder months, though the precise mechanisms remain uncertain. Possible contributors include reduced physical activity, heightened insulin resistance, and elevated glucagon secretion.

Cold exposure can impair diabetes devices and insulin effectiveness. Freezing damages insulin's structure, while vasoconstriction reduces absorption and may cause finger-prick readings to underestimate blood glucose.

People with diabetes, especially those with neuropathy or vascular disease, are more prone to frostbite and should keep their extremities warm.

Both heat and cold increase cardiovascular risk, requiring awareness and proper monitoring when traveling to places with extreme climatic conditions.



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# A Guide to Foot Care While Traveling with Diabetes



## Dr. Vinay Dhanpal

MD, DM (Endocrinology)

Consultant Endocrinologist, Sunrise Super  
Speciality Hospital, Nizamabad

People with diabetes must pay special attention to foot care during travel and daily life, as neglecting it can lead to serious complications. Traveling often involves extended periods of walking, whether for business trips, vacations, or leisure activities like trekking and sightseeing, making a proper foot care routine essential for safe and comfortable travel.

- **Foot assessment before travel:** Foot Assessment is mandatory for all people with diabetes who are planning travel. Feet should be checked for any pre-existing wounds, cuts, blisters, burns, deformities, neuropathy, any infections, and changes in skin coloration, if any.
- **Choose comfortable and well-fitting footwear:** All footwear must be purchased 2–3 weeks before travel, alternating between 2–3 pairs of footwear to avoid the risk of calluses and blisters.

Footwear/shoes must have insoles that distribute body weight evenly as well as prevent undue pressure at bony prominences, which may cause injuries. Shoes must also have under soles that prevent sharp objects from penetrating inside the shoes and may cause injuries. Choosing shoes with Velcro-fitted straps can accommodate swelling and provide comfort.

- **Choosing comfortable socks:** Socks made from soft, absorbent material with loose elastic should be chosen to keep the skin dry and prevent fungal or bacterial infections. Tight elastic can restrict circulation, which is often already compromised in the lower extremities of people with diabetes.
- **Packing a footcare kit:** This may include clean absorbent towels, anti-bacterial cream, mild soap, and an additional pair of socks.



## During travel

- **Checking feet daily:** Feet must be checked daily for any cuts, wounds, blisters, swelling, or burns.
- **Keeping feet clean and dry:** Feet must be kept clean and dry, especially between toes.
- **Moisturize the skin daily,** avoiding the area between the toes.
- **Cold climate:** Choose shoes and socks that are insulated, which offer protection from cold weather.
- **Hot climate: Walking barefoot must be avoided,** especially on uneven grounds, on hot beaches, during ocean walks, in places of worship, and on pavements, as it increases the risk of cuts and wounds from sharp objects, broken glass pieces, burns that may be caused by hot surfaces, and hot sand.
- **Walking barefoot must be avoided** in all climates, during travel, and in general for people with diabetes.
- **Seeking medical help:** Any wound, cut, or blister that hasn't healed within 24–48 hours, and if any numbness, swelling, discharge, or discoloration of the skin is observed.
- **During long flights and road trips:** Stretching feet, getting up and moving after an hour helps circulation. Avoid tight socks and shoes that hamper circulation.



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## Travel Mode: Specific Considerations in Diabetes Care



### Dr. Dishank Patel

MD, FDIAB, FISH, Fellow (Diabetes India)

Consulting Diabetologist, Metabolic Physician  
and Founder, Glucowell Diabetes Centre,  
Vadodara

Travel brings the joy of discovering new places, meeting different people, and stepping away from daily routines. But for those managing diabetes, it also introduces challenges that require extra care. Changes in meal timings, physical activity, and access to medications can affect blood glucose levels. Each mode of travel by road, sea, or air

impacts the body in different ways. With thoughtful planning, these challenges can be managed smoothly.

Let's understand the key considerations in diabetes care across different modes of travel.

**1. Road travel:** Road travel often allows flexible timing and route control. But long hours behind the wheel can be risky if blood glucose levels drop unexpectedly. Low glucose levels can slow reaction time and cloud thinking, two things no one wants while driving.

#### **Helpful habits**

- Check blood glucose levels before starting the drive and during breaks.
- Keep snacks, glucose tablets, and insulin within easy reach.
- Avoid keeping insulin on the car seat, in the glove compartment, or in the car trunk.
- It is a good idea to use a continuous glucose monitor (CGM) that shows real-time readings. Some even connect to car dashboards or phones.
- Take breaks to stretch, hydrate, and check in on how the body feels.
- Carry sufficient supplies of carbohydrate-rich snacks, glucose powder/sugar, water, and test strips. Keep it handy in case of an emergency.
- If you are not the driver but a passenger, then you too must carry all the above-mentioned supplies to have a smooth ride.

For those with a history of low blood sugar without warning signs, consider consulting a doctor before driving long distances, as it can be helpful.



2. **Sea travel:** Cruises and ships are all about relaxation, but they can also throw off daily routines. Buffets, rich carbohydrate meals, and unpredictable schedules may lead to a spike in blood glucose levels. Also, being far from pharmacies or clinics can be a problem; hence, prepare in advance.



### **Smooth sailing strategies**

- Choose balanced meals and watch portion sizes at buffets.
- Stay active, walk the deck, join a dance class, or explore ports of call.
- Pack double the usual supply of medications, test strips, and insulin.
- Wear shoes at all times to protect feet, especially on hot or slippery surfaces.
- Preventive steps against common illnesses on board, such as seasickness, stomach infections, flu, and respiratory issues, are especially important for individuals with diabetes. These conditions tend to have a more pronounced impact on blood glucose control and overall health during sea travel.

Hence, a little planning goes a long way in making sea travel both safe and enjoyable.

3. **Air travel:** Flying can be exciting, but it also brings unique challenges. Changes in time zones, cabin pressure, and meal timing can all affect diabetes management. Flights also limit access to medical help, so being prepared is essential.

### **In-flight essentials**

- Carry all medications, insulin, and supplies in hand luggage, never in checked bags.
- Bring a doctor's note and prescriptions, especially when traveling internationally.
- Adjust insulin doses when crossing multiple time zones, based on medical advice.
- Wait to take insulin until meals are served to avoid lows from delays.
- Move around during the flight to reduce the risk of blood clots.
- Be aware that insulin pumps may behave differently due to cabin pressure changes. Some travelers disconnect during takeoff and landing. A backup plan, like carrying insulin pens or syringes, can be a lifesaver if devices malfunction mid-flight.



## **Conclusion**

Traveling with diabetes doesn't have to be stressful. With the right tools, a bit of planning, and an understanding of how different travel modes affect the body, it's possible to explore the world with confidence. Whether on the road, at sea, or in the air, staying one step ahead helps keep the journey smooth and the memories sweet.

### **Resource:**

Rajkumar V. Travel with Diabetes: A Comprehensive Review for Clinicians. *Dubai Diabetes and Endocrinology Journal*. 2022;28(4):121–130. doi:10.1159/000527144

# Diabetes Educator's Toolkit: Skill of the Month: Problem-solving



**Dr. Mudassir Ansari**

**MBBS, MD (General Medicine),  
CPCDM (RSSDI)**

Consultant Diabetologist and Physician,  
True Health Clinic, Mumbai

Problem-solving is a fundamental diabetes educator's skill, which is linked to psychological well-being and improved glycemic control. Diabetes self-management requires individuals with diabetes to make decisions on a daily basis in changing circumstances. Structured interventions related to problem-solving help individuals develop

strategies to adapt to changing scenarios, identify barriers, evaluate outcomes, and gain confidence and self-efficacy. Problem-solving is a necessary diabetes educator skill, empowering individuals with diabetes to navigate through real-life challenges and sustain self-care behavior over time.

## Importance of problem-solving in diabetes education

People with diabetes face challenges on a daily basis while making decisions related to blood glucose monitoring, taking insulin, diet, adherence to medications, and physical activity, as well as special case scenarios like stress, illness, travel, and indulging in any travel-related activity. Diabetes educators help individuals to apply reasoning while analyzing patterns and making context-appropriate decisions.

Individuals receiving structured problem-solving training show better decision-making, better glycemic results, and better coping skills than those who receive standard education.

## Structured problem-solving framework in diabetes education

**Identifying problems:** Individuals with diabetes learn about identifying problems – like skipping insulin dosages, glucose levels rising after consuming restaurant meals, irregular meals, skipping meals, lack of motivation, and so on.

**Generating solutions:** Health care providers and individuals with diabetes brainstorm various possible solutions/strategies addressing their issues while putting emphasis on feasibility and creativity, while listing options.

**Decision making:** Health care providers and individuals with diabetes collaborate to make decisions while evaluating the pros and cons of each decision.



**Implementation:** Health care providers encourage individuals to take planned actions towards their decisions while following a specific timeframe.

**Evaluation:** Individuals with diabetes and the health care providers review what strategies worked and what didn't, and then repeat the cycle and build self-efficacy over time.

Problem-solving is the foundation of effective diabetes self-management education. Diabetes educators can help individuals with diabetes transform daily challenges into learning experiences through structured approaches, collaboration, and empathy. This diabetes educator skill ensures long-term efficacy and improved glycemic control by bridging the gap between practical implementation and theoretical knowledge.

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# Frequently Asked Questions on Traveling and Diabetes



## Dr. Sujan R. Mudadevannanavar

MBBS, MD, DM

Consultant Endocrinologist,  
Sahyadri Narayana Hospital, Shivamogga

1. My 13-year-old daughter has type 1 diabetes. Her school has planned a trip, but we're worried about how she'll manage. What precautions should we take to keep her safe?

**Ans.** She can surely go on the trip with proper planning and diabetes care.

### What you and the school should do beforehand

- Have a meeting with the school, trip leader, and diabetes nurse to discuss her testing, insulin, and snack needs.
- Update her individual healthcare plan (IHP) with details on meals, activities, and overnight stay during the trip.
- At least two staff members should know how to handle her blood glucose levels in case of high or low, and assist with testing or insulin injections.

### What to ensure

- She carries her diabetes kit — glucometer/continuous glucose monitor (CGM), strips, insulin, hypo kit, snacks, and water. Keep extra supplies.
- She's allowed to test, inject, or eat whenever needed, especially with extra activity.
- There's a clear night plan for testing or insulin, with someone available to help.

With proper planning, she'll be safe and enjoy the trip like everyone else. Prepare a checklist for her and the school staff to check before leaving the hotel daily.



2. I have type 2 diabetes and travel frequently for work. How can I manage my blood glucose with irregular meals, flights, and hotel stays?

**Ans.** With good management and a few precautions, you can travel for work confidently while keeping your diabetes under control. Always carry your glucometer and check your blood glucose levels 2–3 times a day, especially if meals or activity change. Keep your medicines, hypo kit, doctor’s prescription, and healthy snacks handy for emergencies. Since travel can disrupt meal timings, ask your doctor how to adjust your medication if you miss a meal — for example, when skipping breakfast due to an early flight.



At hotels, make smart food choices. Start meals with clear soup or stir-fried vegetables, followed by protein like paneer, egg, or grilled chicken to control hunger and prevent post-meal glucose spike. Choose lightly cooked dishes over fried or creamy ones. At breakfast, skip heavy carbohydrate options (puris, parathas, etc) and opt for fruit with nuts and curd/eggs to keep glucose steady. Stay active during your trip — walk, stretch, or use stairs whenever possible. Keep yourself hydrated and carry healthy snacks like roasted makhana, chana, or unsalted peanuts for mid-meal hunger. With these simple habits, you can travel stress-free and keep your diabetes well-managed.

3. I was diagnosed with type 1 diabetes at the age of 9, recently got married, and am going to Malaysia for my honeymoon. How can I enjoy local food while keeping my blood glucose stable?

**Ans.** Congratulations on your wedding! With a little planning, you can enjoy your Malaysian honeymoon and local food while keeping your blood glucose in check. Follow the healthy plate rule — fill half a plate with vegetables/soup, one-quarter with beans, tofu, egg/chicken/fish, and one-quarter with rice or noodles to keep meals balanced and glucose steady.



Here are some healthy ways to enjoy Malaysian dishes

- **Nasi Lemak:** Add cucumber, boiled egg, and grilled chicken; keep rice portions small.
  - **Nasi Dagang with baked fish curry:** A good choice—enjoy the fish, add some vegetables, and limit the rice.
  - **Roti Jala with egg frittata and curry masala:** Take smaller portions and include salad or vegetables.
  - **Wonton Noodles with vegetable soup and grilled chicken:** A balanced, wholesome option.
- **Laksa with vegetables and grilled chicken or fish:** Enjoy the broth and protein, but go light on noodles.

Check your blood glucose 2–3 times a day, as new foods and activities may affect it. Before leaving, talk to your doctor about adjusting insulin if meal timings change or you’re more active. Always carry your glucometer, insulin, hypo kit with sugar or fruit juice, and quick snacks like nuts or roasted chana. Stay hydrated, stay active, and enjoy your honeymoon while keeping your glucose in check!

# Superfood: Chia Seeds

Chia seeds (*Salvia hispanica L.*) have become popular today for their nutritional composition. They have been cultivated as a crop since 3500 BC and are a plant native to Mexico. They are an excellent source of healthy fats like omega-3, fiber, minerals like calcium, magnesium, phosphorus, and potassium. Nutritional value (per 15g):



Energy	Protein	Carbs	Fat	Fiber	Omega-3 fats	Potassium	Calcium
73 kcal	2.4 g	6.3 g	4.6 g	5.1 g	2.6 mg	61 mg	95 mg

## Healthy benefits of chia seeds in diabetes

- Diabetes can lead to increased glycation and lipid oxidation, leading to reactive oxygen species formation. Chia seeds help to reduce oxidative stress because of their antioxidant properties.
- Due to its fiber content, it supports blood glucose management, lowers high cholesterol levels, provides a feeling of fullness, and helps avoid unhealthy snacking, aiding in weight management.
- Supports blood pressure management due to the presence of potassium, fiber, and omega-3 fats.
- Contains bioactive compounds that have antimicrobial properties.

## How to consume

- By soaking them in water and adding lemon for a refreshing drink.
- Adding them to smoothies, yogurt, or fruit bowls.
- Mixing them with herbal infusions for a cooling, antioxidant-rich beverage.
- They can be easily carried and incorporated while traveling.

About **20 grams of soaked chia seeds taken twice daily** have been shown to help maintain glucose control, digestion, and overall well-being. It is advisable to consult a healthcare professional for individual recommendations.

## Resources:

1. Fateh HL, Ahmed DH, Najafabadi MS, Moludi J. The impact of chia seeds on diabetes, blood pressure, lipid profile, and obesity indicators: Systematic review and meta-regression analysis of 14 randomized controlled trials. *Prostaglandins Other Lipid Mediat.* 2024;175:106907. doi:10.1016/j.prostaglandins.2024.106907
2. Many JN, Sarasvathi V. Analysis of chia seed—physiochemical and proximate analysis. *Res J Recent Sci.* 2016;227: 2502.

## Role Play

*Ms. ABC, a 55-year-old female with type 2 diabetes mellitus for the past 5 years, has her sugars under control and is taking medications and basal insulin. She plans to undertake a work-related trip from India to the USA for two weeks. She needs guidance on how to manage her diet, insulin, and other aspects during the trip.*

**Ms. ABC:** Hello, doctor! I'll be taking a business trip to the USA next month, and since I'm on basal insulin, I'm worried about managing my sugar levels and meal patterns. Also, if you could acquaint me with other aspects of travel care, it would be helpful.

**Diabetes educator:** Sure. I understand your concerns. Traveling across time zones can affect meal patterns and insulin timings. When is your flight?

**Ms. ABC:** I will be traveling on 21<sup>st</sup> December from Delhi to New York, about 15 hours long.

**Diabetes educator:** Alright. Since your journey is towards the west, the days will be longer. Lantus is long-acting insulin, so you are required to take it at the same time daily as per your new time zone. Discuss with your doctor prior to your travel date to know when to take insulin, as he will suggest adjusting the dosage to match the U.S. time zone.

**Ms. ABC:** Understood. How should I carry insulin during the flight, and should any insulin care during travel be kept in mind?

**Diabetes educator:** Carry insulin in your hand luggage and not check-in baggage, as insulin is sensitive to heat and can be damaged by extreme temperatures. A travel-friendly cooling case, along with a doctor's prescription and a note for carrying diabetes supplies, is a must for airport security checks.

**Ms. ABC:** Sure. I'm worried, what if I experience low blood sugar levels during the trip?

**Diabetes educator:** Well, this can happen due to increased physical activity during travel. Discuss with your doctor beforehand how to adjust the dosage of insulin. Always carry glucose tablets/gels/powder/fruit juice with you. If you feel uneasy and dizzy, check your glucose immediately and treat the low levels.

**Ms. ABC:** Most importantly, please provide guidance on how to manage healthy meal options in a different country.

**Diabetes educator:** Of course! In countries like the USA, you'll find a variety of options in meals that provide the right balance of nutrients, such as complex carbohydrates, protein, and fiber, in required amounts. Choose cereals that are high in fiber (whole wheat sourdough bread, Ezekiel bread, i.e., sprouted grain bread), whole-grain tortillas, brown rice, quinoa, and steel-cut oats. In protein sources, opt for lentils, beans, edamame, tofu, unsweetened Greek yoghurt, and tempeh, and in non-veg (skinless chicken or turkey), fish (salmon, sardines, tuna) in a grilled, baked, or roasted form, and eggs. Aim for a healthy plate by filling half your plate with non-starchy vegetables, one-fourth with lean protein, and one-fourth with whole grains and cereals.

**Ms. ABC:** Okay, that is very informative. Anything else is required before traveling?

**Diabetes educator:** Speak to your doctor for the necessary vaccinations required before your travel. Consult your doctor well in advance so you can get all the important things done.

**Ms. ABC:** Thank you for your help.

**Diabetes educator:** You're welcome. Have a happy and safe journey.





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## Abridged Prescribing Information

**Active Ingredients:** Metformin hydrochloride (as sustained release) and glimepiride tablets **Indication:** For the management of patients with type 2 diabetes mellitus when diet, exercise and single agent (glimepiride or metformin alone) do not result in adequate glycaemic control. **Dosage and Administration:** The recommended dose is one tablet daily during breakfast or the first main meal. Each tablet contains a fixed dose of glimepiride and Metformin Hydrochloride. The highest recommended dose per day should be 8 mg of glimepiride and 2000mg of metformin. Due to prolonged release formulation, the tablet must be swallowed whole and not crushed or chewed. **Adverse Reactions:** For Glimpepride: hypoglycaemia may occur, which may sometimes be prolonged. Occasionally, gastrointestinal (GI) symptoms such as nausea, vomiting, sensations of pressure or fullness in the epigastrium, abdominal pain and diarrhea may occur. Hepatitis, elevation of liver enzymes, cholestasis and jaundice may occur; allergic reactions or pseudo allergic reactions may occur occasionally. For Metformin: GI symptoms such as nausea, vomiting, diarrhea, abdominal pain, and loss of appetite are common during initiation of therapy and may resolve spontaneously in most cases. Metallic taste, mild erythema, decrease in Vit B12 absorption, very rarely lactic acidosis, Hemolytic anemia, Reduction of thyrotropin level in patients with hypothyroidism, Hypomagnesemia in the context of diarrhea, Encephalopathy, Photosensitivity, hepatobiliary disorders. **Warnings and Precautions:** For Glimpepride: Patient should be advised to report promptly exceptional stress situations (e.g., trauma, surgery, febrile infections), blood glucose regulation may deteriorate, and a temporary change to insulin may be necessary to maintain good metabolic control. Metformin Hydrochloride may lead to Lactic acidosis; in such cases metformin should be temporarily discontinued and contact with a healthcare professional is recommended. Sulfonylureas have an increased risk of hypoglycaemia. Long-term treatment with metformin may lead to peripheral neuropathy because of decrease in vitamin B12 serum levels. Monitoring of the vitamin B12 level is recommended. Overweight patients should continue their energy-restricted diet, usual laboratory tests for diabetes monitoring should be performed regularly. **Contraindications:** Hypersensitivity to the active substance of glimepiride & Metformin or to any of the excipients listed. Any type of acute metabolic acidosis (such as lactic acidosis, diabetic ketoacidosis, diabetic pre-coma). Severe renal failure (GFR < 30ml/min). In pregnant women. In lactating women. Acute conditions with the potential to alter renal function (dehydration, severe infection, shock, intravascular administration of iodinated contrast agents); acute or chronic disease which may cause tissue hypoxia (cardiac or respiratory failure, recent myocardial infarction, shock); hepatic insufficiency; acute alcohol intoxication; alcoholism. **Use in a special population:** Pregnant Women: Due to a lack of human data, drugs should not be used during pregnancy. Lactating Women: It should not be used during breastfeeding. Pediatric Patients: The safety and efficacy of drugs has not yet been established. Renal impairment: A GFR should be assessed before initiation of treatment with metformin containing products and at least annually thereafter. In patients at increased risk of further progression of renal impairment and in the elderly, renal function should be assessed more frequently, e.g. every 3-6 months.

**Additional information is available on request.**

Last updated: March 13, 2023

\*In case of any adverse events, kindly contact: pv@usv.in

For the use of registered medical practitioner, hospital or laboratory.\*



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