

UNDERSTANDING DIABETES

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REGENCY MEDICAL

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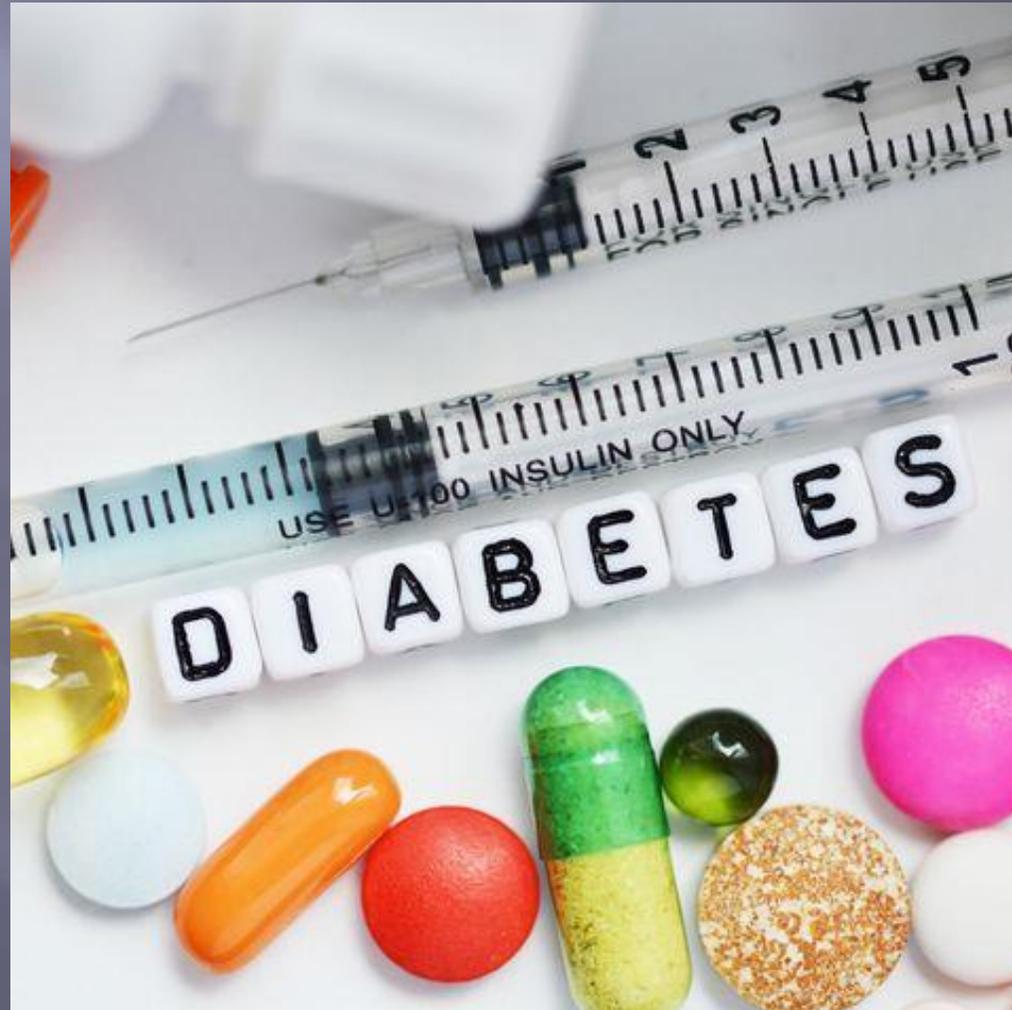
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INTRODUCTION

- ▣ *What is Diabetes?*
- ▣ Diabetes is a chronic medical condition characterised by elevated levels of blood glucose (sugar) due to either inadequate insulin production, resistance to insulin's effects, or both. Insulin is a hormone produced by the pancreas that helps regulate blood sugar levels by facilitating the absorption of glucose into cells for energy use or storage.



DIABETES



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There are several types of diabetes:

1. **Type 1 diabetes:** This type occurs when the immune system attacks and destroys the insulin-producing beta cells in the pancreas. People with type 1 diabetes require lifelong insulin therapy to manage their blood sugar levels.
2. **Type 2 diabetes:** This is the **most common** form of diabetes and typically develops gradually over time. It occurs when the body becomes resistant to the effects of insulin and/or doesn't produce enough insulin to maintain normal glucose levels. Type 2 diabetes is often associated with lifestyle factors such as obesity, lack of physical activity, and poor diet.



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3. Gestational diabetes: This type occurs during pregnancy when the body cannot produce enough insulin to meet the increased needs, leading to high blood sugar levels. Gestational diabetes usually resolves after childbirth, but it increases the risk of developing type 2 diabetes later in life for both the mother and child.
4. Other types: There are also other less common forms of diabetes, such as monogenic diabetes and secondary diabetes, which can result from certain genetic conditions, medications, or other medical conditions.



CAUSES OF TYPE 2 DIABETES

CAUSES OF TYPE 2 DIABETES



HIGH BLOOD PRESSURE



PANCREATIC DISEASES



OBESITY



AGE



GENETIC PREDISPOSITION



STRESS



SEDENTARY LIFESTYLE



UNHEALTHY FOOD



MEDICINE



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- ▣ Symptoms of diabetes can include **increased thirst, frequent urination, unexplained weight loss, fatigue, blurred vision, slow wound healing, and recurrent infections**. If left untreated or poorly managed, diabetes can lead to **serious complications such as heart disease, stroke, kidney failure, nerve damage, and vision loss**.
- ▣ Management of diabetes typically involves **lifestyle modifications (such as dietary changes and regular exercise), medication (such as insulin or oral medications), and monitoring blood sugar levels regularly**. It's essential for individuals with diabetes to work closely with healthcare professionals to develop a personalized treatment plan and to prevent or delay the onset of complications.



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Management of Diabetes

The management of diabetes involves a combination of *lifestyle changes, medication, monitoring blood sugar levels, and regular medical check-ups*. Here are some key components of diabetes management:

- 1. Healthy Eating:** A balanced diet rich in fruits, vegetables, whole grains, lean proteins, and healthy fats can help control blood sugar levels. It's essential to monitor carbohydrate intake and portion sizes, as carbohydrates have the most significant impact on blood sugar levels.
- 2. Regular Physical Activity:** Exercise helps lower blood sugar levels by increasing insulin sensitivity and improving glucose uptake by muscles. Aim for at least 150 minutes of moderate-intensity aerobic activity, such as brisk walking or cycling, per week, along with muscle-strengthening activities on two or more days per week.



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3. Medication: Depending on the type and severity of diabetes, medication may be necessary to help control blood sugar levels. This can include oral medications such as metformin, sulfonylureas, or insulin therapy. Insulin may be administered via injections or insulin pumps, and the dosage may need to be adjusted based on blood sugar levels, dietary changes, and activity level.

4. Monitoring Blood Sugar Levels: Regular monitoring of blood sugar levels is crucial for diabetes management. This can be done at home using a blood glucose meter or continuous glucose monitoring (CGM) system. Keeping track of blood sugar levels helps individuals make informed decisions about medication, diet, and physical activity.



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5. Weight Management: Maintaining a healthy weight or losing weight if overweight can improve insulin sensitivity and blood sugar control. Even modest weight loss can have significant benefits for people with diabetes.

6. Stress Management: Stress can affect blood sugar levels, so it's essential to find healthy ways to manage stress through techniques such as deep breathing, meditation, yoga, or engaging in hobbies and activities that you enjoy.



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7. Regular Medical Check-ups: Routine visits to healthcare providers are essential for monitoring diabetes control, assessing for complications, adjusting treatment plans as needed, and receiving preventive care such as vaccinations and screenings for conditions like eye disease, kidney disease, and heart disease.

8. Education and Support: Education about diabetes management, self-care practices, and lifestyle changes is crucial for individuals with diabetes and their families. Support from healthcare professionals, diabetes educators, support groups, and online communities can also provide valuable encouragement and guidance.

By incorporating these strategies into daily life, individuals with diabetes can effectively manage their conditions, minimise complications, and improve their overall health and well-being.



DIABETES SYMPTOMS

HYPOGLYCEMIA SYMPTOMS



SWEATING



PALLOR



IRRITABILITY



HUNGER



LACK OF COORDINATION



SLEEPINESS

HYPERGLYCEMIA SYMPTOMS



DRY MOUTH



THIRST



WEAKNESS



HEADACHE



BLURRED VISION



FREQUENT URINATION



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Prevention of Diabetes

Preventing diabetes involves adopting healthy lifestyle habits that can help reduce the risk of developing type 2 diabetes, which is the most common form of the disease. Here are some key strategies for diabetes prevention:

1. **Maintain a Healthy Weight:** Excess body weight, particularly around the abdomen, is a significant risk factor for type 2 diabetes. Aim to achieve and maintain a healthy weight through a balanced diet and regular physical activity.



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2. **Healthy Eating:** Focus on a diet rich in fruits, vegetables, whole grains, lean proteins, and healthy fats. Limit intake of processed foods, sugary beverages, and foods high in saturated and trans fats. Monitor portion sizes and aim for balanced meals to help control blood sugar levels and prevent weight gain.

3. **Regular Physical Activity:** Engage in regular physical activity most days of the week. Aim for at least 150 minutes of moderate-intensity aerobic activity, such as brisk walking, cycling, or swimming, per week, along with muscle-strengthening activities on two or more days per week. Regular exercise helps improve insulin sensitivity and blood sugar control.



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4. Maintain a Healthy Lifestyle: Avoid tobacco use and limit alcohol consumption. Smoking and excessive alcohol intake are associated with an increased risk of type 2 diabetes and other chronic health conditions.
5. Manage Stress: Chronic stress can contribute to the development of type 2 diabetes by affecting hormone levels and blood sugar regulation. Practice stress-reducing techniques such as deep breathing, meditation, yoga, or engaging in relaxing activities.



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6. **Get Quality Sleep:** Poor sleep quality and insufficient sleep duration have been linked to an increased risk of type 2 diabetes. Aim for 7-9 hours of quality sleep each night and practice good sleep hygiene habits such as maintaining a consistent sleep schedule and creating a relaxing bedtime routine.
7. **Regular Health Check-ups:** Schedule regular check-ups with your healthcare provider to monitor your overall health and assess your risk of developing diabetes. Discuss any concerns or risk factors you may have and work together to develop a plan for diabetes prevention.



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8. Know Your Risk Factors: Understand your personal risk factors for diabetes, including family history, age, ethnicity, and medical history. Take proactive steps to address modifiable risk factors through lifestyle changes and preventive measures.

By adopting these healthy lifestyle habits and making preventive health a priority, you can significantly reduce your risk of developing type 2 diabetes and improve your overall health and well-being. If you have concerns about your risk of diabetes or need guidance on preventive measures, consult with your healthcare provider for personalized advice and recommendations.



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Diet for Diabetics

A well-balanced diet is essential for managing diabetes effectively. Here are some dietary guidelines for individuals with diabetes:

1. Focus on Carbohydrates: Carbohydrates have the most significant impact on blood sugar levels, so it's essential to monitor carbohydrate intake and choose carbohydrates that have a minimal impact on blood sugar. Opt for complex carbohydrates such as whole grains, fruits, vegetables, and legumes, which are high in fibre and have a slower effect on blood sugar compared to refined carbohydrates like white bread, white rice, and sugary snacks.



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Diet for Diabetics

2. Monitor Portion Sizes: Pay attention to portion sizes to help control blood sugar levels and manage weight. Use measuring cups, spoons, or food scales to accurately portion out foods, and be mindful of serving sizes listed on food labels. Eating smaller, more frequent meals throughout the day can also help stabilize blood sugar levels.
3. Include Lean Proteins: Incorporate lean sources of protein into meals and snacks to help stabilize blood sugar levels and promote satiety. Good options include poultry, fish, tofu, beans, lentils, eggs, and low-fat dairy products. Limit intake of high-fat proteins like fatty cuts of meat and full-fat dairy products.



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Diet for Diabetics

4. Choose Healthy Fats: Include sources of healthy fats in your diet, such as nuts, seeds, avocados, olive oil, and fatty fish like salmon and mackerel. These fats can help improve heart health and provide essential nutrients without significantly affecting blood sugar levels.
5. Limit Added Sugars and Sweets: Minimise consumption of foods and beverages high in added sugars, such as soda, candy, desserts, and sweetened beverages. Opt for sugar-free or low-sugar alternatives when possible and use natural sweeteners like stevia or monk fruit in moderation.



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Diet for Diabetics

6. Emphasise Non-Starchy Vegetables: Non-starchy vegetables are low in carbohydrates and calories but high in fibre, vitamins, and minerals. Include a variety of colourful vegetables in your meals and snacks, such as leafy greens, broccoli, cauliflower, bell peppers, cucumbers, and tomatoes.

7. Stay Hydrated: Drink plenty of water throughout the day to stay hydrated and help regulate blood sugar levels. Limit consumption of sugary beverages and opt for water, herbal tea, or sparkling water instead.



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Diet for Diabetics

8. Be Mindful of Alcohol: If you choose to drink alcohol, do so in moderation and with food to help prevent fluctuations in blood sugar levels. Limit intake to one drink per day for women and up to two drinks per day for men and avoid sugary mixed drinks and excessive consumption.

9. Plan Meals and Snacks: Plan meals and snacks in advance to ensure balanced nutrition and consistent carbohydrate intake throughout the day. Aim for a combination of carbohydrates, proteins, and healthy fats at each meal and snack to help maintain stable blood sugar levels.



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Diet for Diabetics

10. Monitor Blood Sugar Levels: Regularly monitor blood sugar levels as recommended by your healthcare provider and adjust your diet and medication regimen accordingly. Keep track of food intake, physical activity, and blood sugar levels to identify patterns and make informed decisions about your diabetes management plan.

It's essential for individuals with diabetes to work closely with their healthcare provider and a registered dietitian to develop a personalised meal plan that meets their nutritional needs, lifestyle preferences, and health goals. By following a balanced diet, monitoring carbohydrate intake, and making healthy food choices, individuals with diabetes can effectively manage their condition and improve their overall health well-being.

