

# Diabetes

February 2026

# Digest

## Healthy living with diabetes

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Mass awareness is critical  
in the fight against diabetes

ذیابیطس کے بارے میں مکمل رہنمائی

Vol: 40 No. 2

DIABETIC ASSOCIATION  
OF PAKISTAN





# Diabetes Digest

February 2026

Vol. 40 No. 2

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# DAP MONTHLY HIGHLIGHTS

## Student Awareness Sessions on Type 1 Diabetes

The Diabetic Association of Pakistan (DAP) conducted a series of Student Awareness Sessions at Ninos Brillantes School, FJAYS Academy, Baseerat Academy, and Bright Education Grammar School under the T1D Community Fund Project by Panorama. These sessions aimed to educate students about Type 1 Diabetes, its early signs and symptoms, the importance of timely diagnosis, and the need to support children living with diabetes. Through interactive discussions and educational activities, students were encouraged to adopt healthy habits and develop a better understanding of diabetes, helping to create a more informed and supportive community. (-Amna)



Educating Students on Type 1 Diabetes

## DAP Inaugurates State-of-the-Art Laboratory to Enhance Diagnostic Services

The Diabetic Association of Pakistan (DAP) proudly inaugurated its new Laboratory facility today, with esteemed Council Members in attendance, including the President, Secretary General, Vice Presidents, Joint Secretaries, Treasurer, and other Council Members.

During the ceremony, a live demonstration of laboratory services was conducted, featuring the President's blood test to highlight the facility's operational readiness and commitment to accurate and high-quality diagnostics.

This significant milestone represents a major step forward in strengthening DAP's diagnostic capabilities and advancing patient care. The new laboratory will provide reliable, advanced testing services, supporting timely diagnosis and better health outcomes for people living with diabetes. (-Amna)



New DAP Laboratory Inaugurated for Enhanced Patient Care

## DAP Holds Council Meeting to Discuss Organizational Development and Patient Care

The Diabetic Association of Pakistan (DAP) recently convened a Council Meeting attended by the President, Secretary General, Vice Presidents, Joint Secretaries, Treasurer, Senior Administrator, and other respected Council Members.

The meeting centered on reviewing ongoing initiatives, planning organizational improvements, and discussing strategies to further strengthen patient care services and ensure operational excellence across all DAP programs. (-Amna)



DAP Council Discusses Growth and Excellence

## Cataract Surgeries Restore Vision for Many Patients

Diabetic Association of Pakistan (DAP) carried out cataract surgeries in February for the registered patients. Many patients experienced significant improvement in their vision, bringing relief and happiness to them and their families.

The dedicated medical team ensured that all procedures were performed safely, following high-quality medical standards to provide the best care for every patient.

It is truly encouraging to see patients regain clearer sight and enhance their quality of life. The dates for the next round of cataract surgeries will be announced soon, so that more registered patients can benefit from these essential eye care services.

(-Amna)



Improving Lives Through Cataract Surgery

## SCIENTIFIC ABSTRACTS

### Assessment of Health-Related Quality of Life (HRQOL) Among Diabetes Patients at Different Clinical Setups of Karachi; A Pharmacovigilance Correlational Analysis

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#### ABSTRACT

**Objective:** The study aimed to assess the extent of adverse drug reactions and the causality assessment of probable ADRs occurring due to Antidiabetic drug therapies, along

with the pharmacovigilance system and health-related quality of life of Diabetes patients

**Methodology:** A cohort study was conducted at the different clinical setups of Karachi for the period of 18 months from March 2024- August 2025. ADRs and causality of different oral anti diabetic drugs were calculated on the Naranjo scale and the WHO Causality scale. a total of 1100 prescriptions were collected from the various clinics across the city to make the samples robust. Consent was taken from patients before starting the study in the local language, i.e., Urdu, as well as in English. WHOQOL-BREF. The paired sample tests were applied for the comparison and percentage reduction in HbA1C levels. All the study variables, including baseline and the outcome measures, were analyzed descriptively, for which numbers and percentages were calculated. For the quantitative data, frequencies, percentages, Mean, medians, and standard deviations were calculated for all continuous variables.

**Results:** The mean age of participants was 47.5 years (SD = 8.78), based on grouped data from 1,100 individuals. Age categories ranged from 35 to above 70 years, with the highest representation in the 41–49 age group (41.6%). Male: 54.8% 95% CI: 51.9% – 57.8%, Female: 45.2% 95% CI: 42.2% – 48.1%; Chi-square ( $\chi^2$ ) = 10.21 > 3.84. The result is statistically significant. Nullifying the 50/50 split. Notably, DPP-IV inhibitors and Sulfonylureas exhibited higher frequencies of hypoglycemia and gastric irritation, suggesting class-specific risk profiles. A statistically significant negative correlation with overall quality of life (QoL) scores ( $r = -0.279$ ,  $p = 0.002$ ), supported by high internal consistency (Cronbach's  $\alpha = 0.95$  and  $0.86$ , respectively). Role limitations due to physical problems also demonstrated significance ( $p < 0.001$ ), indicating a substantial impact on QoL.

**Conclusion:** The monitoring of ADRs, and reporting of ADRs is one of the best tools to monitor the medication's events and post-marketing surveillance

**Key words:** ADRs, causality, Diabetes mellitus, HRQOL, Pharmacovigilance, WHOBREEF

### Assessment of Diabetes Distress in People with Type 1 Diabetes Using the Diabetes Distress Scale (DDS): A Cross-Sectional Study

Nazish Fatima, Musarrat Riaz, Sabiha Banu, Madiha Junaid, Zeenat Naper, Muhammad Farhan

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**Background:** Diabetes distress (DD) is a common and significant emotional burden in individuals living with type 1 diabetes (T1D), especially among youth and young adults. It is associated with poor self-care, suboptimal glycemic control, and reduced quality of life. However, DD remains under-recognized and under-addressed in many clinical settings, particularly in low- and middle-income countries.

**Aim:** To assess the prevalence and severity of diabetes distress in individuals with type 1 diabetes using the validated Diabetes Distress Scale (DDS) and to explore its associations with demographic, clinical, and psychosocial variables.

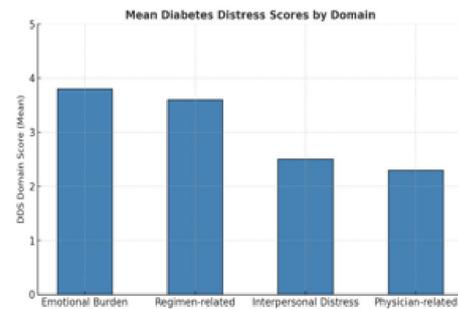
**Methods:** A cross-sectional study was conducted among individuals with T1D attending a tertiary care diabetes center between May 2025 and July 2025. Participants aged 13 years, with a diabetes duration of at least 1 year, were included. Data collected included sociodemographic details, clinical variables (HbA1c, insulin regimen, frequency of self-monitoring), and responses to the DDS questionnaire.

**Results:** A total of 40 participants with type 1 diabetes were included. The mean age was  $19.8 \pm 7.75$  years,

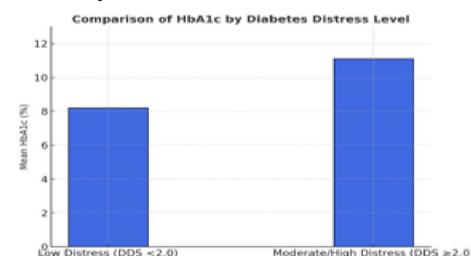
with 62.5% females and a mean diabetes duration of  $7.0 \pm 7.1$  years. The mean HbA1c was  $10.3 \pm 3.21\%$ , indicating poor glycemic control. Mean fasting blood sugar was  $193.4 \pm 96.4$  mg/dl, and mean daily insulin dose was  $42.5 \pm 12.6$  units.

**Table:** Summary of Participant Characteristics

| Variable                            | Mean $\pm$ SD / % |
|-------------------------------------|-------------------|
| Sample Size (n)                     | 40                |
| Mean Age (years)                    | $19.8 \pm 7.75$   |
| Gender (Female %)                   | 62.50%            |
| Diabetes Duration (years)           | $7.0 \pm 7.1$     |
| HbA1c (%)                           | $10.3 \pm 3.21$   |
| Fasting Blood Sugar (mg/dl)         | $193.4 \pm 96.4$  |
| Daily Insulin Dose (units)          | $42.5 \pm 12.6$   |
| DDS-28 Score (Total)                | $3.44 \pm 1.37$   |
| Clinically Significant Distress (%) | >50% (DDS >2.0)   |



The mean total Diabetes Distress Score (DDS-28) was  $3.44 \pm 1.37$ , corresponding to moderate-to-high distress. Overall, more than half of the participants reported clinically significant distress (DDS  $\geq 2.0$ ). The most affected domains were emotional burden and regimen-related distress. Higher distress scores were associated with poorer glycemic control (HbA1c  $\geq 9\%$ ) and longer diabetes duration ( $p < 0.05$ ), while no significant associations were observed with gender, insulin dose, or delivery method.



**Conclusion:** A substantial proportion of individuals with T1D experience moderate to high diabetes distress, with regimen and emotional burden being the most prominent domains. Routine screening for DD using simple tools like DDS should be integrated into clinical practice to enable timely psychological support and improve outcomes in T1D care. This study is ongoing, and the findings presented here represent preliminary results; the final outcomes will be shared upon study completion.

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**Acknowledgements:** We sincerely thank the patients who participated in this study and the staff of the National Institute of Diabetes and Endocrinology, Dow University of Health Sciences, for their cooperation and support in recruitment and data collection.

### Efficacy Of Combination Therapy Vs. Single-Agent Treatments In Mafld Patients: A Prospective Cohort Study

Author: Sana Muhammad Hussain

#### Abstract

**Background:** Metabolic dysfunction-associated fatty liver disease (MAFLD) is characterized by hepatic steatosis with concurrent metabolic dysfunction and insulin resistance. While dapagliflozin and metformin are established treatments for metabolic disorders, comprehensive comparisons of their individual versus combined effects in MAFLD patients remain limited. This study evaluated the differential effects of dapagliflozin-metformin combination therapy compared to monotherapy on glycemic control, lipid profile, and metabolic syndrome components in patients with ultrasound-diagnosed MAFLD.

**Methods:** In this randomized controlled trial, 139 patients with MAFLD (confirmed by ultrasound) were allocated to dapagliflozin 10mg/day (n=43), metformin 20mg/kg/day (n=43), or combination therapy (n=47). Primary outcomes included changes in fasting blood sugar (FBS), HbA1c, triglycerides, HDL cholesterol, waist circumference, metabolic syndrome criteria, and triglyceride-glucose (TyG) index over 12 weeks. Statistical analyses included paired t-tests for within-group changes and repeated measures ANOVA for between-group comparisons.

**Results:** All treatments significantly improved metabolic parameters. Combination therapy achieved the largest FBS reduction (46.04 mg/dL) compared to dapagliflozin (32.72 mg/dL) and metformin (28.14 mg/dL), with significant treatment-by-time interaction ( $F(2,266)=4.31$ ,  $p=0.014$ ). Post-hoc analysis confirmed combination therapy's superiority ( $p < 0.05$  vs both monotherapies). All treatments significantly reduced HbA1c (0.27-0.51%), triglycerides (5.62-10.74 mg/dL), waist circumference (3.28-4.45 cm), metabolic syndrome criteria (0.34-0.45 points), and TyG index (0.10-0.18 units). In the high insulin resistance subgroup (TyG  $\geq 8.8$ ), combination therapy produced significantly greater TyG reduction than either monotherapy ( $p < 0.05$ ). Dapagliflozin showed the most robust HDL increase (3.2 mg/dL). Gender analysis revealed combination therapy's superiority over metformin in males for FBS and TyG reduction, while age stratification showed consistent benefits in patients  $< 60$  years but attenuated HDL improvements in those  $\geq 60$  years.

**Conclusion:** In MAFLD patients, dapagliflozin-metformin combination therapy provides superior glycemic control and insulin resistance improvement compared to either monotherapy, with particularly pronounced benefits in patients with high baseline insulin resistance.

While all treatments effectively improved metabolic parameters, combination therapy consistently demonstrated the greatest improvements, supporting its use as a comprehensive approach to managing MAFLD-associated metabolic dysfunction.

## DIABETES INSIGHTS

### Healthy Living with Diabetes

#### Contents

- Planning what to eat and drink with diabetes
- The role of physical activity in diabetes management
- Maintaining a healthy body weight
- The importance of quitting smoking
- Supporting mental well-being
- Clinical research on healthy living with diabetes

Living a healthy lifestyle is one of the most effective ways to manage diabetes. This includes planning balanced meals, staying physically active, getting enough sleep, and avoiding smoking or tobacco use.

Adopting healthy habits can help keep important health indicators—such as blood pressure, cholesterol, and blood glucose (blood sugar)—within the range recommended by your healthcare provider. Your healthcare provider may be a doctor, nurse practitioner, or physician assistant.

A healthy lifestyle can also help reduce the risk of complications related to diabetes that may affect organs such as the heart, kidneys, eyes, and brain.

Changing daily habits can sometimes feel difficult. However, beginning with small, manageable steps and gradually building healthier routines can lead to significant improvements. Support from family members, friends, community members, and healthcare professionals can also make these changes easier.

### Planning Your Meals and Drinks with Diabetes

Meal planning plays a key role in diabetes management. What you eat, how much you eat, and when you eat all influence your blood sugar levels.

Choosing nutritious foods and beverages can help keep blood glucose, blood pressure, and cholesterol levels under control. For individuals who are overweight or obese, a healthy eating plan combined with regular physical activity, good sleep, and other healthy behaviors can also help achieve and maintain a healthy weight.

In some situations, healthcare professionals may also recommend medications that support weight loss or procedures such as metabolic or bariatric surgery.

### Choosing Nutritious Foods and Drinks

There is no single diet that suits everyone with diabetes, but balanced meal plans often include:

- Dairy products or plant-based dairy alternatives
- Fruits
- Non-starchy vegetables
- Protein-rich foods
- Whole grains

Try to select foods rich in essential nutrients like vitamins, calcium, fiber, and healthy fats. It is also recommended to drink beverages with little or no added sugar, such as water, low-fat milk, unsweetened tea or coffee, or sparkling water.

At the same time, it is helpful to limit:

- Foods high in saturated fat
- Foods containing large amounts of sodium (salt)
- Sugary snacks like cakes and cookies
- Sweetened beverages such as sodas, fruit juices, and flavored drinks

Carbohydrates (carbs) are broken down by the body into glucose, which increases blood sugar levels. Some foods—such as fruits, beans, potatoes, and corn—contain more carbohydrates than others, so it is important to consider carbohydrate intake when planning meals.

Alcohol consumption should also be limited. For people using insulin or certain diabetes medications, alcohol can cause blood sugar to drop too low (hypoglycemia). If alcohol is consumed, it should be taken with food, and blood sugar levels should be monitored afterward. It is best to discuss alcohol intake with your healthcare team.

### Deciding When to Eat

The timing of meals and snacks may depend on several factors, including:

- The diabetes medications you take
- Your physical activity level or work routine
- Other health conditions you may have

Your healthcare provider can advise whether you should eat before, during, or after exercise. Some medications, including insulin or sulfonylureas, may cause blood sugar to fall if meals are skipped or delayed.

### Managing Portion Sizes

Having diabetes does not mean completely giving up the foods you enjoy. However, it may require eating smaller portions or consuming certain foods less frequently.

Two common approaches used to manage portion sizes include carbohydrate counting and the plate method.

### Carbohydrate Counting

Carbohydrate counting involves monitoring the amount of carbohydrates consumed at each meal or snack. While not necessary for everyone, this method can be especially useful for people who take

insulin, as it helps determine the appropriate insulin dose.

### **The Plate Method**

The plate method helps control portion sizes without measuring or counting calories. A standard nine-inch plate is divided into three sections:

•**Half of the plate:** non-starchy vegetables such as leafy greens, carrots, peppers, or green beans

•**One-quarter of the plate:** carbohydrate-rich foods that are high in fiber, such as brown rice, whole grains, fruits, or beans

•**One-quarter of the plate:** protein foods such as fish, lean meat, dairy products, tofu, or other plant-based proteins

People who are not using insulin may manage their diet effectively using this method without counting carbohydrates.

Working with healthcare professionals—such as diabetes educators or registered dietitians—can help create a personalized meal plan that suits your health needs and lifestyle.

### **Before Taking Dietary Supplements**

Currently, there is limited scientific evidence that specific herbs, spices, or dietary supplements can control diabetes. In some cases, healthcare providers may recommend vitamins or minerals if dietary intake is insufficient.

However, supplements should only be taken after consulting a healthcare professional, as some may interact with diabetes medications or cause side effects.

### **The Role of Physical Activity in Diabetes Management**

Regular physical activity is highly beneficial for individuals with diabetes. Research shows that exercise can help:

- Lower blood sugar, blood pressure, and cholesterol levels
- Improve heart health
- Support weight management
- Enhance mood and sleep quality
- Improve balance and memory

Before starting a new exercise, routine or increasing activity levels, it is important to consult your healthcare provider. They can recommend suitable activities based on your health status, medication use, and lifestyle.

### **Types of Physical Activity**

Engaging in different forms of physical activity provides the greatest benefits. Even small increases in activity can improve health.

#### **Aerobic Exercise**

Aerobic activities increase heart rate and breathing. Examples include walking, dancing, swimming, or cycling.

Adults are generally encouraged to aim for at least 150 minutes of moderate-intensity exercise each week, such as 30 minutes on most days. These sessions can be divided into shorter periods throughout the day.

#### **Strength or Resistance Training**

Strength training helps build muscle and strengthen bones. Activities may include lifting weights, performing wall push-ups, or doing arm exercises.

It is recommended to perform resistance exercises at least two times per week.

#### **Balance and Flexibility Exercises**

Exercises that improve balance and flexibility help enhance mobility and reduce the risk of falls. Examples include standing on one leg or stretching exercises.

These activities can be practiced two to three times per week.

Individuals with nerve damage or vision problems related to diabetes should consult their healthcare provider before performing balance-dependent activities.

### **Staying Safe During Physical Activity**

Safety is important while exercising. The following precautions can help prevent complications.

#### **Stay Hydrated**

Drinking water helps prevent dehydration. Sports drinks are usually unnecessary for moderate physical activity because they often contain high amounts of sugar and calories.

#### **Prevent Low Blood Sugar**

Exercise can lower blood sugar levels, sometimes for several hours afterward. Monitoring blood glucose before, during, and after exercise is important, particularly for individuals taking insulin or medications that increase insulin levels.

#### **Avoid High Blood Sugar and Ketoacidosis**

Reducing insulin before exercise may prevent low blood sugar but may also increase the risk of high blood sugar. If the body does not have enough insulin, it begins breaking down fat for energy, producing substances called ketones.

High ketone levels can lead to diabetic ketoacidosis (DKA), a serious medical condition that requires immediate treatment. Healthcare providers can guide patients on monitoring ketone levels and adjusting insulin appropriately.

#### **Protect Your Feet**

Diabetes can damage nerves and blood vessels in the feet, increasing the risk of injury or infection. Wearing comfortable, supportive footwear and inspecting the feet regularly—before and after exercise—can help prevent complications.

## Maintaining a Healthy Weight

Managing body weight is beneficial for people with diabetes. Healthcare professionals can help determine whether weight loss would improve health outcomes.

For adults who are overweight or obese, losing 5–7% of body weight can improve blood sugar control and reduce the risk of other health conditions.

Healthy weight management strategies include:

- Following a balanced eating plan
- Reducing calorie intake
- Engaging in regular physical activity
- Getting 7–8 hours of sleep each night

In some cases, medications or weight-loss programs may be recommended. For individuals who cannot achieve a healthy weight through lifestyle changes and medication, healthcare providers may suggest weight-loss surgery.

## Quitting Smoking

Smoking and diabetes both damage blood vessels and significantly increase the risk of serious health problems such as heart attacks, strokes, kidney disease, nerve damage, eye disease, and limb amputation.

Secondhand smoke can also affect family members and others nearby. If you smoke or use tobacco products, seeking support to quit can greatly improve your overall health.

## Taking Care of Mental Health

Living with diabetes can sometimes cause emotional stress. Individuals may experience feelings of frustration, anxiety, or sadness while managing their condition.

People with chronic illnesses are also at greater risk of developing mental health conditions such as depression or anxiety.

Seeking support from healthcare professionals or mental health specialists can help individuals:

- Reduce stress and emotional distress
- Improve sleep and concentration
- Address challenges related to work, family life, or finances

Healthy sleep patterns are also important. Both insufficient and excessive sleep can affect blood sugar levels. Conditions such as sleep apnea are more common in people with diabetes and may increase the risk of high blood pressure and heart disease.

## Clinical Research on Healthy Living with Diabetes

Clinical trials are research studies that involve volunteers and aim to improve the prevention, detection, and treatment of diseases such as diabetes.

Researchers are currently studying various aspects of healthy living, including:

- How meal timing influences body weight and metabolism
- The impact of limited access to healthy foods on diabetes outcomes
- The effectiveness of low-carbohydrate diets in controlling blood sugar
- Which diabetes medications are most effective for supporting weight loss

Participating in clinical studies helps healthcare professionals develop better treatments and improve care for people with diabetes in the future.

(-Amna Mansoor)

<https://www.niddk.nih.gov/health-information/diabetes/overview/healthy-living-with-diabetes>



Managing Diabetes for a Healthier Life

## MASS AWARENESS IS CRITICAL IN THE FIGHT AGAINST DIABETES

While efforts are being made worldwide to spread awareness about diabetes mellitus (DM), commonly known as diabetes, much more still needs to be done. The prevalence of diabetes remains alarmingly high — and, more concerning, it continues to rise.

Diabetes mellitus is a serious, long-term condition characterized by elevated blood glucose levels. This occurs when the body either does not produce enough insulin, produces no insulin at all, or cannot effectively use the insulin it produces. Common symptoms include excessive thirst, frequent urination, fatigue, constant hunger, sudden weight loss, and blurred vision. In regions with low literacy rates — such as parts of South Asia, including Pakistan — many people remain unaware of diabetes and its potential complications. Raising awareness has become the need of the hour, especially as the incidence of diabetes is increasing even among younger age groups.

A 2022 study conducted in South Asia, in which more than 50% of participants were either illiterate or educated only up to grade VIII, revealed that approximately 20% of individuals did not know even the basic symptoms of diabetes. The study, published on the website of the National Library of Medicine, identified increasing age as a significant risk factor. Individuals aged 60 years and above were found to have a higher risk of diabetes-related complications, even when cardiovascular risk factors were well controlled. A positive family history of diabetes was also identified as a major risk factor. Interestingly, although individuals with a family history of diabetes are generally more knowledgeable about the disease and its impact on various organs, the risk remains significantly high.

Obesity — particularly central obesity — is strongly linked to the onset and progression of Type 2 diabetes. As fat accumulates in the body, insulin sensitivity declines, and beta-cell function becomes impaired. Elevated levels of non-esterified fatty acids (NEFAs), glycerol, hormones, cytokines, and pro-inflammatory chemicals in obese individuals contribute to the development of insulin resistance.

The study also highlighted that ownership of a glucometer was significantly associated with better medication adherence. However, only 38% of patients owned a glucometer and regularly monitored their blood glucose levels. Physicians should strongly encourage diabetic patients to keep a glucometer at home, as this simple device promotes regular monitoring and greater awareness of blood sugar control.

Poor glycemic control and long disease duration are the most significant risk factors for diabetes-related complications. These complications can affect nearly every organ system and are broadly categorized into microvascular and macrovascular complications. Microvascular complications include diabetic nephropathy, neuropathy, and retinopathy. Macrovascular complications include coronary artery disease (CAD), stroke, and peripheral vascular disease (PVD), which can result in non-healing wounds, gangrene, and ultimately amputation. Alarming, the study found that only about 40% of patients were aware of the complications of diabetes, and merely 18% were aware of the symptoms of hypoglycemia, such as fainting, tremors, convulsions, and excessive hunger.

The persistence of myths and the tendency to shift toward alternative, unverified treatments can further worsen outcomes and lead to severe complications. Therefore, there is an urgent need to promote widespread awareness about diabetes among the general population. This can be

achieved through community-based campaigns, collaboration with local media, partnerships with healthcare providers, and the effective use of social media platforms.

Mass awareness is not merely an option — it is a necessity in the fight against diabetes.

(-Dr. Sumair Ishtiaq)

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*Raising Awareness is Key to Combating Diabetes*

## ذیابیطس کے بارے میں مکمل رہنمائی

کیا آپ جانتے ہیں کہ ذیابیطس دنیا بھر میں کروڑوں افراد کو متاثر کرنے والی ایک عام بیماری ہے؟ یہ ایک دائمی بیماری ہے جو اس بات کو متاثر کرتی ہے کہ ہمارا جسم گلوکوز (شوگر) کو کس طرح استعمال کرتا ہے۔ گلوکوز ہمارے جسم کے خلیوں اور بافتوں کے لیے توانائی کا اہم ذریعہ ہے۔ جب جسم اس عمل کو صحیح طریقے سے انجام نہیں دے پاتا تو خون میں شکر کی مقدار بڑھ جاتی ہے۔

ذیابیطس روزمرہ زندگی پر نمایاں اثر ڈال سکتی ہے کیونکہ اس میں بلڈ شوگر کی سطح اور طرز زندگی دونوں کو باقاعدگی سے کنٹرول کرنا ضروری ہوتا ہے۔ اس بیماری کی اقسام، اسباب، علامات، تشخیص اور علاج کے بارے میں آگاہی مریضوں اور ان کے اہل خانہ کے لیے بہت اہم ہے۔ اس مضمون میں ہم ذیابیطس کی مختلف اقسام، اس کی علامات، تشخیصی طریقوں اور علاج کے بارے میں تفصیل سے بات کریں گے۔

### ذیابیطس کیا ہے؟

ذیابیطس ایک طویل المدتی بیماری ہے جس میں خون میں شکر کی مقدار معمول سے زیادہ ہو جاتی ہے۔ یہ اس وقت پیدا ہوتی ہے جب لہلبہ (اینٹیگریا) کافی مقدار میں انسولین پیدا نہیں کرتا یا جسم انسولین کے اثر کو مؤثر طریقے سے استعمال نہیں کر پاتا۔

انسولین ایک ہارمون ہے جو لہلبہ بناتا ہے۔ یہ گلوکوز کو خون سے خلیوں میں منتقل کرنے میں مدد دیتا ہے تاکہ جسم اسے توانائی کے طور پر استعمال کر سکے۔

### ذیابیطس کی اقسام

ذیابیطس کئی مختلف اقسام میں ظاہر ہو سکتی ہے۔ اہم اقسام درج ذیل ہیں:

**ٹائپ 1 ذیابیطس**

یہ ایک خود کار مدافعتی بیماری ہے جس میں جسم کا مدافعتی نظام لہلبہ کے انسولین بنانے والے خلیوں کو تباہ کر دیتا ہے۔ یہ عموماً تیزی سے ظاہر ہوتی ہے اور اس میں وزن میں کمی جیسی علامات سامنے آ سکتی ہیں۔

### ٹائپ 2 ذیابیطس

یہ ذیابیطس کی سب سے عام قسم ہے۔ اس میں جسم انسولین کو مؤثر طریقے سے استعمال نہیں کر پاتا یا لہلبہ مطلوبہ مقدار میں انسولین پیدا نہیں کرتا۔

### حمل کی ذیابیطس

یہ ذیابیطس حمل کے دوران پیدا ہوتی ہے اور اکثر بچے کی پیدائش کے بعد ختم ہو جاتی ہے۔ تاہم بعد کی زندگی میں ٹائپ 2 ذیابیطس ہونے کا خطرہ بڑھ جاتا ہے۔

### ذیابیطس کی علامات

ذیابیطس کی علامات خون میں شوگر کی مقدار اور بیماری کی قسم کے مطابق مختلف ہو سکتی ہیں۔ عام علامات میں شامل ہیں:

بہت زیادہ پیاس لگنا  
بار بار پیشاب آنا  
مسلل تھکاوٹ  
نظر دھندلی ہونا  
بغیر وجہ وزن کم ہونا  
زخموں کا دیر سے ٹھیک ہونا  
کچھ افراد کو ہاتھوں یا پیروں میں جھنجھٹا ہٹ یا سن ہونا بھی محسوس ہو سکتا ہے۔ جلد یا فنگل انفیکشن بھی بار بار ہو سکتے ہیں۔

### حمل کی ذیابیطس

اکثر اس میں واضح علامات نہیں ہوتیں، اس لیے ڈاکٹر عموماً حمل کے 24 سے 28 ہفتوں کے دوران اس کا ٹیسٹ کرتے ہیں۔

### بچوں میں علامات

ٹائپ 1 ذیابیطس والے بچوں میں شدید پیاس، بار بار پیشاب، بھوک میں اضافہ اور تھکاوٹ نظر آ سکتی ہے۔ بعض اوقات رویے میں تبدیلی یا پیٹ میں درد بھی ہو سکتا ہے۔

ٹائپ 2 ذیابیطس میں بچوں کی گردن یا بغلوں کی جلد سیاہ ہو سکتی ہے جسے ایکسٹنڈیڈ سس ٹگریمنز کہا جاتا ہے۔

### ذیابیطس کی تشخیص

ڈاکٹر مختلف خون کے ٹیسٹوں کے ذریعے ذیابیطس یا پری ذیابیطس کی تشخیص کرتے ہیں۔ ان ٹیسٹوں کا مقصد خون میں گلوکوز کی مقدار معلوم کرنا ہوتا ہے۔

عام ٹیسٹوں میں شامل ہیں:

### (FPG) فاسٹنگ پلازما گلوکوز ٹیسٹ

اس ٹیسٹ میں کم از کم 8 گھنٹے کے روزے کے بعد خون میں شوگر کی سطح چیک کی جاتی ہے۔

### ٹیسٹ A1C

یہ ٹیسٹ پچھلے تقریباً تین مہینوں کے دوران اوسط بلڈ شوگر لیول کو ظاہر کرتا ہے۔

### ریجنڈم پلازما گلوکوز ٹیسٹ

جب فوری تشخیص درکار ہو تو کسی بھی وقت خون کا نمونہ لے کر شوگر کی مقدار معلوم کی جاتی ہے۔

### (OGTT) اورل گلوکوز ٹالرنس ٹیسٹ

یہ ٹیسٹ خاص طور پر ٹائپ 2 ذیابیطس، پری ذیابیطس اور حمل کی ذیابیطس کی تشخیص میں مدد دیتا ہے۔

### ذیابیطس کا علاج

ذیابیطس کے علاج میں عموماً طرز زندگی میں تبدیلیاں اور ادویات دونوں شامل ہوتے ہیں۔

### صحت مند غذا

مریضوں کو متوازن غذا اختیار کرنی چاہیے۔ اگرچہ ذیابیطس کے لیے کوئی ایک مخصوص غذا نہیں ہے، لیکن بہتر ہے کہ کھانے کے اوقات باقاعدہ رکھے جائیں

چھوٹے حصوں میں کھانا کھایا جائے

فائبر والی غذائیں زیادہ استعمال کی جائیں

ریفائنڈ آٹا اور زیادہ میٹھے کھانے کم کرنے چاہئیں اور

صحت مند تیل جیسے زیتون یا کینولا آئل استعمال کیے جاسکتے ہیں۔

### جسمانی سرگرمی

باقاعدہ ورزش بلڈ شوگر کو کنٹرول کرنے میں مدد دیتی ہے۔ بالغ افراد کو ہفتے میں کم از کم 150 منٹ معتدل ورزش کرنی چاہیے۔

مزاحمتی ورزش جیسے ویٹ لفٹنگ یا یوگا بھی ہفتے میں دو سے تین بار فائدہ مند ہوتی ہے۔

### ادویات اور انسولین

اگر صرف طرز زندگی میں تبدیلیاں کافی نہ ہوں تو ڈاکٹر شوگر کم کرنے والی ادویات یا انسولین تجویز کر سکتے ہیں۔

### ذیابیطس کے خطرے کے عوامل

کئی عوامل اس بیماری کے خطرے کو بڑھا سکتے ہیں، جیسے

عمر کا بڑھنا

خاندانی تاریخ

موٹاپا

جسمانی سرگرمی کی کمی

ہائی بلڈ پریشر

سگریٹ نوشی

دیگر عوامل میں پری ذیابیطس، فیٹی لیور بیماری یا پولی

شامل ہیں۔ (PCOS) سسٹک اوویری سڈروم

## نتیجہ

ذیابیطس ایک پیچیدہ مگر قابل انتظام بیماری ہے۔ اگر مریض باقاعدگی سے چیک اپ کروائیں، صحت مند طرز زندگی اپنائیں اور ڈاکٹر کی ہدایات پر عمل کریں تو وہ بہتر اور بھرپور زندگی گزار سکتے ہیں۔ جدید تحقیق کے ساتھ نئے علاج اور انتظامی طریقے بھی سامنے آرہے ہیں جو مستقبل میں مریضوں کے لیے مزید سہولت پیدا کریں گے۔

## عمومی سوالات

کیا ذیابیطس مکمل طور پر ٹھیک ہو سکتی ہے؟

فی الحال اس کا مستقل علاج موجود نہیں، تاہم مناسب علاج اور طرز زندگی میں تبدیلی کے ذریعے بیماری کو کافی حد تک کنٹرول کیا جاسکتا ہے۔

ذیابیطس زندگی کو کیسے متاثر کرتی ہے؟

یہ بیماری جسمانی، جذباتی اور سماجی زندگی پر اثر ڈال سکتی ہے اور بعض اوقات روزمرہ سرگرمیوں اور مالی معاملات کو بھی متاثر کرتی ہے۔

ذیابیطس جسم کو کس طرح نقصان پہنچاتی ہے؟

یہ دل، دماغ، آنکھوں، گردوں، اعصاب اور پاؤں سمیت جسم کے کئی حصوں کو متاثر کر سکتی ہے۔

کیا 200 بلڈ شوگر زیادہ ہے؟

یا اس سے زیادہ شوگر لیول کو زیادہ سمجھا جاتا ہے 200 mg/dL اور یہ ذیابیطس کی علامت ہو سکتی ہے۔

بلڈ شوگر کتنی بار چیک کرنی چاہیے؟

یہ اس بات پر منحصر ہے کہ مریض کون سی دوا استعمال کر رہا ہے۔ انسولین لینے والے افراد کو دن میں کئی بار ٹیسٹ کرنا پڑ سکتا ہے۔  
(-Amna Mansoor)



All You Need to Know About Diabetes

## ذیابیطس کی پیچیدگیاں

اگر طویل عرصے تک بلڈ شوگر زیادہ رہے تو کئی سنگین

مسائل پیدا ہو سکتے ہیں، جیسے

آنکھوں کی بیماری (ذیابیطس رٹینوپاتی)

پاؤں کے مسائل اور زخم

اعصابی نقصان (نیوروپتی)

دل کے دورے اور فالج کا خطرہ

گردوں کی بیماری (نیفروپتی)

موسوڑھوں کی بیماری

شدید صورتوں میں جان لیوا پیچیدگیاں جیسے ڈی کے اے

بھی پیدا ہو سکتی ہیں۔ (DKA)

ڈاکٹر سے کب رجوع کریں؟

اگر آپ کو غیر معمولی علامات محسوس ہوں تو فوری طور پر

ڈاکٹر سے مشورہ کریں۔ ذیابیطس کے مسائل کا ابتدائی علاج

زیادہ مؤثر ثابت ہوتا ہے۔

اپنی صحت کی ٹیم کے ساتھ مل کر بیماری کے دوران بلڈ شوگر

کو کنٹرول کرنے کا منصوبہ بنانا بھی فائدہ مند ہوتا ہے۔

## ذیابیطس کے گھریلو یا متبادل طریقے

کچھ لوگ اپنے علاج کے ساتھ متبادل طریقے بھی استعمال

کرتے ہیں، جیسے

بائیو فیلڈ

گانڈیڈا میجر

کردیم جیسے سپلیمنٹس

تناؤ کم کرنے کی تکنیکیں

تاہم ایسے طریقے اختیار کرنے سے پہلے ڈاکٹر سے مشورہ

ضروری ہے۔

## ذیابیطس سے بچاؤ

ٹائپ 2 ذیابیطس سے بچاؤ ممکن ہے، خاص طور پر ان افراد

میں جن میں خطرہ زیادہ ہو۔

## اہم اقدامات

وزن کم کرنا

باقاعدہ ورزش

فابرسے بھرپور غذا

صحت مند چکنائیوں کا استعمال

تحقیقات سے ظاہر ہوا ہے کہ اگر کوئی شخص اپنے جسمانی

فیصد کم کرے تو ذیابیطس کے خطرے میں 7 وزن کا تقریباً

نمایاں کی آسکتی ہے۔

45 سال سے زیادہ عمر کے افراد یا جن میں خطرے کے

عوامل موجود ہوں انہیں باقاعدہ اسکریننگ کرانی چاہیے۔