



## Self-Care And Home Management of Diabetes Mellitus in India: Challenges and Opportunities.

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### Abstract

Diabetes mellitus is a significant public health concern in India, with its prevalence growing due to urbanization, sedentary lifestyles, and dietary shifts. Effective self-care and home management are essential for glycemic control, reducing complications, and enhancing quality of life among individuals with diabetes. This article explores the current state of self-care practices among diabetic individuals in India, highlights challenges, and provides recommendations for improvement.

### INTRODUCTION

India is often referred to as the diabetes capital of the world, with over 74 million people living with the condition as of 2021. The dual burden of communicable and non-communicable diseases, along with disparities in healthcare access, makes diabetes management in India complex. Self-care practices, encompassing diet, physical activity, medication adherence, and monitoring blood glucose levels, play a pivotal role in controlling diabetes and preventing complications.

### SELF-CARE PRACTICES IN DIABETES MANAGEMENT

#### 1. Dietary Modifications

- **Traditional vs. Modern Diets:** Indian diets are diverse, often high in carbohydrates. Transitioning to balanced meals with adequate protein, fiber, and controlled portions of carbohydrates is vital for glycemic control.
- **Challenges:** Cultural and socio-economic factors, such as reliance on rice or wheat as staples, and the cost of healthier food alternatives, hinder adherence.

#### 2. Physical Activity

- Regular exercise is essential, yet urbanization and time constraints have reduced physical activity levels. Yoga and walking are popular, culturally acceptable forms of exercise in India.

#### 3. Medication Adherence

- Insulin therapy and oral hypo-glycemic agents are common treatments. However, misconceptions, fear of side effects, and irregular follow-ups contribute to poor adherence.

#### 4. Monitoring Blood Glucose

- Regular monitoring is critical for managing diabetes, but access to affordable glucometers and test strips is a barrier in rural areas.

### CHALLENGES IN SELF-CARE AMONG DIABETIC INDIVIDUALS IN INDIA

#### 1. Health Literacy

- Limited awareness of diabetes and its complications among the general population impedes effective management.

#### 2. Socio-Economic Disparities

- Poverty, lack of health insurance, and out-of-pocket expenditures restrict access to resources for self-care.

#### 3. Cultural Beliefs and Stigma

- Misconceptions about insulin dependency and alternative remedies delay appropriate treatment.

#### 4. Healthcare System Limitations

- Insufficient integration of diabetes education into primary care and a shortage of trained diabetes educators.



## STRATEGIES TO IMPROVE SELF-CARE AND HOME MANAGEMENT

### 1. Community-Based Interventions

- Utilizing community health workers to provide education and support for self-care practices.

### 2. Digital Health Solutions

- Mobile apps and telemedicine can bridge the gap in diabetes management, especially in remote areas.

### 3. Affordable Access to Resources

- Subsidizing glucometers, test strips, and essential medications for economically disadvantaged populations.

### 4. Culturally Tailored Education

- Promoting awareness through culturally relevant educational materials and local languages.

### 5. Policy and Advocacy

- Strengthening policies for universal healthcare coverage and integrating diabetes care into national health programs.

## PREVENTION AND HOMECARE MANAGEMENT OF DIABETES MELLITUS

Managing and preventing diabetes mellitus involves lifestyle changes, medication adherence, and continuous monitoring. Here's a comprehensive guide:

### 1. Prevention of Diabetes Mellitus

Prevention strategies differ based on the type of diabetes:

#### Type 1 Diabetes Mellitus

- **No proven prevention** exists as it is an autoimmune condition.
- Focus on early detection in high-risk individuals (family history, genetic predisposition).

#### Type 2 Diabetes Mellitus

This type can often be delayed or prevented with lifestyle modifications:

##### • Healthy Diet

- Emphasize whole grains, vegetables, fruits, lean proteins, and healthy fats.
- Limit refined carbohydrates, sugary beverages, and trans fats.

##### • Regular Physical Activity

- Aim for at least **150 minutes of moderate aerobic exercise per week** (e.g., brisk walking, swimming).
- Incorporate strength training at least **twice a week**.

##### • Weight Management

- Achieve and maintain a healthy body weight (even a 5-10% reduction in body weight significantly lowers diabetes risk).

##### • Stress Reduction

- Practice mindfulness, yoga, or relaxation techniques.

##### • Regular Health Checks

- Monitor blood glucose levels and perform routine HbA1c tests for early detection.

## Gestational Diabetes Mellitus (GDM)

- Optimize pre-pregnancy weight and maintain healthy habits during pregnancy.
- Engage in glucose monitoring and dietary counselling during prenatal care.

### 2. Homecare Management for Diabetes Mellitus

Effective homecare is critical for long-term control and preventing complications.

#### Dietary Management

- Follow a **diabetes-friendly meal plan** tailored by a dietitian:
- Use the **plate method** (half plate vegetables, one-quarter lean protein, one-quarter whole grains).
- Monitor portion sizes to avoid overeating.
- Consider **carbohydrate counting** to maintain stable blood glucose levels.



## Physical Activity

- Maintain a regular exercise schedule, ensuring activities are diabetes-safe.
- Monitor blood sugar before and after exercise to prevent hypoglycemia.

## Blood Sugar Monitoring

- Check glucose levels as advised by healthcare providers.
- Keep a log to identify trends and share with your healthcare team.

## Medication Adherence

- Take prescribed insulin or oral medications at the correct time and dose.
- Never skip medication, even if feeling well.

## Foot Care

- Inspect feet daily for cuts, sores, redness, or swelling.
- Keep feet clean and dry; wear well-fitting shoes.
- See a podiatrist for regular foot exams.

## Hydration and Sleep

- Stay well-hydrated with water or unsweetened beverages.
- Ensure **7-8 hours of sleep per night**, as poor sleep can affect blood sugar control.

## Stress Management

- Chronic stress can elevate blood sugar; engage in relaxation practices.

## Preventing Hypoglycemia and Hyperglycemia

- Recognize symptoms of low (e.g., dizziness, sweating) and high (e.g., excessive thirst, frequent urination) blood sugar.
- Always carry fast-acting glucose (e.g., candy, glucose tablets) for emergencies.

## Routine Health Appointments

- Regularly consult with your doctor for HbA1c testing and management updates.
- Schedule eye, dental, and foot exams to prevent complications.

## 3. Tools for Effective Homecare

- **Glucometer** for blood sugar monitoring.
- **Continuous Glucose Monitors (CGM)** for real-time tracking.
- **Mobile Apps** to log food intake, medication, and activity.

## Tips and Takeaways

- Prevention focuses on lifestyle changes, especially for type 2 diabetes.
- Homecare involves consistent monitoring, healthy habits, and adherence to prescribed therapies.
- Proactive management minimizes complications and ensures quality of life.

## CONCLUSION:

The growing prevalence of diabetes in India necessitates a multi-faceted approach to enhance self-care and home management. Community involvement, innovative technology, and policy-level changes are critical to empowering individuals to take control of their health. Collaborative efforts between healthcare providers, government, and the community can help mitigate the burden of diabetes and improve outcomes.

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