



Guide to Learning About Diabetes

Explore this guide and learn about the different types of diabetes and how to manage it.

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UNDERSTANDING

Diabetes

(I)

Diabetes is a chronic condition characterized by high blood sugar levels due to either insufficient insulin production, ineffective use of insulin, or both. Understanding the different types of diabetes, recognizing symptoms, and knowing risk factors are crucial for early detection and effective management.

TYPES OF DIABETES:

Type 1 Diabetes

- Autoimmune disease where the body attacks insulin-producing beta cells in the pancreas.
- Typically diagnosed in childhood or adolescence but can occur at any age.
- Requires lifelong insulin therapy for blood sugar control.

Type 2 Diabetes

- Most common form, often associated with lifestyle factors such as obesity and physical inactivity.
- Develops when the body becomes resistant to insulin or doesn't produce enough insulin.
- Can be managed through lifestyle changes, medication, and sometimes insulin therapy.

Gestational Diabetes

- Occurs during pregnancy when hormone changes affect insulin sensitivity.
- Increases the risk of complications for both mother and baby.
- Usually resolves after childbirth but raises the risk of developing type 2 diabetes later in life.

UNDERSTANDING

Diabetes

(II)

Risk Factors for Diabetes:

1. Family History: Having a parent or sibling with diabetes increases the risk.
2. Obesity: Excess body weight, especially around the waist, is a significant risk factor.
3. Sedentary Lifestyle: Lack of physical activity contributes to insulin resistance.
4. Age: Risk increases with age, particularly after 45.
5. Ethnicity: Certain ethnic groups, including African Americans, Hispanics, and Native Americans, are at higher risk.
6. Gestational Diabetes: A history of gestational diabetes raises the risk of type 2 diabetes later in life.
7. High Blood Pressure and High Cholesterol: Both conditions increase the risk of developing diabetes.

SYMPTOMS OF DIABETES

- Frequent urination
- Increased thirst
- Unexplained weight loss
- Fatigue
- Blurred vision
- Slow healing of wounds
- Tingling or numbness in hands or feet

Regular screening, healthy lifestyle choices, and proper management can help prevent complications and improve the quality of life for individuals living with diabetes.

If you experience symptoms or have risk factors, consult a healthcare professional for evaluation and personalized guidance.



UNDERSTANDING *Prediabetes*

Prediabetes is a condition in which blood sugar levels are higher than normal but not yet high enough to be diagnosed as type 2 diabetes. It's a critical juncture where proactive lifestyle changes can prevent or delay the onset of diabetes and its associated complications. Here's what you need to know:

WHAT IS PREDIABETES?

Prediabetes occurs when blood sugar levels are elevated, but not high enough to be classified as diabetes. It's often a precursor to type 2 diabetes, but with intervention, progression can be halted or reversed.

SYMPTOMS OF PREDIABETES:

Prediabetes often has no symptoms. However, some individuals may experience:

- Increased thirst
- Fatigue
- Frequent urination
- Blurred vision
- Slow-healing sores or infections

If you have risk factors for prediabetes or are experiencing symptoms, don't wait. Talk to your healthcare provider about getting tested. Remember, small changes today can lead to significant improvements in your health tomorrow



RISK FACTORS FOR PREDIABETES

- **Weight:** Being overweight or obese significantly increases the risk of prediabetes.
- **Inactivity:** Lack of regular physical activity is a major risk factor.
- **Family History:** Having a family member with diabetes increases your risk.
- **Age:** Prediabetes is more common in individuals over the age of 45.
- **Gestational Diabetes:** Women who had gestational diabetes during pregnancy are at higher risk.
- **Race/Ethnicity:** Certain ethnic groups, such as African Americans, Hispanics, Native Americans, and Asians, are at increased risk.

Diabetes

KNOW THE SIGNS

Understanding the signs and symptoms of diabetes is crucial for early detection and management. These are the common indicators of diabetes that help individuals recognize when to seek medical attention.



Frequent Urination



**Unexplained
Weight Loss**



Increased Thirst



Fatigue



**Slow Wound
Healing**



Blurred Vision



Hungry all the time



**Tingling in Hands
or Feet**



Vaginal Infections

Diabetes

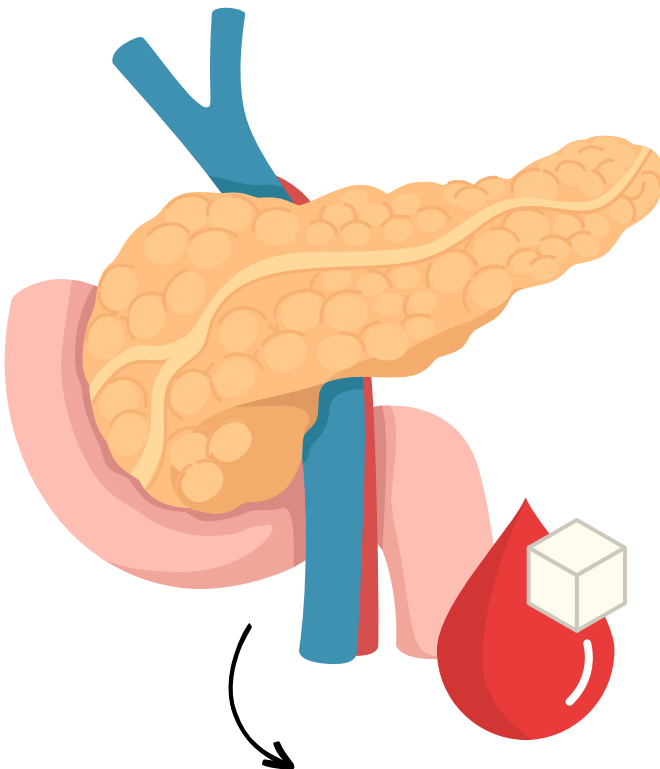
RISK CHECKLIST

- ☐ **Family History:** You have a parent or sibling with diabetes.
- ☐ **Weight:** Your body mass index (BMI) is above 25.
- ☐ **Age:** You are over the age of 45.
- ☐ **Physical Activity:** You engage in less than 150 minutes of moderate-intensity exercise per week.
- ☐ **Ethnicity:** You are of African American, Hispanic/Latino, Native American, Asian American, or Pacific Islander descent.
- ☐ **Gestational Diabetes:** You had diabetes during pregnancy, or you gave birth to a baby weighing over 9 pounds.
- ☐ **High Blood Pressure:** Your blood pressure measurements are consistently above 140/90 mm Hg.
- ☐ **High Cholesterol Levels:** You have been diagnosed with high cholesterol, specifically high levels of low-density lipoprotein (LDL) cholesterol and triglycerides.
- ☐ **Prediabetes:** You have been previously diagnosed with prediabetes.
- ☐ **Smoking:** You smoke cigarettes or use tobacco products.
- ☐ **Sleep Apnea:** You have been diagnosed with sleep apnea.
- ☐ **Stress:** You frequently experience high levels of stress.
- ☐ **Dietary Factors:** You consume a diet high in processed foods, sugary drinks, and unhealthy fats.
- ☐ **Medications:** You are taking medications such as corticosteroids or antipsychotics that may increase your risk of diabetes.

Type 2 Diabetes

WHAT IS TYPE 2 DIABETES

Type 2 diabetes is a metabolic condition characterized by the body's inability to properly regulate blood sugar levels. This is typically due to insulin resistance, where the body's cells don't respond effectively to insulin, or insufficient insulin production by the pancreas. Over time, this can lead to elevated blood sugar levels, potentially causing various health complications if left unmanaged.



Type II diabetes is characterized by impaired insulin secretion by beta cells in the pancreas, insulin resistance of cells throughout the body, and dysregulated glucose production in the liver: all of which cause blood sugar imbalances

HOW TO MANAGE YOUR METABOLIC HEALTH

REDUCE SUGAR AND SWEETENERS

The focus should be on minimizing added sugars and artificial sweeteners, as both can elicit a stressful insulin response.

MAINTAIN BLOOD SUGAR BALANCE

Promote insulin sensitivity through adequate sleep, minimal stress, and balanced meals containing healthy fats, protein, and fiber.

INCORPORATE GENTLE MOVEMENT

Engage in resistance exercises and yoga, which are practical methods for enhancing insulin sensitivity and reducing inflammation.

ADOPT A MEDITERRANEAN-STYLE DIET

Replace inflammatory foods with diverse, colorful, antioxidant-rich plant foods, herbs, spices, whole grains, legumes, nuts, seeds, olives (and olive oil), green tea, and fatty fish.

SUPPORT YOUR MICROBIOME

Boost the growth of beneficial butyrate-producing bacteria species by consuming fiber from various plant foods.

INCORPORATE INTERMITTENT FASTING

Intermittent fasting, under the guidance of a healthcare professional, can be a beneficial strategy for managing type 2 diabetes. This approach involves cycling between periods of eating and fasting, which can help regulate blood sugar levels, improve insulin sensitivity, and support metabolic health.

Type 1 Diabetes

WHAT IS TYPE 1 DIABETES

Type 1 diabetes is an autoimmune condition in which the body's immune system mistakenly attacks and destroys insulin-producing cells in the pancreas. As a result, the body is unable to produce insulin, a hormone necessary for regulating blood sugar levels. Individuals with type 1 diabetes require lifelong insulin therapy to manage their condition effectively.

SUPPORT METABOLIC HEALTH

Balanced Diet: Focus on nutrient-dense foods and manage carbohydrate intake.

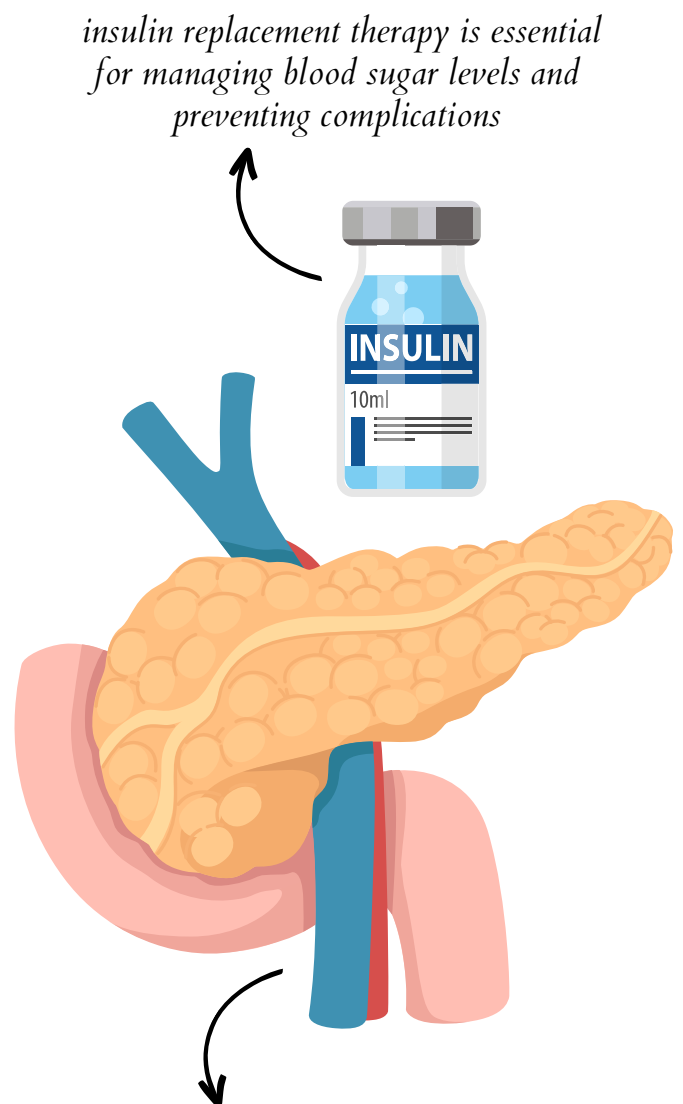
Regular Exercise: Aim for at least 150 minutes of moderate-intensity exercise weekly.

Blood Sugar Monitoring: Monitor blood sugar levels regularly and adjust insulin doses as needed.

Medication Adherence: Follow prescribed insulin therapy and treatment plans.

Stress Management: Practice stress-reducing techniques like meditation and deep breathing.

Regular Healthcare Visits: Attend regular check-ups to monitor diabetes management and address any concerns.



Type 1 diabetes is characterized by the autoimmune destruction of insulin-producing beta cells in the pancreas. This results in an absolute deficiency of insulin, leading to unregulated glucose levels in the bloodstream. Unlike Type 2 diabetes, which involves insulin resistance, Type 1 diabetes primarily involves the inability of the body to produce insulin, causing blood sugar imbalances.

Gestational Diabetes

WHAT IS GESTATIONAL DIABETES

Gestational diabetes occurs when the body cannot produce enough insulin during pregnancy to meet its extra needs. Insulin is a hormone that regulates blood sugar levels. When insulin production is insufficient, blood sugar levels can rise to higher than normal levels, leading to gestational diabetes.

WHO IS AT RISK

Overweight or Obesity: Women with a body mass index (BMI) above 30 are at a higher risk.

Age: Women over the age of 25, particularly those over 35, have a higher risk.

Family History: Having a close family member with type 2 diabetes increases the risk.

Previous Gestational Diabetes: Women who had gestational diabetes in a previous pregnancy are more likely to develop it again.

Polycystic Ovary Syndrome (PCOS): Women with PCOS have a higher risk.

Ethnicity: Certain ethnic groups, including African American, Hispanic, Native American, Asian, and Pacific Islander, have a higher risk.

Following a well-balanced diet that controls blood sugar levels is essential. This involves eating plenty of fruits, vegetables, whole grains, and lean proteins while limiting sugary and processed foods.

Regularly checking blood sugar levels helps ensure they stay within a healthy range. This may involve self-monitoring at home using a glucose meter.



QUESTIONS FOR EVERY STAGE OF YOUR *Diabetes Journey*

Before your visit, ask yourself...

- How have I been feeling lately? Have I experienced any new side effects?
- Has my blood glucose been mostly in range?
- Have I been taking my medicine(s) consistently, at the right time of day?

Receiving a new diagnosis

- Don't hesitate to ask about terms you don't know. For instance: *What is A1C?*
- What are the potential complications of diabetes, and how should I look out for them?
- What regular tests should I have?
- Do I need to keep track of my blood glucose? If so, what time of day should I check it?

Experiencing new symptoms

- What might be causing these symptoms?
- Could we change my treatment plan to address the cause?
- Could these symptoms be a sign of complications?
- Are there lifestyle changes I could make to help manage my symptoms?

Making healthy lifestyle choices

- Are there any programs that can help build healthy habits?
- Should I see a nutritionist? Is that covered by insurance?
- What should I be doing to take care of my mental health?



Blood Sugar

MONITORING

Regular blood sugar monitoring is a critical aspect of diabetes management, allowing individuals to track their glucose levels and make informed decisions about medication, diet, and lifestyle. Using a glucometer correctly ensures accurate readings and empowers individuals to maintain optimal blood sugar control.

THE IMPORTANCE OF REGULAR BLOOD SUGAR CHECKS:

- **Monitoring Trends:** Regular testing helps identify patterns and trends in blood sugar levels throughout the day, enabling adjustments to treatment plans as needed.
- **Preventing Complications:** Maintaining blood sugar within target ranges reduces the risk of long-term complications such as nerve damage, kidney disease, and cardiovascular problems.
- **Assessing Treatment Effectiveness:** Monitoring allows individuals and healthcare providers to evaluate the effectiveness of medication, diet, and lifestyle modifications on blood sugar control.
- **Early Detection of Hypoglycemia and Hyperglycemia:** Regular testing helps promptly detect and treat episodes of low or high blood sugar, preventing potentially dangerous complications.
- **Empowering Self-Management:** Blood sugar monitoring allows individuals to take an active role in their diabetes management, leading to better overall health outcomes.

HOW TO USE A GLUCOMETER

1. **Wash Hands:** Clean hands thoroughly with soap and water to ensure accurate results.
2. **Prepare Test Strip:** Insert a test strip into the glucometer according to the manufacturer's instructions.
3. **Prick Finger:** Use a lancet device to prick the fingertip gently and obtain a small drop of blood.
4. **Apply Blood to Test Strip:** Touch the drop of blood to the designated area on the test strip until the meter displays the blood glucose reading.
5. **Record Results:** Record the blood sugar reading and the date and time in a logbook or diabetes management app.
6. **Interpret Results:** Compare blood sugar readings to target ranges recommended by healthcare providers and take appropriate action based on the results.

HOW TO BALANCE

Blood Sugar

WHY IS THIS SIGNIFICANT?

Sustaining energy levels is essential for daily activities. Your body operates a sophisticated mechanism to maintain consistent energy levels. However, in our modern society, which often focuses on carbohydrates while shunning fats, this system can easily become strained. The decisions you make regarding your diet and eating habits can either bolster or undermine this delicate equilibrium. Prioritizing healthy blood sugar regulation is paramount for those aiming to enhance health through dietary and lifestyle choices.

METABOLIC ADAPTABILITY

A robust metabolism enables your body to smoothly transition between different states. This journey commences with supporting blood sugar stability.

WHAT IS INSULIN?

Following a high-carbohydrate (low-fat) meal, glucose inundates the bloodstream. To restore blood sugar levels to a balanced state, the pancreas secretes a hormone known as INSULIN.

Insulin signals all cells to absorb energy (interpreted as fat storage). Initially, you may experience a surge of well-being, but this sensation is short-lived. Sometimes, insulin becomes overly active, causing a rapid drop in blood sugar levels, leading to cravings and a return to the refrigerator.

Consistently riding this blood sugar rollercoaster can lead to the development of INSULIN RESISTANCE. This condition arises when cells fail to heed insulin's request to absorb energy. Over time, this may culminate in chronic metabolic conditions, such as type II diabetes and obesity.

HOW TO ACHIEVE SUGAR BALANCE

- **BLEND ENERGY SOURCES:** Counteract the rapid energy surge from carbohydrates by incorporating sustained energy sources such as healthy fats, protein, and fiber.
- **CONSIDER LIFESTYLE FACTORS:** Consistent physical activity and sufficient sleep play pivotal roles in enhancing insulin sensitivity.
- **LIMIT BETWEEN-MEAL SNACKS:** Strive for a metabolic state where your body can efficiently utilize fat reserves between meals, reducing the need for intermittent energy boosts.



The Glycemic Index

The amount of carbohydrates in a food (called "carb content") is a crucial factor affecting blood glucose. However, other factors also influence the blood glucose pattern following a meal or snack, including the quality of the carbs. The quality of the carb affects the rate at which it is digested; how quickly a food is broken down, in turn, affects how quickly blood glucose will rise when you eat that food. The reverse is true: foods that digest slowly can help prevent blood sugar from rising significantly.

For example, foods with high fiber content (which includes less-refined grains, such as those in whole grain bread) will be digested more slowly than similar foods with a low fiber content (which are often highly-refined grains, such as white bread); foods with a high-fat content (such as hash browns) will be digested more slowly than similar foods with a low-fat content (such as mashed potatoes). These different rates of digestion result in a different effect on blood glucose. This is the foundational idea behind the Glycemic Index (GI).

WHAT IS THE GLYCEMIC INDEX?

The Glycemic Index (GI) is a list of foods with a number assigned to each food. This number, a food's GI, describes how quickly (or slowly) that food will be digested: A food with a low GI value will be digested more slowly than a food with a high GI value; thus, a low GI food (such as oatmeal) will raise blood sugar slowly, while a high GI food (such as Cheerios) will raise blood sugar quickly.

According to the University of Sydney, the global authority for the glycemic index:

"The glycemic index (or GI) is a ranking of carbohydrates on a scale from 0 to 100 according to the extent to which they raise blood sugar (glucose) levels after eating. Foods with a high GI are rapidly digested, absorbed, and metabolized, resulting in marked fluctuations in blood sugar (glucose) levels. Low GI carbohydrates (are digested more slowly and) produce smaller fluctuations in your blood glucose."



In short:

The carb content of a food determines **how much** it will raise blood sugar.

The Glycemic Index of a food describes **how quickly** it will raise blood sugar.

WHY DOES THE *Glycemic Index Matter*

(I)

To start with, the concept of the Glycemic Index is essential for matching insulin action to the rate of digestion of a given food by timing insulin delivery to hold blood glucose as steady as possible after a meal or snack. To avoid post-meal blood glucose spikes, insulin needs to be delivered at a different time for high-glycemic index foods than for low-glycemic index foods.

In addition, a food's Glycemic Index (GI) value is relevant in choosing effective treatments for low blood glucose. A fast-acting sugar will increase blood glucose more quickly than a slower one. In other words, foods with a high glycemic value will raise blood glucose faster than those with a lower GI value (such as fruit juice or cola). This is not to say that lower GI foods cannot be used as low treatments, only that the delayed effect on blood glucose should be considered before providing a second low treatment for the same episode.

WHAT DO GLYCEMIC INDEX NUMBERS MEAN?

100 is the GI value of pure glucose, which raises blood glucose very quickly and is the standard against which all other foods are compared. When you look at a glycemic index list, the number beside each food indicates how quickly that food will raise your child's blood glucose.

A high number represents fast food digestion; high glycemic index foods will raise blood glucose quickly, resulting in higher and longer post-meal blood glucose spikes.

A low number represents slow food digestion; low glycemic index foods will raise blood glucose slowly, resulting in "flatter" post-meal blood sugar graphs.

LEVELS ON THE GLYCEMIC INDEX

Low GI foods have a GI value =	0-55
Medium GI foods have a GI value =	56-69
High GI foods have a GI value =	70+



WHY DOES THE *Glycemic Index Matter*

(II)

The key to managing blood glucose... matching insulin to food intake!

As is universally the case for type 1 diabetes, when eating any type of food, the goal is to match insulin action with the rate of digestion of the food so that there is the right amount of insulin at the right time to cover the food.

We need the right amount of insulin at the right time
for optimal post-meal blood glucose.

You might find that timing your regular insulin dose around 15 minutes before a meal works well for most meals. This timing usually matches the digestion rate of moderate glycemic index (GI) foods, helping to control blood sugar levels without causing them to drop too low. Rapid-acting insulin matches well with the digestion rate of these moderate GI foods.

However, with low GI meals, giving the usual insulin dose often leads to a drop in blood sugar followed by a rise later on. This happens because the insulin kicks in before all of the food is digested, leading to too much insulin initially and not enough later when the slowly digested food releases glucose into the bloodstream.



When dosing insulin for meals, consider the glycemic index (GI) of the foods being consumed. For moderate GI meals, timing your insulin dose about 15 minutes before eating can help control blood sugar levels effectively. However, for low GI meals, be cautious as giving the usual insulin dose may lead to a drop in blood sugar followed by a rise later on.

Insulin Resistance

WHAT IS INSULIN?

Your body strives to maintain a consistent supply of readily available energy, akin to fuel flowing through an engine's line. Just as you wouldn't want to overwhelm your engine, your body meticulously regulates blood sugar levels within a narrow, optimal range. "Overloading the system with excessive sugar or refined carbohydrates prompts the pancreas to secrete a hormone known as insulin. Insulin instructs all cells to absorb and store surplus energy, effectively extracting it from the bloodstream. Additionally, insulin inhibits glucose production in the liver and suppresses fat burning in cells, as there's no necessity to tap into reserves when sufficient resources are available.

If your diet contains high levels of sugar and refined carbohydrates, your body consistently secretes insulin to regulate blood sugar levels within the optimal range. Over time, cells may become less responsive to insulin signals, a condition known as insulin resistance. This results in excess sugar remaining in the bloodstream, damaging blood vessels and contributing to inflammatory diseases. Moreover, the normal signaling pathway controlling glucose production in the liver becomes disrupted, leading to unnecessary sugar production.

Restoring insulin sensitivity requires dietary adjustments, such as reducing carb and sugar intake and lifestyle modifications, including exercise, adequate sleep, and regular meals.

Consuming a sugary beverage on an empty stomach is guaranteed to cause a rapid increase in your blood sugar and insulin levels.



CONSEQUENCES

ELEVATED BLOOD SUGAR LEVELS

due to inadequate reduction

ENHANCED INFLAMMATION resulting from surplus blood glucose

ELEVATED INSULIN LEVELS facilitating energy storage (leading to weight gain)

OVERTAXED PANCREAS due to heightened insulin and glucagon production

DISRUPTED HORMONAL BALANCE influenced by insulin irregularities

GLYCEMIC INDEX

grains and starches

Low Glycemic Index (55 or less) Choose Most Often	Medium Glycemic Index (56 to 69) Choose Less Often	High Glycemic Index (70 or more) Choose Least Often
• BREAD Heavy Mixed Grain Breads Spelt Bread Sourdough Bread Tortilla (Whole Grain) • CEREAL: All-Bran™ Cereal All-Bran Buds™ With Psyllium Cereal Oat Bran Oats (Steel Cut) • GRAINS: Barley Bulgur Mung Bean Noodles Pasta (Al Dente, Firm) Pulse Flours Quinoa Rice (Converted, Parboiled) • OTHER: Peas Popcorn Sweet Potato Winter Squash	• BREAD: Chapati (White, Whole Wheat) Flaxseed/Linseed Bread Pita Bread (White, Whole Wheat) Pumpnickel Bread Roti (White, Whole Wheat) Rye Bread (Light, Dark, Whole Grain) Stone Ground Whole Wheat Bread Whole Grain Wheat Bread • CEREAL: Oats (Instant) Oats (Large Flake) Oats (Quick) Grains: Basmati Rice Brown Rice Cornmeal Couscous Rice Noodles White Rice Wild Rice • OTHER Beets Corn French Fries Parsnip Potato (Red, White, Cooled) Rye Crisp Crackers Crackers	• BREADS: Bread (White, Whole Wheat) Naan (White, Whole Wheat) • CEREAL: Corn Flakes Cereal Cream of Wheat (Instant) Puffed Wheat Cereal Rice Krispies Cereal • GRAINS: Jasmine Rice Millet Sticky Rice White Rice (Instant) • OTHER: Carrots Potato (Instant Mashed) Potato (Red, White, Hot) Pretzels Rice Cakes Soda Crackers

GLYCEMIC INDEX

fruit

Low Glycemic Index (55 or less) Choose Most Often	Medium Glycemic Index (56 to 69) Choose Less Often	High Glycemic Index (70 or more) Choose Least Often
Apple Apricot (Fresh, Dried) Banana (Green, Unripe) Berries Cantaloupe Grapefruit Honeydew Melon Mango Orange Peach Pear Plum Pomegranate Prunes	Banana (Ripe, Yellow) Cherries (Bottled) Cherries (Fresh) Cranberries (Dried) Figs (Fresh, Dried) Grapes Kiwi Lychee Pineapple Raisins	Banana (Brown, Overripe) Watermelon

GLYCEMIC INDEX

***milk, alternatives and other
beverages***

Low Glycemic Index (55 or less) Choose Most Often	Medium Glycemic Index (56 to 69) Choose Less Often	High Glycemic Index (70 or more) Choose Least Often
Almond Milk Cow Milk (Skim, 1%, 2%, Whole) Frozen Yogurt Greek Yogurt Soy Milk Yogurt (Skim, 1%, 2%, Whole)		Rice Milk

WHAT IS *Metabolic Syndrome*

Metabolic syndrome is a multifaceted health condition characterized by a cluster of interconnected factors that significantly increase the risk of cardiovascular diseases, type 2 diabetes, and other serious health complications.

Studies, including research published in reputable journals like the Journal of the American College of Cardiology, have demonstrated the efficacy of lifestyle interventions, particularly dietary modifications, in managing and preventing metabolic syndrome. For instance, adherence to a Mediterranean-style diet, characterized by high consumption of fruits, vegetables, whole grains, lean proteins, and healthy fats, has shown promising results in improving various metabolic parameters and reducing the risk of metabolic syndrome.



COMPONENTS

- 1. High Blood Pressure (Hypertension):** Elevated blood pressure levels strain the heart and blood vessels, increasing the risk of heart disease, stroke, and kidney problems.
- 2. High Blood Sugar (Hyperglycemia):** Elevated blood glucose levels, often stemming from insulin resistance, can lead to type 2 diabetes and its associated complications, such as nerve damage, kidney disease, and vision problems.
- 3. Excess Abdominal Fat:** Visceral fat accumulation around the abdomen is a key marker of metabolic syndrome and is strongly linked to insulin resistance, inflammation, and an increased risk of cardiovascular disease.
- 4. Abnormal Lipid Levels:** Imbalances in cholesterol (specifically low-density lipoprotein, LDL) and triglyceride levels contribute to plaque formation in the arteries, raising the risk of atherosclerosis, heart attack, and stroke.

The Low-Carb Diet

TO MANAGE DIABETES

WHAT IS A LOW-CARB DIET?

A low-carb diet focuses on reducing the consumption of carbohydrates, including sugars and starches, and replacing them with protein and healthy fats. This approach aims to minimize spikes in blood sugar levels by limiting the body's need for insulin.



A low-carb diet can be an effective strategy for managing diabetes by controlling blood sugar levels, improving insulin sensitivity, and promoting weight loss.

PRINCIPLES

- 1. Restriction of Carbohydrates:** The primary principle of a low-carb diet is to limit the intake of carbohydrates, typically to around 20-50 grams per day. This involves avoiding sugary foods, grains, starchy vegetables, and processed snacks.
- 2. Emphasis on Protein and Healthy Fats:** Protein-rich foods such as lean meats, fish, eggs, and dairy products are staples of a low-carb diet. Healthy fats from sources like avocados, nuts, seeds, and olive oil are also encouraged.
- 3. Focus on Whole Foods:** Whole, unprocessed foods are preferred over refined and packaged products. This includes fruits, vegetables, nuts, seeds, and minimally processed meats.
- 4. Portion Control:** While the emphasis is on reducing carbohydrates, portion control is still important to avoid overeating high-calorie foods. Balancing protein, fats, and carbohydrates in each meal can help maintain satiety and prevent over-consumption.

The Mediterranean Diet

TO MANAGE DIABETES

WHAT IS THE MEDITERRANEAN DIET?

The Mediterranean diet is characterized by an abundance of fruits, vegetables, whole grains, legumes, nuts, seeds, and olive oil. It also includes moderate consumption of fish and poultry, occasional dairy products, and limited intake of red meat and sweets. This dietary pattern emphasizes nutrient-rich foods and encourages a balanced approach to eating.



The Mediterranean diet offers a flavorful and nutritionally rich approach to managing diabetes by emphasizing whole, unprocessed foods and healthy fats. Incorporating the principles of the Mediterranean diet into your eating habits can promote better blood sugar control, support heart health, and contribute to overall well-being.

PRINCIPLES

- 1. Plant-Based Emphasis:** The Mediterranean diet prioritizes plant-based foods, including fruits, vegetables, whole grains, legumes, nuts, and seeds. These foods are rich in fiber, vitamins, minerals, and antioxidants, which support overall health and may help regulate blood sugar levels.
- 2. Healthy Fats:** Olive oil is a cornerstone of the Mediterranean diet, providing monounsaturated fats that have been linked to heart health and improved insulin sensitivity. Additionally, fatty fish such as salmon, mackerel, and sardines are sources of omega-3 fatty acids, which have anti-inflammatory properties and may benefit individuals with diabetes.
- 3. Moderate Protein:** While the Mediterranean diet includes moderate amounts of fish, poultry, eggs, and dairy, it limits the consumption of red meat. Lean protein sources are preferred, and plant-based proteins such as legumes and nuts are encouraged.
- 4. Whole Foods:** Processed and refined foods are minimized in the Mediterranean diet, with an emphasis on whole, minimally processed ingredients. This includes whole grains, fresh produce, and homemade meals prepared with simple ingredients.

The Dash Diet

TO MANAGE DIABETES

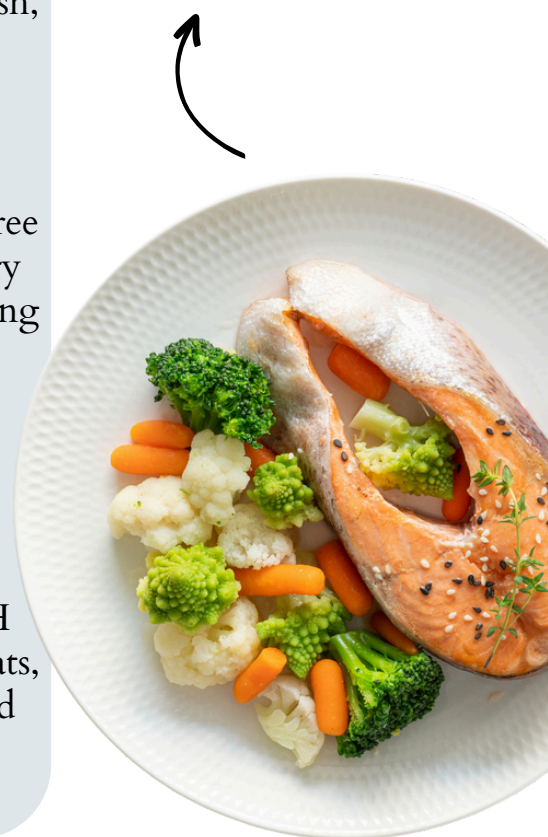
WHAT IS THE DASH DIET?

The Dietary Approaches to Stop Hypertension (DASH) diet is a dietary pattern designed to lower blood pressure and improve overall health. It emphasizes fruits, vegetables, whole grains, lean proteins, and low-fat dairy products while limiting salt, saturated fats, and added sugars.

PRINCIPLES

1. **Fruits and Vegetables:** The DASH diet encourages the consumption of a variety of colorful fruits and vegetables, which are rich in vitamins, minerals, fiber, and antioxidants.
2. **Whole Grains:** Whole grains such as brown rice, quinoa, oats, and whole wheat bread are staples of the DASH diet. They provide complex carbohydrates, fiber, and essential nutrients, promoting steady energy levels and satiety.
3. **Lean Proteins:** Lean sources of protein, such as poultry, fish, beans, lentils, and tofu, are emphasized on the DASH diet. These protein sources are lower in saturated fat and cholesterol, making them heart-healthy choices for individuals with diabetes.
4. **Low-Fat Dairy:** The DASH diet includes low-fat or fat-free dairy products such as milk, yogurt, and cheese. These dairy foods provide calcium, vitamin D, and protein while keeping saturated fat intake in check.
5. **Limit Salt and Sodium:** The DASH diet restricts salt and sodium intake to help lower blood pressure. Reducing sodium can also benefit individuals with diabetes by preventing fluid retention and reducing the risk of cardiovascular complications.
6. **Minimize Saturated Fats and Added Sugars:** The DASH diet recommends limiting saturated fats, found in fatty meats, full-fat dairy products, and processed foods, as well as added sugars, found in sugary snacks, desserts, and sweetened beverages.

The DASH diet offers a well-rounded and flexible approach to managing diabetes by promoting healthy eating habits and supporting blood sugar control.



5 STEPS

For a Better Living with Diabetes

1 EAT HEALTHY

Follow a balanced diet that includes plenty of fruits, vegetables, whole grains, lean proteins, and healthy fats. Limit your intake of sugary snacks, processed foods, and high-carbohydrate meals.

- Pay attention to serving sizes to manage blood sugar levels.
- Learn to count carbohydrates to help regulate insulin doses.
- Opt for foods that have a minimal impact on blood sugar levels, such as whole grains and non-starchy vegetables.

4 MONITOR

- Check your blood sugar levels as recommended by your healthcare provider, and keep a record of your readings.
- Learn what blood sugar levels are considered normal and what levels indicate hypo- or hyperglycemia.
- Look for trends in your blood sugar levels throughout the day to identify factors that affect your diabetes management.

2 TAKE MEDICATION

- Use pill organizers to ensure you take the right medication at the right time.
- When traveling or going out, always carry necessary medications and supplies with you.

3 BE ACTIVE

- Choose activities such as walking, swimming, or cycling that you find enjoyable and can stick with long-term.
- Start with achievable goals and gradually increase the duration and intensity of your workouts.
- Aim for at least 30 minutes of moderate-intensity exercise most days of the week.

5 GET REGULAR CHECK-UPS

- Make regular visits to your healthcare provider for check-ups, screenings, and adjustments to your treatment.
- Be honest with your healthcare team about your symptoms, concerns, and challenges related to diabetes.

6 STEPS *To Prevent Type 2 Diabetes*

1. **Maintain a Healthy Weight:** Aim to achieve and maintain a healthy weight by following a balanced diet and engaging in regular physical activity. Losing even a small amount of weight if you're overweight can significantly reduce your risk of developing type 2 diabetes.
2. **Eat a Balanced Diet:** Focus on eating a variety of nutritious foods, including fruits, vegetables, whole grains, lean proteins, and healthy fats. Limit your intake of processed foods, sugary snacks, and beverages high in added sugars. A diet rich in fiber and low in refined carbohydrates can help regulate blood sugar levels and reduce the risk of diabetes.
3. **Stay Active:** Incorporate regular physical activity into your daily routine. Aim for at least 150 minutes of moderate-intensity aerobic exercise, such as brisk walking, cycling, or swimming, each week. Additionally, include strength training exercises at least two days a week to improve muscle strength and overall health.
4. **Monitor Your Blood Sugar Levels:** If you have prediabetes or other risk factors for diabetes, monitor your blood sugar levels regularly. This can help you track your progress and make necessary adjustments to your lifestyle to prevent the progression to type 2 diabetes.
5. **Manage Stress:** Chronic stress can contribute to insulin resistance and increase the risk of type 2 diabetes. Practice stress-reducing techniques such as deep breathing, meditation, yoga, or engaging in hobbies you enjoy. Prioritizing self-care and finding healthy ways to cope with stress can support overall health and diabetes prevention.
6. **Get Regular Check-ups:** Schedule regular check-ups with your healthcare provider to monitor your overall health and assess your risk of developing type 2 diabetes. Your doctor can provide personalized recommendations based on your medical history, lifestyle, and risk factors.



HOW TO READ A *Food Label*

Nutrition Facts	
About 18 servings per container	
Serving size	1/4 cup (40g)
Amount per serving	
Calories	150
% Daily Value*	
Total Fat 1g	1%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 0mg	0%
Total Carbohydrate 29g	11%
Dietary Fiber 6g	21%
Total Sugars 1g	
Includes 0g Added Sugars	0%
Protein 6g	
Vitamin D 0mcg	0%
Calcium 14mg	2%
Iron 2mg	10%
Potassium 167mg	4%
*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.	

INGREDIENTS: Whole Grain Wheat, Corn, Whole Grain Rye, Whole Grain Triticale, Whole Grain Oats, Soy Beans, Whole Grain Millet, Barley, Whole Grain Brown Rice, Oat Bran, Flaxseed. CONTAINS: Wheat and Soy.

serving size indicates the typical recommended-consumption amount

calories say nothing of the overall health of the product (focus on ingredients first)

fat content is not about quantity, but quality (minimize trans fat and processed seed oils)

dietary cholesterol has little impact on cholesterol levels in your body (so do not worry too much about this measure)

sodium is not bad (but essential); focus on overall food quality, and your kidneys should balance your sodium levels

total carbohydrate equals fiber + sugar

fiber will balance the impact of other sugars, improve gut regularity, and nourish your microbiome

added sugar is one of the most important things to look at (and minimize)

extra **nutrient content** is great, but most micronutrients should come from whole foods that have no label

read the **ingredients list** first (if you do not recognize something, your body will not either)

- <6 ingredients is ideal
- listed by descending weight
- manufacturers will use 2+ forms of sugar, so they appear lower on the list
- parenthesis can make certain ingredients seem to be more/less
- be cautious of vague ingredients like "natural flavors" or "spices"
- gluten is not listed as a top allergen

THE IMPORTANCE OF *Fiber*

WHAT IS FIBER?

Fiber is an essential nutrient found in plant-based foods, including fruits, vegetables, whole grains, legumes, nuts, and seeds. Unlike other carbohydrates, fiber cannot be digested by the human body, but it offers numerous health benefits that are particularly valuable for individuals managing diabetes.

FIBER BENEFITS:

- **Satisfying Fullness:** Fiber-rich foods provide a sense of fullness and satiety, helping to control hunger and manage portion sizes, which can be beneficial for individuals with diabetes aiming to control their weight and blood sugar levels.
- **Digestive Pace-setter:** By slowing down the absorption of nutrients, fiber helps stabilize blood sugar levels, reducing the risk of sudden spikes and crashes that can lead to cravings for sugary snacks. This steady digestion can support better glucose control in individuals with diabetes.
- **Caloric Lightness:** Fiber-rich foods are often low in calories but high in volume, allowing you to enjoy larger portions without consuming excess calories. This can help promote weight management, which is important for individuals with diabetes to maintain overall health.



HOW TO INCORPORATE MORE FIBER

1. **Choose whole, minimally processed foods:** Opt for whole grains like brown rice, quinoa, and oats, as well as plenty of fruits, vegetables, legumes, nuts, and seeds.
2. **Aim for variety:** Include a wide range of fiber-rich foods in your diet to ensure you're getting different types of fiber and a diverse array of nutrients.
3. **Read food labels:** Look for foods labeled as "high in fiber" and check the nutrition facts panel to see the fiber content per serving.
4. **Increase fiber intake gradually:** To prevent digestive discomfort, gradually increase your fiber intake over time and drink plenty of water to help fiber move through your digestive system smoothly.



Types of Sugar

REFINED SUGAR

refined sugar undergoes processing to yield a sweet taste and is frequently identified on product labels

- candy
- cookies, cake, etc.
- baking sugar
- corn syrup
- sweetened beverages
- syrups & jams
- ice cream

SNEAKY SUGAR

hidden sugars are frequently concealed in food products marketed as "healthy"

- yogurt (especially with fruit)
- granola
- energy / granola bars
- packed smoothies
- salad dressings
- nut butter
- kombucha

PRE-SUGAR

pre-sugars may not necessarily have a sweet taste, but they swiftly convert to glucose in your body

- bread
- pasta
- cereal
- crackers
- puffs & pretzels
- white flour-based products
- potato-based products

NATURAL FRUIT SUGAR

the metabolism of fruit sugar is facilitated by the fiber, enzymes, and nutrients found in whole fruits

- grapes
- bananas
- mangos
- cherries
- pineapples
- figs
- pomegranates



Natural Sweeteners

Honey

Honey is a natural sweetener that is produced by bees. It contains small amounts of vitamins and minerals and has antioxidant and antibacterial properties. Honey is often used in baking and cooking and can be added to tea or other beverages for sweetness.



Maple syrup

Maple syrup is a natural sweetener that is made from the sap of maple trees. It contains antioxidants and small amounts of minerals like calcium, potassium, and iron. Maple syrup is often used in baking and cooking and can be added to oatmeal or other breakfast foods for sweetness.

Coconut sugar

Coconut sugar is a natural sweetener that is made from the sap of coconut palms. It contains small amounts of vitamins and minerals and has a lower glycemic index than traditional sugar. Coconut sugar is often used in baking and cooking.



Agave nectar

Agave nectar is a natural sweetener made from the sap of the agave plant. It is sweeter than sugar but has a lower glycemic index, meaning it has a smaller impact on blood sugar levels. Agave nectar is often used as a vegan alternative to honey.

Zero-Calorie Sweeteners

Stevia

Stevia is a natural sweetener that is derived from the stevia plant. It is much sweeter than sugar but contains no calories and has a negligible effect on blood sugar levels.



Monk fruit extract

Monk fruit extract, also known as Luo Han Guo, is a natural sweetener derived from the monk fruit. It contains zero calories and is significantly sweeter than sugar. Monk fruit extract is available in liquid and powdered forms.



Erythritol

Erythritol is a sugar alcohol that occurs naturally in certain fruits and fermented foods. It has zero calories and is about 70% as sweet as sugar. Erythritol is often used as a sugar substitute in baking and cooking. It can also be found in many low-calorie and sugar-free products, such as candies, chewing gum, and beverages.



Xylitol

Xylitol is a zero-calorie sweetener derived from birch bark or corn cobs. It resembles sugar in taste but contains fewer calories and offers dental health benefits by inhibiting cavity-causing bacteria.

Commonly used in sugar-free gum and oral care products, it can also be used in cooking and baking. However, overconsumption may lead to digestive issues, so moderation is advised.



Sugar

AND WEIGHT GAIN

Sugar is a significant factor in weight gain. It's a concentrated source of calories, and excessive consumption can lead to an increase in calorie intake, which, in turn, can result in weight gain. This is because when you consume more calories than your body needs for energy, the excess is stored as fat.

There are two primary types of sugar: natural sugars and added sugars.

Natural sugars, found in fruits, vegetables, and dairy products, are generally accompanied by essential nutrients like fiber, vitamins, and minerals. These foods can be part of a healthy diet. On the other hand, **added sugars**, found in processed foods and sugary beverages, provide "empty" calories with little to no nutritional value.

One significant concern with high sugar intake is its impact on insulin levels. When you consume a lot of sugar, your blood sugar levels spike, prompting the release of insulin. Insulin is a hormone that helps regulate blood sugar, but it also plays a role in fat storage. Frequent and excessive sugar consumption can lead to insulin resistance, where your cells become less responsive to insulin, potentially promoting fat storage.

Managing your sugar intake is crucial for maintaining a healthy weight. Reading food labels can help you identify added sugars in processed foods. Pay attention to ingredient lists and nutrition labels, particularly the "Total Sugars" section. Choosing whole foods like fruits, vegetables, and whole grains over sugary snacks is a wise choice. Additionally, limiting sugary beverages such as soda and fruit juices can significantly reduce your sugar intake.

While it's essential to be mindful of your sugar consumption, it's equally important to focus on overall dietary balance. A well-rounded diet that includes a variety of nutrient-rich foods, along with regular physical activity, is key to achieving and maintaining a healthy weight.

Remember, moderation and balance are the cornerstones of a healthy lifestyle.



MINDFUL PORTION CONTROL FOR

Diabetes Management

Protein:

- Chicken breast: 3-4 ounces (about the size of a deck of cards)
- Fish fillet: 3-4 ounces
- Tofu: 3 ounces (about the size of a deck of cards)
- Lean beef or pork: 3-4 ounces
- Eggs: 2 large eggs
- Cottage cheese: 1/2 cup

Carbohydrates:

- Cooked rice: 1/2 cup (about the size of a hockey puck)
- Cooked pasta: 1/2 cup
- Quinoa: 1/2 cup cooked
- Sweet potatoes: 1/2 cup mashed
- Whole grain bread: 1 slice
- Oats: 1/2 cup cooked

Healthy Fats:

- Avocado: 1/4 to 1/2 avocado
- Nuts (almonds, walnuts, etc.): 1 ounce (about a small handful)
- Seeds (chia seeds, flaxseeds, etc.): 1 tablespoon
- Olive oil: 1 tablespoon
- Nut butter (peanut butter, almond butter, etc.): 2 tablespoons

Starchy Vegetables:

- Potatoes: 1/2 cup cooked (about the size of a computer mouse)
- Corn: 1/2 cup cooked
- Butternut squash: 1/2 cup cooked
- Peas: 1/2 cup cooked
- Acorn squash: 1/2 cup cooked

Non-Starchy Vegetables:

- Broccoli: 1 cup (about the size of a baseball)
- Bell peppers: 1 cup sliced
- Carrots: 1/2 cup sliced
- Zucchini: 1 cup sliced
- Cauliflower: 1 cup florets

Green Vegetables:

- Spinach: 1 cup raw (about the size of a baseball)
- Kale: 1 cup raw
- Lettuce: 2 cups raw
- Swiss chard: 1 cup cooked
- Collard greens: 1 cup cooked



Healthy Cooking

FOR DIABETES

Cooking healthy and delicious meals is an essential aspect of diabetes management. It allows individuals to control their blood sugar levels while enjoying flavorful and nutritious foods.

By incorporating fresh ingredients, mindful cooking techniques, and balanced meal planning, individuals with diabetes can maintain optimal health and well-being.

HEALTHY COOKING TIPS

- Choose nutrient-rich whole foods like fruits, vegetables, lean proteins, and whole grains.
- Practice portion control by using smaller plates and utensils to avoid overeating.
- Limit added sugars and refined carbohydrates, opting for whole grains and natural sweeteners.
- Include healthy fats from sources like avocados, nuts, and olive oil to promote satiety and heart health.
- Enhance flavor with herbs, spices, and citrus zest instead of relying on salt and high-fat sauces.
- Plan meals ahead and prep ingredients to make healthy eating convenient.
- Monitor carbohydrate intake and pair them with protein and healthy fats to manage blood sugar levels.
- Stay hydrated with water and limit sugary beverages for overall health and well-being.



Don't be afraid to explore new ingredients and healthy cooking techniques. Experimenting with different foods and recipes can make your meals exciting and enjoyable while further enhancing their nutritional value.

Cooking Light

Diabetic-friendly Swaps and Substitutions

MORE OF THIS

- **Whole Wheat Flour:** Use whole wheat flour instead of all-purpose flour in baking for added fiber and nutrients.
- **Greek Yogurt:** Replace sour cream or mayonnaise with Greek yogurt in recipes for creaminess and protein.
- **Zucchini Noodles (Zoodles):** Swap out regular pasta with zucchini noodles for a low-carb alternative.
- **Cauliflower Rice:** Substitute cauliflower rice for traditional rice in dishes for fewer carbs and calories.
- **Avocado:** Use mashed avocado as a butter or oil replacement in baking for healthy fats.
- **Lean Ground Turkey:** Opt for lean ground turkey instead of higher-fat ground beef in recipes.
- **Oatmeal:** Incorporate oats into recipes as a binder or filler instead of breadcrumbs.
- **Baked Sweet Potato Fries:** Make sweet potato fries instead of regular fries for added vitamins and fiber.
- **Stevia or Monk Fruit:** Substitute artificial sweeteners like Stevia or Monk Fruit for sugar in beverages and baking.

LESS OF THIS

- **White Sugar:** Avoid using white sugar, as it's high in empty calories and provides no nutritional value.
- **Regular Butter:** Steer clear of regular butter high in saturated fats, and choose healthier alternatives.
- **Deep-Fried Foods:** Eliminate deep-fried foods from recipes to reduce unhealthy trans fats and excess calories.
- **Processed Meats:** Don't use processed meats like bacon or sausage, high in sodium and unhealthy fats.
- **White Bread:** Replace white bread with whole wheat or multigrain bread for more fiber.
- **Regular Pasta:** Skip regular pasta and choose whole wheat or vegetable-based options.
- **Regular Potato Chips:** Steer clear of regular potato chips in favor of baked or air-popped versions.
- **Soda and Sugary Drinks:** Avoid sugary drinks like soda; opt for water, herbal tea, or unsweetened beverages.
- **Artificial Trans Fats:** Be cautious of products containing artificial trans fats, often found in some margarine and processed snacks.

DIABETIC

Healthy Snacks



Almonds - 1 handful
Mixed nuts - 1 handful
Sunflower seeds - 1 handful
Nut butter (natural) & celery - 2 Tbsp

Olives - 1/2 cup
Berries - 1 cup (blueberries, strawberries, raspberries)



Raw vegetables (carrots, broccoli, cauliflower, peppers, cucumber) - 1 cup

Hummus (homemade) - 4 Tbsp

Chia pudding - 1/2 cup

Guacamole & veggies (sliced bell peppers, cucumber, carrots) - 1 cup

Kale chips - 1 cup

Cottage cheese - 1/2 cup

Plain yogurt - 1/2 cup

Hard-boiled eggs - 2 eggs

Cheese slices - 2 slices (cheddar, Swiss, or mozzarella)

Smoked salmon with cucumber slices - 2 oz



DIABETES AND *Heart Health*

STRATEGIES FOR COMPREHENSIVE MANAGEMENT

- **Lifestyle Modifications:** Adopting a healthy lifestyle, including regular exercise, a balanced diet, weight management, and smoking cessation, plays a pivotal role in managing both diabetes and heart health.
- **Medication Adherence:** Strict adherence to prescribed medications, including anti-diabetic drugs, statins, and anti-hypertensive medications, is essential for controlling blood sugar levels, lipid profiles, and blood pressure.
- **Regular Monitoring:** Routine monitoring of blood glucose, blood pressure, lipid levels, and other relevant parameters is critical for early detection of complications and timely intervention.
- **Integrated Care Approach:** Collaborative care involving healthcare providers from multiple disciplines, including endocrinologists, cardiologists, dietitians, and primary care physicians, ensures comprehensive management tailored to individual needs.

Diabetes and heart health are closely intertwined, with each condition significantly influencing the other.

Cardiovascular Complications of Diabetes:

- **Atherosclerosis:** Diabetes accelerates the process of atherosclerosis, the buildup of plaque in the arteries, increasing the risk of heart attack and stroke.
- **Hypertension:** Diabetes is often associated with high blood pressure, which further strains the heart and blood vessels, raising the risk of cardiovascular diseases.
- **Dyslipidemia:** Individuals with diabetes commonly have abnormal lipid profiles, including high levels of LDL cholesterol and triglycerides, which contribute to cardiovascular risk.

Impact of Heart Health on Diabetes Management:

- **Cardiovascular Disease (CVD):** CVD is the leading cause of death among individuals with diabetes.
- **Microvascular Complications:** Diabetes can damage small blood vessels, leading to complications such as diabetic retinopathy, nephropathy, and neuropathy.

DIABETES AND *Sleep* (I)

Quality sleep is essential for overall health and well-being, but it also plays a significant role in diabetes management.

Understanding the relationship between sleep and diabetes can help individuals with diabetes prioritize healthy sleep habits to improve blood sugar control and reduce the risk of complications.

Adequate sleep promotes mental and physical well-being, which are essential for managing stress and maintaining a balanced lifestyle with diabetes.

THE CONNECTION BETWEEN SLEEP AND DIABETES

Impact on Blood Sugar Levels:

- Poor sleep quality or inadequate sleep duration can affect hormone regulation, leading to insulin resistance and higher blood sugar levels.
- Sleep deprivation disrupts the body's ability to regulate glucose metabolism, increasing the risk of hyperglycemia.

Influence on Weight Management:

- Sleep deprivation alters hunger hormones, increasing appetite and cravings for high-calorie foods, which can contribute to weight gain and obesity.
- Obesity is a significant risk factor for type 2 diabetes, highlighting the importance of adequate sleep in weight management and diabetes prevention.

Effect on Insulin Sensitivity:

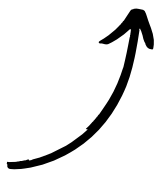
- Quality sleep promotes optimal insulin sensitivity, allowing cells to efficiently use glucose for energy and reducing the need for higher insulin levels to control blood sugar.
- Chronic sleep deprivation or poor sleep quality can lead to insulin resistance, impairing blood sugar control and increasing the risk of type 2 diabetes.



DIABETES AND *Sleep* (II)



Improving sleep quality is effortless with high-quality mattresses and bedding, offering the comfort and support needed for a restful night's sleep.



TIPS FOR BETTER SLEEP

PRIORITIZE YOUR BED FOR SLEEP AND INTIMACY

Reserve your bed solely for sleep and intimate moments, avoiding activities like eating, scrolling, or working.

KEEP YOUR BEDROOM AS DARK AS POSSIBLE

Invest in blackout curtains and unplug devices with bright lights to create a dark environment conducive to sleep.

MINIMIZE SCREEN TIME BEFORE BED

Reduce exposure to stimulating screens. Blue light can disrupt melatonin production and affect sleep quality. Consider wearing blue light-blocking glasses, activating blue light filters on devices, or switching devices to airplane mode during sleep.

EXPOSE YOURSELF TO BRIGHT MORNING SUNLIGHT

Expose yourself to bright morning sunlight to regulate your circadian rhythm, boost daytime energy levels, and improve sleep quality at night.

INCORPORATE REGULAR PHYSICAL ACTIVITY

Engage in regular physical activity during the day to promote better sleep quality at night.

LIMIT FOOD INTAKE BEFORE BED

Finish eating at least two hours before bedtime to avoid disruption of sleep. Opt for a balanced meal containing protein, healthy fats, and complex carbohydrates to stabilize blood sugar levels overnight.

DIABETES AND *Exercise*

BENEFITS

- improved insulin sensitivity
- cardiovascular/heart health
- blood sugar control
- weight management
- brain & nervous system health
- digestive health
- muscle strength
- bone strength
- inflammation reduction
- metabolism regulation
- stress reduction

Exercise plays a crucial role in managing diabetes by improving insulin sensitivity, lowering blood sugar levels, and reducing the risk of complications, while also making movement enjoyable and empowering individuals to lead active and fulfilling lives.

Understanding the benefits of exercise empowers individuals with diabetes to incorporate physical activity into their daily routine for better health outcomes.

ENJOYING MOVEMENT

BE CONSISTENT, NOT CHRONIC
chronic overexercise can be unhealthy when it is TOO stressful

DO SOMETHING YOU ENJOY
movement doesn't have to involve a treadmill (try hiking, rock-climbing, kayaking, biking, tennis, yoga, or an activity you look forward to)

FIND ACCOUNTABILITY
plan movement with a friend, family member, or dog to get you going when you're not motivated

LISTEN TO YOUR BODY
there is a difference between being lazy and being gentle with yourself (if intensity feels wrong today, opt for something more relaxed)



DIABETES AND *Stress Management*

Living with diabetes can be challenging, and managing stress is crucial for overall health and well-being. Stress can affect blood sugar levels and may make it harder to manage diabetes effectively.

STRESS MANAGEMENT TECHNIQUES

- **Mindfulness Meditation:** Practice mindfulness meditation to cultivate awareness of the present moment and reduce stress. Focus on your breath, bodily sensations, or the environment around you.
- **Deep Breathing Exercises:** Deep breathing exercises activate the body's relaxation response. Take slow, deep breaths, filling your lungs with air and then exhaling slowly.
- **Regular Exercise:** Incorporate regular physical activity into your routine to reduce stress and improve mood. Exercise releases endorphins, chemicals in the brain that act as natural stress relievers. Aim for at least 30 minutes of moderate-intensity exercise most days of the week.
- **Progressive Muscle Relaxation:** Practice progressive muscle relaxation by systematically tensing and relaxing different muscle groups in your body. Start with your toes and work your way up to your head, focusing on releasing tension with each muscle group.
- **Yoga or Tai Chi:** Participate in yoga or tai chi classes to promote relaxation, flexibility, and stress reduction. These mind-body practices combine gentle movements with deep breathing and meditation, offering holistic benefits for physical and mental health.
- **Healthy Lifestyle Choices:** Maintain a healthy lifestyle by eating a balanced diet, getting adequate sleep, and avoiding excessive alcohol and caffeine consumption. Making healthy choices can help reduce stress and support optimal blood sugar management.



Your Carbohydrate Encyclopedia

**CALORIES, CARBS, AND FIBER CONTENT PER 100G
(RAW WEIGHT)**

GRAINS



Rolled Oats
336 cal, 50g carbs,
9.5g fiber

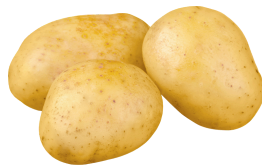


Brown Rice
338 cal, 69g carbs,
3.5g fiber



Quinoa
347 cal, 59g carbs,
12g fiber

VEGETABLES



White Potatoes
68 cal, 14g carbs,
2.3g fiber



Sweet Potatoes
86 cal, 20g carbs,
3g fiber



Red Kidney Beans (canned)
90 cal, 14g carbs,
6.5g fiber

FRUIT



Strawberries
21 cal, 4g carbs,
2.5g fiber



Green Pear
60 cal, 12g carbs,
3g fiber



Banana
87 cal, 20g carbs,
2.2g fiber

Your Fruit Encyclopedia

**CALORIES AND CARBS CONTENT PER 100G
(RAW WEIGHT)**



Grapefruit

336 cal, 50g carbs



Purple Plum

35 cal, 7g carbs



Strawberries

21 cal, 4g carbs



Red Apple

52 cal, 13g carbs



Blueberries

40 cal, 9g carbs



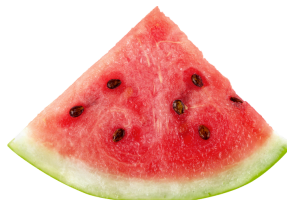
Green Pear

60 cal, 13g fiber



Mango

54 cal, 13g carbs



Watermelon

31 cal, 7g carbs



Banana

87 cal, 20g carbs



Green Grapes

64 cal, 15g carbs



Peach

38 cal, 9g carbs



Pineapple

34 cal, 8g carbs

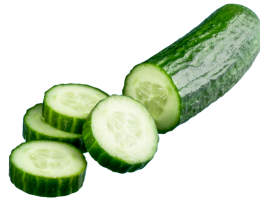
Your Veggie Encyclopedia

**CALORIES AND CARBS CONTENT PER 100G
(RAW WEIGHT)**



Broccoli

34 cal, 7g carbs



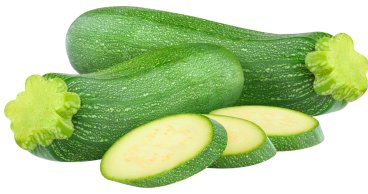
Cucumber

30 cal, 6g carbs



Mushrooms

22 cal, 3g carbs



Zucchini

17 cal, 3g carbs



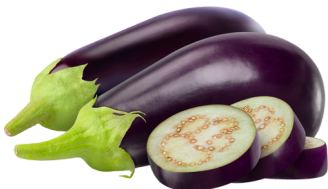
Iceberg Lettuce

14 cal, 3g carbs



Brussels Sprouts

43 cal, 9g carbs



Eggplant

41 cal, 10g carbs



Tomato

19 cal, 3g carbs



Bell Pepper

21 cal, 4.3g carbs



Carrot

64 cal, 15g carbs



Butternut Squash

45 cal, 12g carbs



Beetroot

43 cal, 10g carbs

DIABETES-FRIENDLY

Sweet Treats

(I)

CHOCOLATE AVOCADO MOUSSE

Ingredients:

- 2 ripe avocados
- 1/4 cup cocoa powder
- 1-2 tsp stevia or erythritol
- 1 teaspoon vanilla extract
- Pinch of salt
- Optional toppings: sliced strawberries, raspberries, chopped nuts



Instructions:

1. Scoop the flesh of the ripe avocados into a blender or food processor.
2. Add the cocoa powder, stevia or erythritol, vanilla extract, and a pinch of salt to the blender.
3. Blend until smooth and creamy, scraping down the sides of the blender as needed to ensure everything is well combined.
4. Taste the mousse and adjust the sweetness if needed by adding more maple syrup or agave nectar.
5. Transfer the chocolate avocado mousse to serving bowls or glasses.
6. Chill in the refrigerator for at least 30 minutes before serving.
7. Optional: Garnish with sliced strawberries, raspberries, or chopped nuts.

DIABETES-FRIENDLY

Sweet Treats

(II)

COCONUT STRAWBERRY CHIA PUDDING

Ingredients:

- 1/4 cup chia seeds
- 1 cup unsweetened coconut milk (or any other plant-based milk)
- 1 tablespoon stevia or erythritol
- 1/2 teaspoon vanilla extract
- 1/2 cup sliced strawberries
- 2 tablespoons unsweetened shredded coconut
- Optional toppings: additional sliced strawberries



Instructions:

1. In a mixing bowl or jar, combine the chia seeds, coconut milk, stevia or erythritol, and vanilla extract. Stir well to combine.
2. Add the sliced strawberries and shredded coconut to the mixture. Stir gently to distribute them evenly.
3. Let the mixture sit for a few minutes, then stir again to prevent clumping.
4. Cover the bowl or jar and refrigerate for at least 2 hours, or preferably overnight, to allow the chia seeds to thicken and absorb the liquid.
5. After the pudding has set, give it a good stir to break up any clumps and ensure a smooth consistency.
6. Serve the Coconut Strawberry Chia Pudding chilled.

DIABETES-FRIENDLY

Sweet Treats

(III)

BAKED CINNAMON APPLE SLICES

Ingredients:

- 2 medium apples, cored and thinly sliced
- 1 tablespoon melted coconut oil or butter
- 1 teaspoon ground cinnamon
- 1-2 tablespoons natural sweetener (optional, depending on the sweetness of the apples)



Instructions:

1. Preheat the oven to 350°F (175°C).
2. In a mixing bowl, toss apple slices with melted coconut oil or butter, ground cinnamon, and sweetener (if using).
3. Arrange the apple slices in a single layer on a baking sheet lined with parchment paper.
4. Bake for 15-20 minutes, or until the apples are tender and slightly caramelized.
5. Serve warm as is or with a dollop of Greek yogurt or a sprinkle of chopped nuts for added protein and texture.

DIABETES-FRIENDLY

Sweet Treats

(IV)

STRAWBERRY-CHOCOLATE GREEK YOGURT BARK

Ingredients:

- 2 cups plain Greek yogurt (low-fat or non-fat)
- 1 tablespoon honey or maple syrup (optional)
- 1/2 teaspoon vanilla extract
- 1/4 cup dark chocolate chips or chopped dark chocolate (at least 70% cocoa)
- 1/4 cup sliced strawberries (or other berries of your choice)
- 1 tablespoon chopped nuts (such as almonds, walnuts, or pistachios) (optional)



Instructions:

1. In a mixing bowl, combine the Greek yogurt, honey or maple syrup (if using), and vanilla extract. Stir until well combined.
2. Line a baking sheet with parchment paper or a silicone baking mat.
3. Spread the Greek yogurt mixture evenly onto the prepared baking sheet, forming a rectangular shape about 1/4 inch thick.
4. Sprinkle the dark chocolate chips or chopped dark chocolate evenly over the Greek yogurt layer.
5. Scatter the sliced strawberries (or other berries) over the chocolate layer. If desired, sprinkle chopped nuts on top for added crunch.
6. Place the baking sheet in the freezer and freeze for at least 2-3 hours, or until the yogurt bark is firm and set.
7. Once frozen, remove the yogurt bark from the freezer and break it into pieces using your hands or a knife.

DIABETES-FRIENDLY

Sweet Treats

(V)

APPLE-OATMEAL COOKIES

Ingredients:

- 1 cup old-fashioned oats
- 1/2 cup whole wheat flour
- 1/4 cup almond flour or ground almonds
- 1 teaspoon ground cinnamon
- 1/2 teaspoon baking powder
- 1/4 teaspoon salt
- 1/4 cup unsweetened applesauce
- 2 tablespoons honey or maple syrup
- 1 tablespoon coconut oil, melted
- 1/2 teaspoon vanilla extract
- 1 small apple, peeled, cored, and finely chopped (about 1/2 cup)
- 1/4 cup chopped nuts (such as walnuts or almonds) (optional)



Instructions:

1. Preheat your oven to 350°F (175°C). Line a baking sheet with parchment paper or lightly grease it with cooking spray.
2. In a large mixing bowl, combine the old-fashioned oats, whole wheat flour, almond flour, ground cinnamon, baking powder, and salt.
3. In a separate bowl, whisk the unsweetened applesauce, honey or maple syrup, melted coconut oil, and vanilla extract until smooth.
4. Pour the wet ingredients into the dry ingredients and mix until a dough forms.
5. Fold in the chopped apple and chopped nuts.
6. Using a spoon or cookie scoop, drop spoonfuls of the dough onto the prepared baking sheet. Use the back of the spoon to flatten each cookie slightly.
7. Bake for 12-15 minutes, or until the cookies are lightly golden brown around the edges.
8. Remove the cookies from the oven and let them cool.

DIABETES-FRIENDLY

Drink

(I)

GREEN SMOOTHIE

Ingredients:

- 1 cup spinach or kale (fresh or frozen)
- 1/2 cucumber, peeled and chopped
- 1/2 green apple, cored and chopped
- 1/4 avocado, peeled and pitted
- 1/2 cup unsweetened almond milk or coconut water
- Juice of 1/2 lemon
- Ice cubes (optional)



Instructions:

1. Place all ingredients in a blender.
2. Blend until smooth and creamy.
3. Taste and adjust sweetness if necessary by adding a small amount of stevia or honey, if desired.
4. Pour into glasses and enjoy immediately.

DIABETES-FRIENDLY

Drink

(II)

BERRY-LEMON ICED TEA

Ingredients:

- 2 cups brewed green tea, chilled
- 1/2 cup mixed berries (such as strawberries, raspberries, and blueberries)
- Juice of 1 lemon
- 1-2 tablespoons honey or stevia (optional, adjust to taste)
- Ice cubes
- Fresh mint leaves for garnish (optional)



Instructions:

1. In a blender, combine the chilled green tea, mixed berries, lemon juice, and honey or stevia (if using).
2. Blend until smooth.
3. Taste and adjust sweetness if necessary.
4. Fill glasses with ice cubes.
5. Pour the berry-lemon mixture over the ice.
6. Garnish with fresh mint leaves, if desired.
7. Stir gently and serve immediately.

DIABETES-FRIENDLY

Drink

(III)

CUCUMBER-LIME SPARKLER

Ingredients:

- 1/2 cucumber, sliced
- Juice of 2 limes
- 2 cups sparkling water
- 1-2 tablespoons honey or stevia (optional, adjust to taste)
- Ice cubes
- Fresh mint leaves for garnish (optional)



Instructions:

1. In a pitcher, combine the sliced cucumber, lime juice, and honey or stevia (if using).
2. Stir well to combine and let it sit for a few minutes to infuse the flavors.
3. Fill glasses with ice cubes.
4. Pour the cucumber-lime mixture into each glass, dividing evenly.
5. Top off each glass with sparkling water.
6. Garnish with fresh mint leaves, if desired.
7. Stir gently and serve immediately.

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