

Diabetes Self-Care Guide



2023 VA/DoD Clinical Practice
Guideline for the Management
of Type 2 Diabetes Mellitus



Using this Guide

Information provided in this electronic file is for educational or informational purposes only and should not be considered a substitute for professional medical advice or consultation with healthcare professionals.

You can click on the links below to jump to any section.

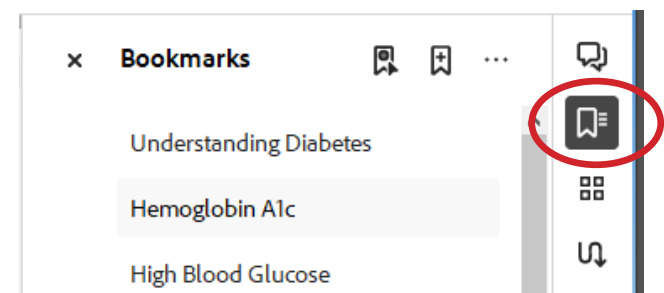
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Technololgy Tip

This file is in a PDF (Portable document format) and can be opened and read by any PDF application.

Using the “bookmarks” feature will allow you to see all of the pages and be able to click on any section to go to that page.



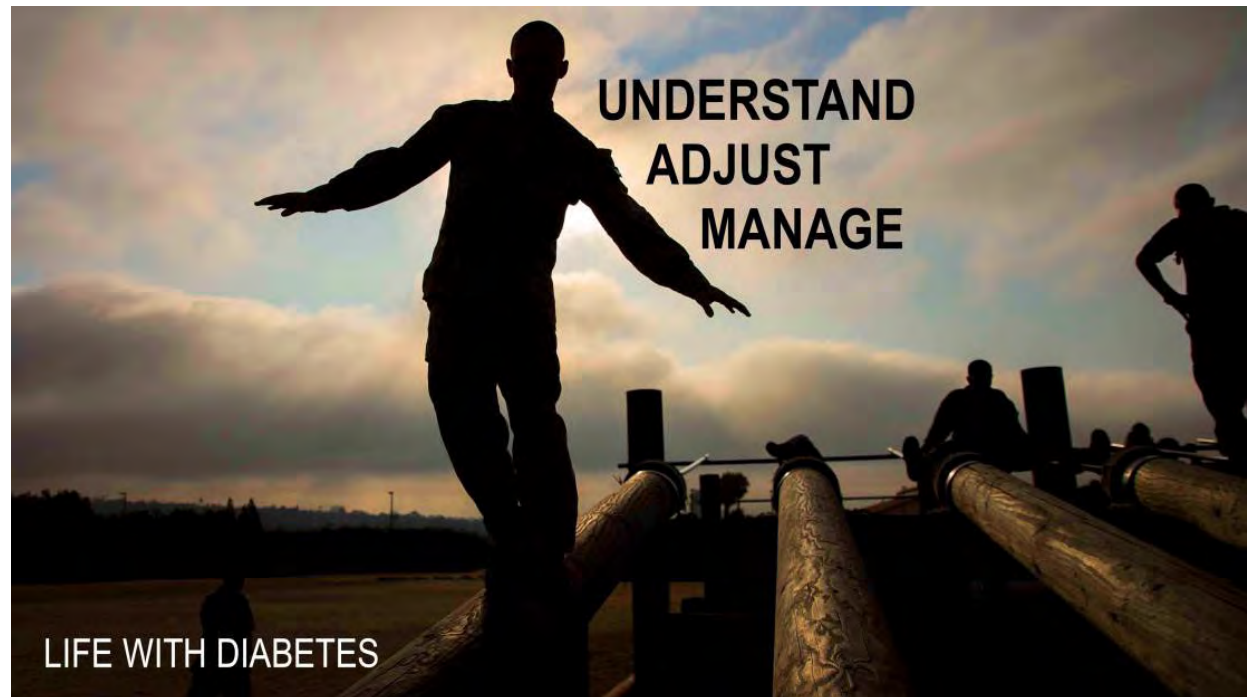
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Diabetes in a Nutshell

Finding Your Balance

- Understanding your diabetes, glucose and nutrition goals, along with medication options are the best ways to manage your health.
- Taking care of your diabetes is a journey of change and adjustment.
- Managing and utilizing self-care behaviors will lower the risk of diabetes problems.



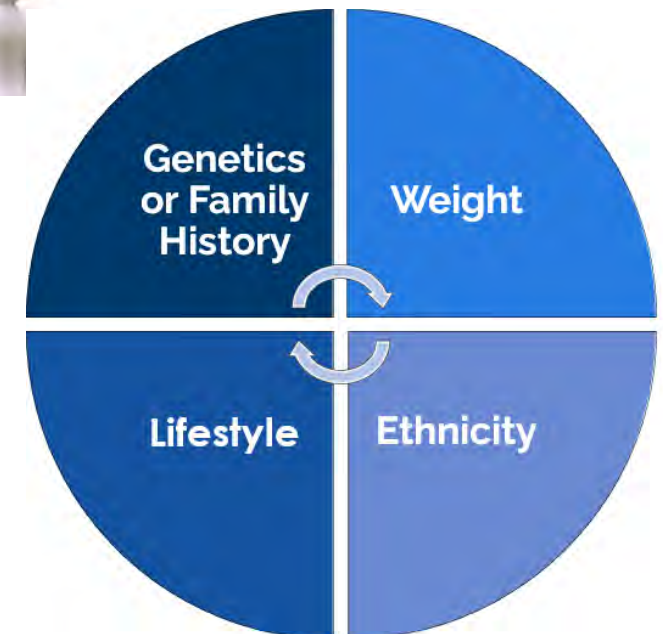
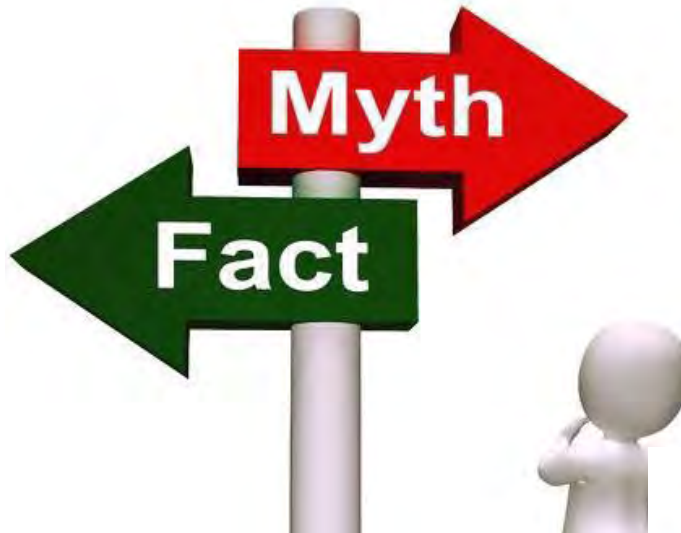
Diabetes Causes

Do you know...

**diabetes is NOT caused
by eating too much
sugar?**

For your information

It is caused by a number
of factors like family
genetics, weight, lifestyle,
and ethnicity.



Understanding Diabetes

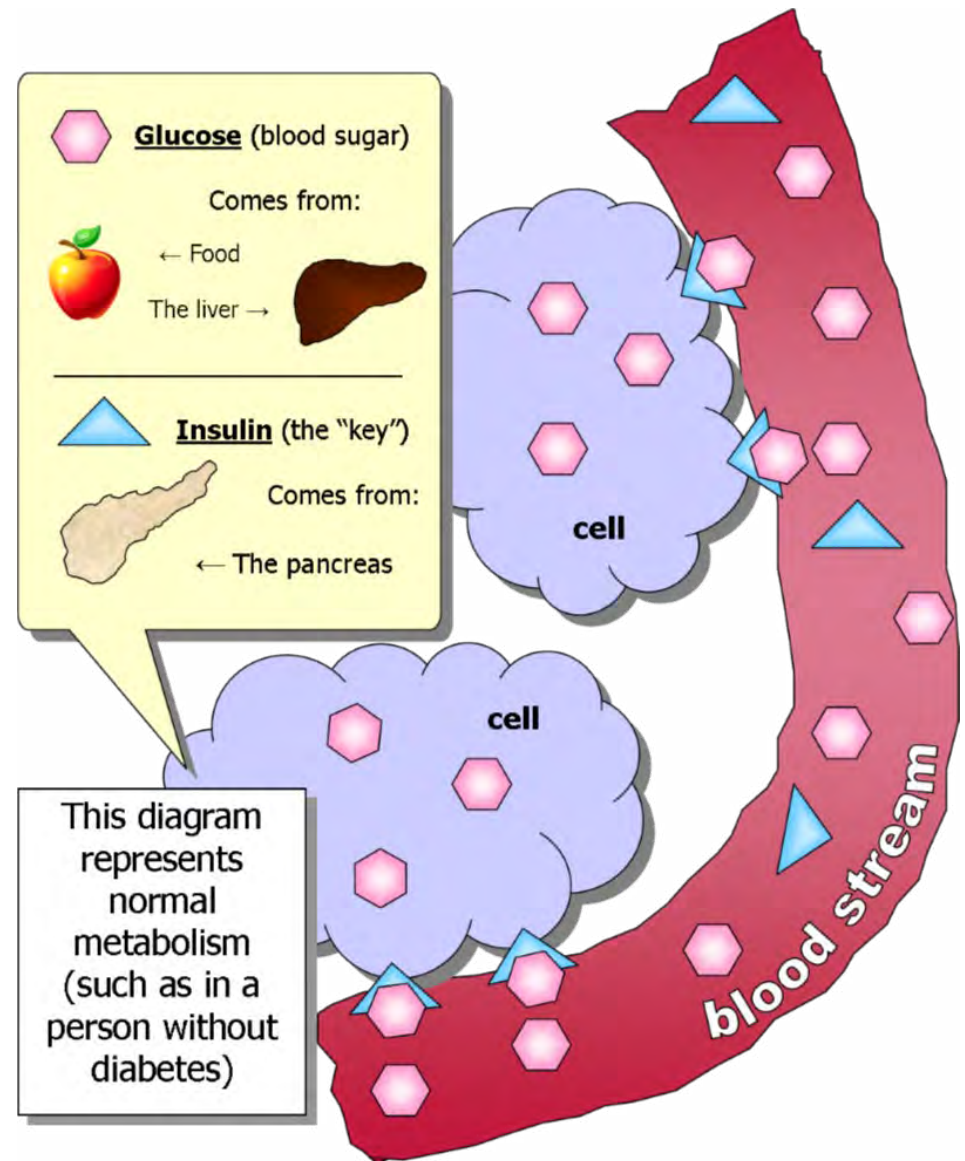
How the body normally absorbs blood glucose

Do you know...

glucose is a simple form of sugar that is used to fuel the body?

For your information

1. The stomach changes food into glucose.
2. Liver also releases glucose into the bloodstream.
3. Glucose enters the bloodstream.
4. The pancreas makes insulin.
5. Insulin enters the bloodstream and acts like a key allowing glucose to enter your cells.
6. In diabetes, the blood glucose level is too high either because the pancreas is not making enough insulin, or the insulin that is being made is not working correctly. Sometimes it is a combination of both.



What is Diabetes?

It is a chronic (continuing) condition

Do you know...

there are different “types” of diabetes?

- Type 1: is insulin dependent
- Type 2: may require insulin
- Gestational: during pregnancy
- Other rare conditions

For your information

The key to diabetes control is to have a good understanding of what affects your blood glucose levels.

- Some important tools for managing your diabetes.
 - Diabetes education.
 - Making up your mind to do this.
 - Good support from family and your healthcare team.
 - Learning what you can do is the first step in controlling your diabetes.

For your information

- A person may be able to **diet and exercise** to keep their blood glucose levels within target range.
- It may also be necessary to take **oral medication** to help the body’s own insulin work better.
- Sometimes, they may also need to **take insulin** to control type 2 diabetes if the body is not making enough.
- If **blood glucose** is not well controlled, it can cause health problems all over the body, such as damage to the nerves, kidneys, heart, feet, eyes, and teeth.
 - The good news is that complications can often be prevented, delayed, or lessened, with **good control**.

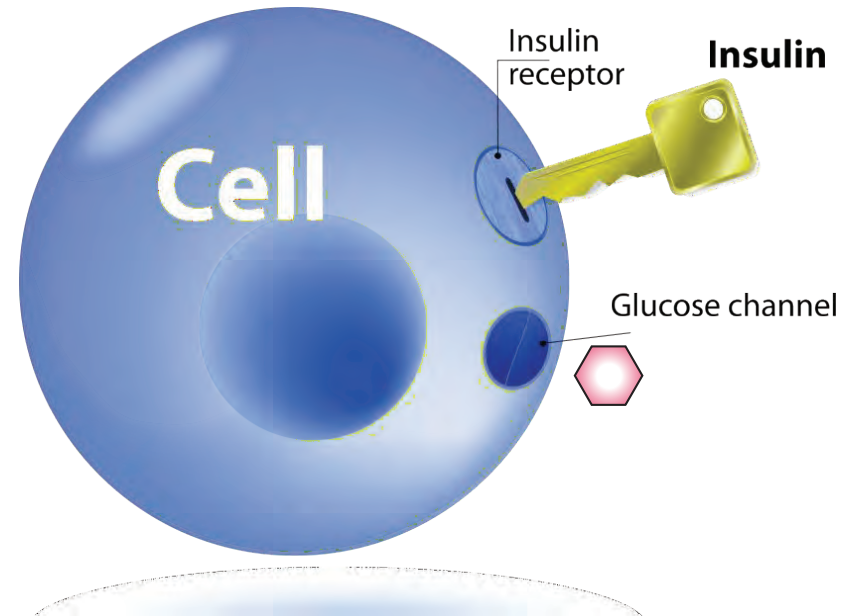
How does insulin work?

Do you know...

insulin is the “key” that unlocks the cell to allow glucose to enter?

For your information

- Insulin resistance occurs when the receptor is faulty.
- There are different kinds of insulin. Some act over a full day and others give a quick burst to match what you are eating.
- Long-acting, or “basal” insulin (e.g., Lantus®), works all day long but is generally not enough to control blood glucose when you eat.
- Quick-acting insulin, or “bolus” insulin (e.g., NovoLog® or Regular), gets into your blood stream quickly and lasts for a few hours.
- Quick-acting insulin can also be used to quickly bring down high blood glucose, called “correction insulin”.



Hemoglobin A1c

HbA1c

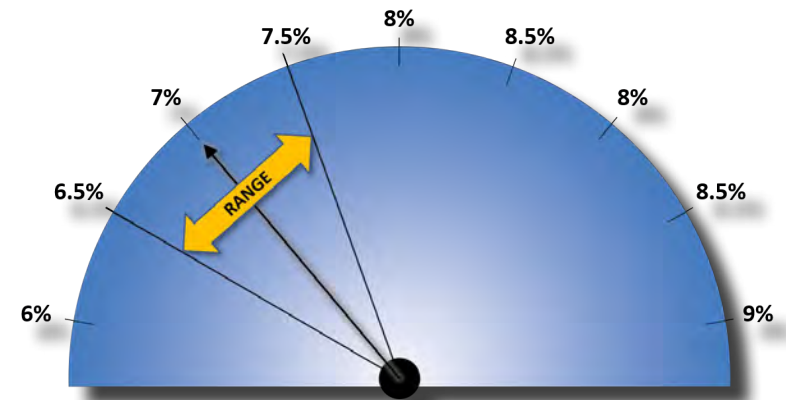
What you should know about the Hemoglobin A1c (HbA1c) test.

- **The HbA1c is a lab test that shows the average blood glucose over the past three months.**

- The results are not an exact number, but are in a range. They can be off one way or the other.
- Your real HbA1c could be lower or higher than what the lab test says.
- Every lab test has some amount of error.

HbA1c levels lab test results:

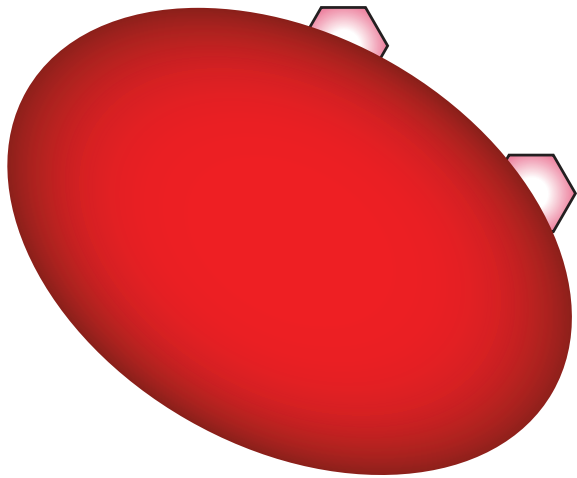
- Many labs use a test where the results can be plus or minus 0.5%.
- The test may say your result is 7.0%, but your real HbA1c could be anything between 6.5% and 7.5%.
- Most of the time, this amount of error is not that important.
- However, if you are at risk for low blood glucose (hypoglycemia), it is important to know that your glucose levels may be lower than what the HbA1c shows.



HbA1c is influenced by many factors including age, race, ethnicity, and anemia, or hemoglobinopathies which are a group of disorders passed down through families.

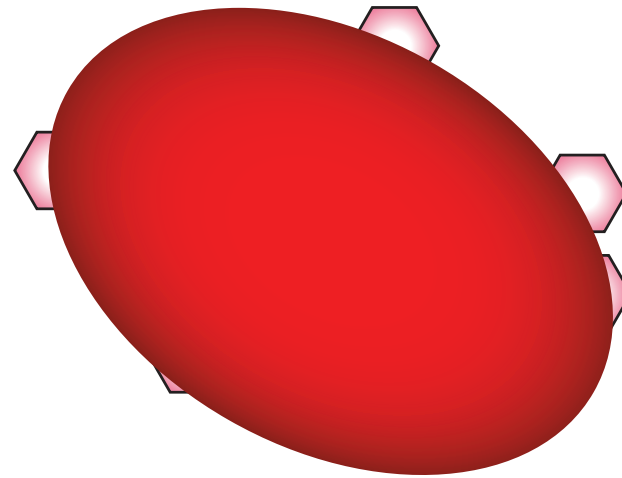
Red blood cells A1c number

Without Diabetes



Healthy red blood cells have some glucose attached to them.

With Diabetes



A high A1c means that too much glucose is attached to the cells.

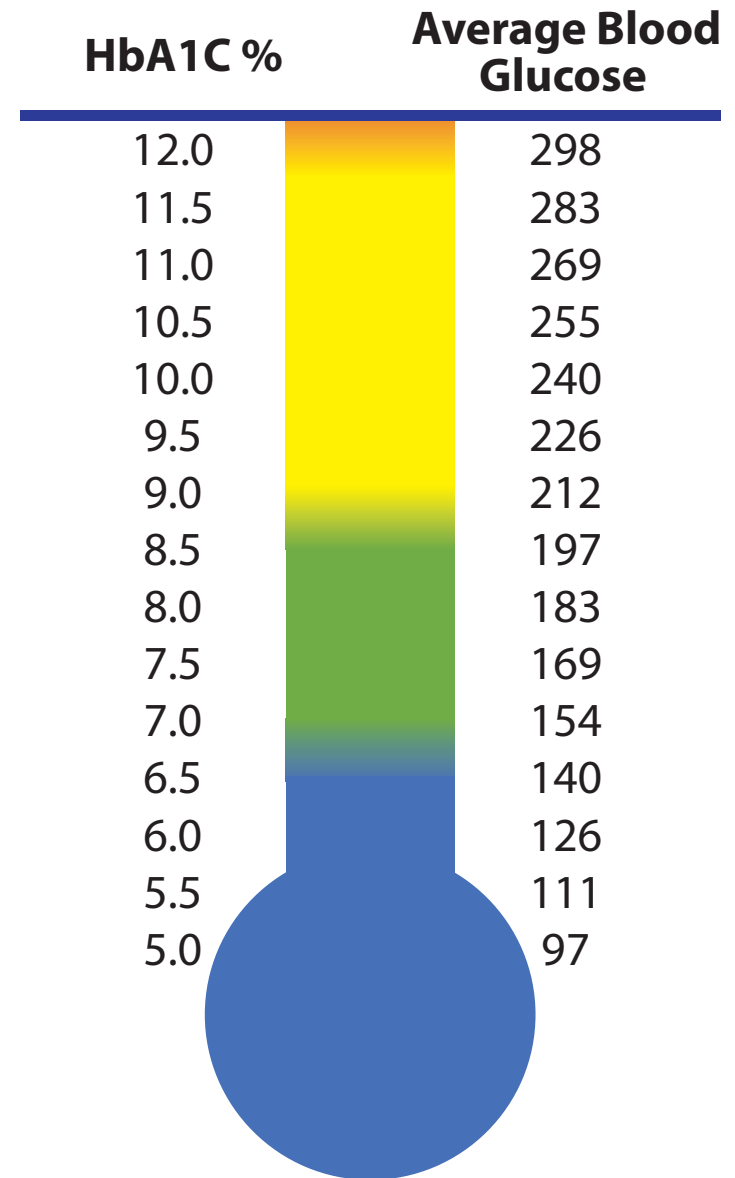
A1c Test

Do you know...

what the A1c test is and how the results are used?

For your information

- The A1c test shows the average amount of glucose in your blood over the last 3 months.
- The A1c test is a simple lab test ordered by your health care provider.
- The A1c is one of the best tests to find out if your blood glucose is under control.
- When you have Diabetes, knowing your A1c tells you about your risk for complications of Diabetes: blindness, kidney disease, amputation, heart attack, and stroke.
- You can improve your A1c through meal planning, movement, medication, monitoring, and managing stress.



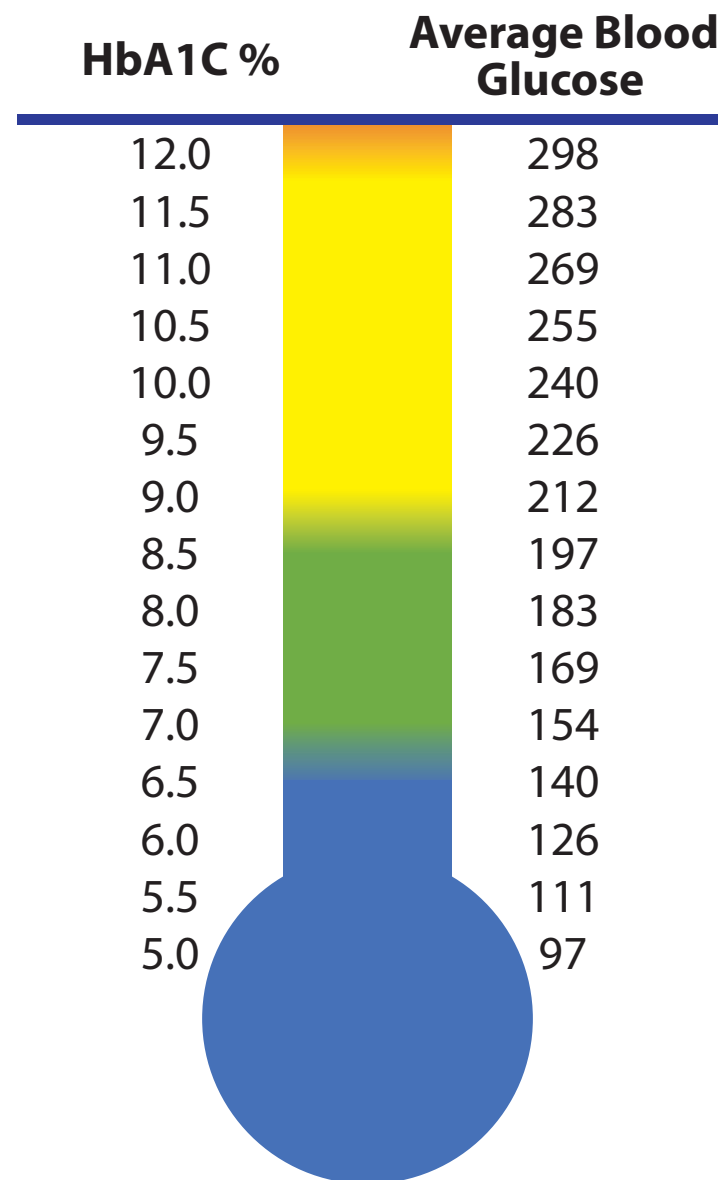
Know your A1c number

Do you know...

you and your healthcare provider will decide on your target HbA1c?

For your information

- It is important to make sure you and your healthcare provider both agree on your target to help avoid problems.
- Most patients should have an A1c goal range of 7% - 8.5%, if it can be safely achieved.
- Values closer to 9% should require an evaluation of your treatment, since blood glucose may be high enough to cause symptoms.



High Blood Glucose

Also known as hyperglycemia

Do you know...

high blood glucose means “too much glucose” in the blood”?

For your information

The causes of high blood glucose:

- Increased food intake (most common)
- Inactivity
- Medications
- Illness
- Stress



High Blood Glucose Prevention & Treatment

For your information

- To prevent and treat high blood glucose, take your diabetes medication correctly every day. *Your provider will tell you if your diabetes medication is the kind you can adjust at home on your own.*
- Exercising may help your blood glucose come down.
 - Your provider can give you more information on whether and when you should exercise to lower your blood glucose.
 - In cases of very high blood glucose, exercise may not be safe.
- Carbohydrates in foods will raise blood glucose.
 - If your pre-meal blood glucose is already high, eating fewer carbohydrates than you normally eat may help lower it.
- If you have high blood glucose that is not coming down, you need to check ketone levels.
 - You can measure ketone levels in the blood with certain meters, similar to how you check your blood glucose.

High Blood Glucose

Do you know...

if your blood glucose is higher than your target range, you may need adjustments in your medication, diet, activity level, or a combination of these factors?

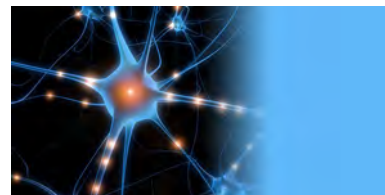
For your information

- If you notice a trend of high blood glucose, you should contact your provider.
- Illness, infection, and certain medications can also cause blood glucose to become too high.
 - This is because the stress of illness and infection make the liver **put extra glucose into your blood.**
- Other kinds of stress can also cause your blood glucose to go higher.
- If you think high blood glucose may be due to infection or illness, you need to **contact your provider right away.**



High Blood Glucose can lead to injuries to your:

- Eyes
- Kidneys
- Nerves
- Feet
- Heart
- Brain



Blood Glucose Target Range

Do you know...

How high is too high?
How to recognize high blood glucose?
What causes high blood glucose?
What to do about high blood glucose?

A1c Goal	≤ 7%	7-8%	8-9%
Fasting	80-130	90-150	100-180
After Meal	<180	N/A	N/A
Bedtime	90-150	100-180	110-200

For your information

- Hemoglobin A1c (HbA1c) reflects your average blood glucose over the past three months.
- Your healthcare provider will discuss the target range that works best for you.
- Your provider will tell you how often you should check your blood glucose.
- Checking before you drive can help ensure your blood glucose is safe (at least 100 mg/dL) to operate a car. When you are sick you may need to check more often. Also, test your blood glucose if you are experiencing symptoms because the symptoms of high and low blood glucose can be similar.

- If you take insulin, you may be instructed to check your blood glucose just before you take your insulin so that you can adjust your dose if needed.
- It is a good idea to check your blood glucose before you go to bed each night and first thing in the morning.
- Other times to test may include just before a meal and/or two hours after.

Low Blood Glucose

Do you know...

low blood glucose means “too little glucose in the blood”?

For your information

- Your provider will set your target ranges.
- Hypoglycemia is defined as blood glucose less than 70 mg/dL.
- Causes of low blood glucose:
 - Low blood glucose is caused when there is more insulin in the blood than needed to balance out the glucose.
 - This can be the result of too much of certain diabetes medications, not enough food (such as in skipping or delaying a meal) or greater-than-normal activity.
 - Other issues like illness or kidney problems may also cause low blood glucose.



Low Blood Glucose

Also known as hypoglycemia

Do you know...

the common signs and symptoms of low blood glucose?

For your information

- Sweating, shakiness, confusion, hunger, tiredness or weakness and even headache.
- It is important to identify your own personal signs and symptoms of hypoglycemia, since you may experience signs or symptoms besides those that have been named.
- If you feel strange in any way, **check your blood glucose.**



Low Blood Glucose Treatment

Do you know...

treatment for low blood glucose is based on the “Rule of 15”?

Rule
of **15**



3 to 4 ounces of juice is about 15 grams of carbohydrate

For your information

- **If your blood glucose is 55mg/dL - 70mg/dL:**
 - Eat or drink 15 grams of carbohydrates:
 - ½ cup/4 ounces of fruit juice or regular soda
 - 4 glucose tablets
 - 1 tube of glucose gel
 - 5 pieces hard candy or 5 jellybeans.
- **If your blood glucose is below 55mg/dL**
 - Eat or drink double the amount, 30 grams of carbohydrates:
 - 1 cup/8 ounces of fruit juice or regular soda
 - 8 glucose tablets
 - 2 tubes of glucose gel
 - 10 pieces hard candy or 10 jellybeans.
- **Wait 15 minutes and check your blood glucose again.**
- **Repeat the steps if your blood glucose is still less than 70 mg/dL.**
- **Check every 15 minutes until your blood glucose is within the goal range.**



Glucose tablets, liquids and gels provide a pre-measured 15 gram dose of carbohydrate

Low Blood Glucose Treatment

Do you know...

in extreme cases of hypoglycemia, it is possible to become unconscious?

For your information

- In such cases, family or friends should **not attempt to give you anything by mouth.**
- Use glucagon if prescribed by your provider.
 - Glucagon is a hormone.
 - Be sure to refill your prescription for glucagon if you do use it, to always have an emergency supply available.



Example Prescription Glucagon Inhaler



Example Prescription Glucagon Kit

Sick Day Rules

Home care

Do you know...

when you are ill, you should check your blood glucose more often, about every four hours, especially if you are not eating?



For your information

- Do not stop taking all your diabetes medication when you are sick, unless instructed to do so by your provider.
- Illness usually causes high blood glucose. Therefore, you will likely need all or part of your diabetes medication, even if you are not eating.
- People with Type 1 diabetes should never skip long-acting insulin even if not eating. Your provider may recommend a different dose, but skipping it all together can quickly lead to higher blood glucose.
- You need to contact your provider if you have a high fever, are vomiting, have diarrhea for more than a day, have changes in your vision, or experience any major change in how you feel.

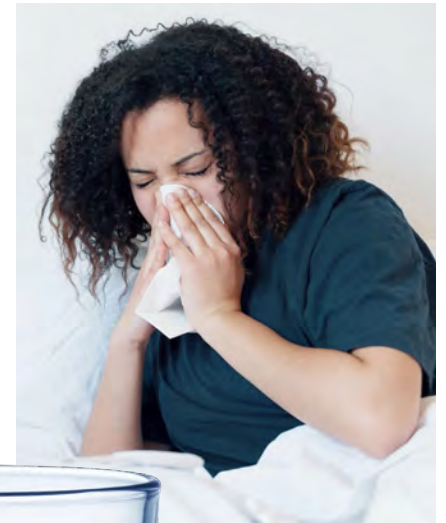
Sick Day Goals - Home Care

Do you know...

one of the most important goals when sick is to prevent dehydration?

For your information

- Signs that you may be dehydrated include dry mouth, thirst, decreased urination, very dark urine, dry flushed skin that does not snap back when pinched (called “tenting”).
- To prevent dehydration, take small sips of fluid every 10 to 15 minutes. You should drink a total of about 1 cup (8 oz.) of fluid per hour when you are sick.
- **If you are unable to keep any fluids down, have signs of dehydration, if you have any trouble breathing, or any change in your mental status, you should seek medical help immediately.**



Sick Day Rules

Do you know...

for repeated high blood glucose above 250 mg/dL, you may need to check urine or blood ketones?

For your information

- Ketones are an acid that is left over when the body burns fat instead of glucose. If there are ketones in the blood or urine, it means that the insulin is not working to convert glucose to energy in the cells.
- High ketone levels can make you very sick. You should call your provider if you have blood or urine ketones, especially if you have type 1 diabetes.
- **If you are unable to reach your provider and you have high blood glucose and high ketones, you should go to the emergency room.**

Do you know...

you need a Sick Day kit?

You should always have these supplies on hand.

1. Healthcare team phone number.
2. List of friends or family who can check on you.
3. Glucose monitoring equipment.
4. Thermometer.
5. Acetaminophen (if provider approved).
6. Decongestant (if provider approved).
7. Sugar-free throat lozenges.
8. Anti-diarrheal medicine (if provider approved).

Sick Day Plan

Do you know...

it is important to eat when you are sick?

For your information

- Use the chart here to know what to keep on hand to eat or drink when you are sick.
- If you are nauseous and do not feel like eating, you can substitute “sick day” food and drinks such as regular ginger ale, regular Jell-O®, Gatorade®, applesauce, crackers, yogurt, or popsicles.

What to Eat or Drink When You are Sick

(Each item equals 15 grams of carbohydrates)

Food Item	Amount
Fruit juice	1/2 cup (4 oz.)
Soda (not diet)	1/2 cup (4 oz.)
Jell-O®(not sugar free)	1/2 cup
Popsicle (not sugar free)	1/2 twin
Sherbet	1/4 cup
Saltine crackers	6 squares
Ice cream (vanilla)	1/2 cup
Pudding (sugar free)	1/4 cup
Pudding (not sugar free)	1/4 cup
Thin soup (vegetable, chicken noodle)	1/2 cup
Macaroni, noodles, rice	1/3 cup cooked
Toast	1 slice

When to Call 911

Do you know...

when you should call 911?

For your information

- Call 911:
 - If you have chest pain or shortness of breath.
 - If you have trouble breathing.
 - If you have swelling of your legs and hands.
 - If you have numbness or tingling in arms or hands, trouble walking, or stumbling.
 - If you are experiencing drowsiness or confusion, or can't think clearly.



If you go to the hospital or emergency room, immediately tell providers and nurses you have diabetes.

It is important to always carry or wear medical alert identification (such as wallet card, bracelet, or dog tags).

Key Points

Section 1

- Use the Rule of 15 when you have symptoms of low blood glucose.
- When you are sick, your blood glucose can be hard to manage. You may not be able to eat or drink as much as usual, which can affect blood glucose levels.
- One of the most important goals when sick is to prevent dehydration.
- Create a sick day plan so you are prepared!
- If you go to the hospital or emergency room, immediately tell providers and nurses you have diabetes.
- Always carry or wear medical alert identification (such as wallet card, bracelet, or dog tags).

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ABCs of Diabetes Monitoring

Do you know...

why people with diabetes are encouraged to “monitor” and what they should be monitoring?

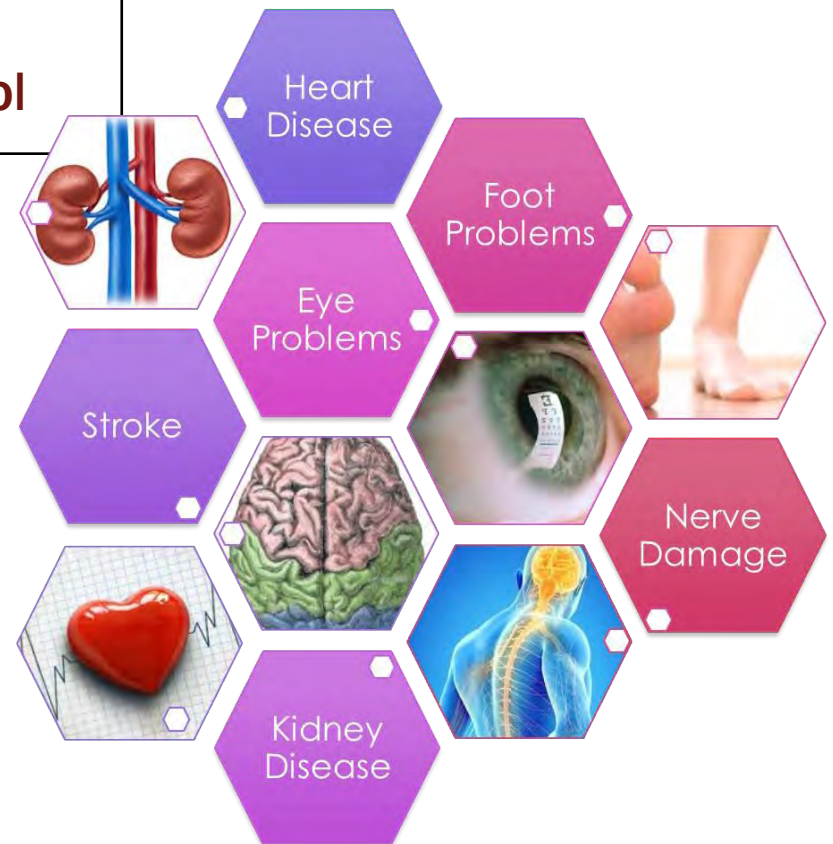
Management of A1c, blood pressure, and cholesterol is the goal!

- An A1c lower than 9% significantly decreases risk for complications!
- High blood pressure increases the risk of heart disease, stroke, kidney and eye disease, as well as other problems.
- Insulin plays a role in managing blood cholesterol, especially triglycerides.

A^{1c} levels

Blood pressure

Cholesterol



Monitoring Glucose

Checking blood glucose

Do you know...

it is important to check your blood glucose as directed so you will know if you are in your target range?

For your information

Your blood glucose levels are checked using a blood glucose meter. The results will tell you if your blood glucose is in good control or not.

Talk with your provider about:

- What is your safe target range of blood glucose.
- Why you need to check your blood glucose.
- How to check your blood glucose.
- When and how often to check.
- How to get supplies.



Monitoring Tips & Tricks

Do you know...

all meters require a small sample of blood?
Do you know where is the best place to get the blood from?

For your information

- The blood sample is easiest to obtain from the sides of your fingertips.
- Look at your meter instructions for alternative sites for blood sampling, such as the palm or forearm.
- Clean the site before checking blood glucose by using soap and water, then drying well. Rubbing your hands together while washing in warm water will improve blood flow and make sampling easier.
- Do not share your meter with anyone else.
- Change the lancet in your lancet device each time you test your blood glucose. Use a new test strip for each test.
- Record your numbers. Take your meter and log book with you each time you visit your healthcare provider.



Continuous Glucose Monitoring

Do you know...

what Continuous Glucose Monitoring (CGM) means?

For your information

- Continuous Glucose Monitoring (CGM) monitors your blood glucose every 1-5 minutes through a small sensor inserted under your skin.
- A transmitter sends blood glucose results to a device receiver or your smart phone giving you real-time updates.

There are different types of CGMs.

- Real-time CGM measures, stores, and alerts you continuously.
- Intermittently scanning CGM measures glucose levels continuously but requires scanning for storage of glucose values.

Do you need a CGM?

- Many people are checking blood glucose regularly with a blood glucose monitor and a finger stick check. CGM provides a continuous view of blood glucose.



Example of continuous glucose monitor type



Examples of device reader and smart phone display

CGM Interferences & Data

Do you know...

what interferes with CGM?

- There may be sensor interference and measurement errors due to several medications or substances.
- Refer to this list or go to diabetes.org to learn which medications or substances you take that might causes errors in the measurements.

Do you know...

CGM data can be shared with providers?

- Device readers allow for data sharing.
- Smart phone users will be offered/issued a data sharing link.

Do you know your provider may customize your high and low alerts?

- Your provider will work with you to get the most out of the results.

Medication	CGM Systems Affected	Effect
Acetaminophen more than 4 per day (> 1 gram every 6 hours in adults)	DEXCOM G6 or G7 Medtronic Guardian	Higher sensor reading than actual glucose
Ascorbic acid - Vitamin C	FreeStyle Libre	Higher sensor reading than actual glucose
Hydroxyurea	DEXCOM G6 or G7 Medtronic Guardian	Higher sensor reading than actual glucose
Mannitol (diuretic)	Senseonics Eversense	Sensor distortion within drug effectiveness ranges
Tetracycline	Senseonics Eversense	Sensor distortion within drug effectiveness ranges

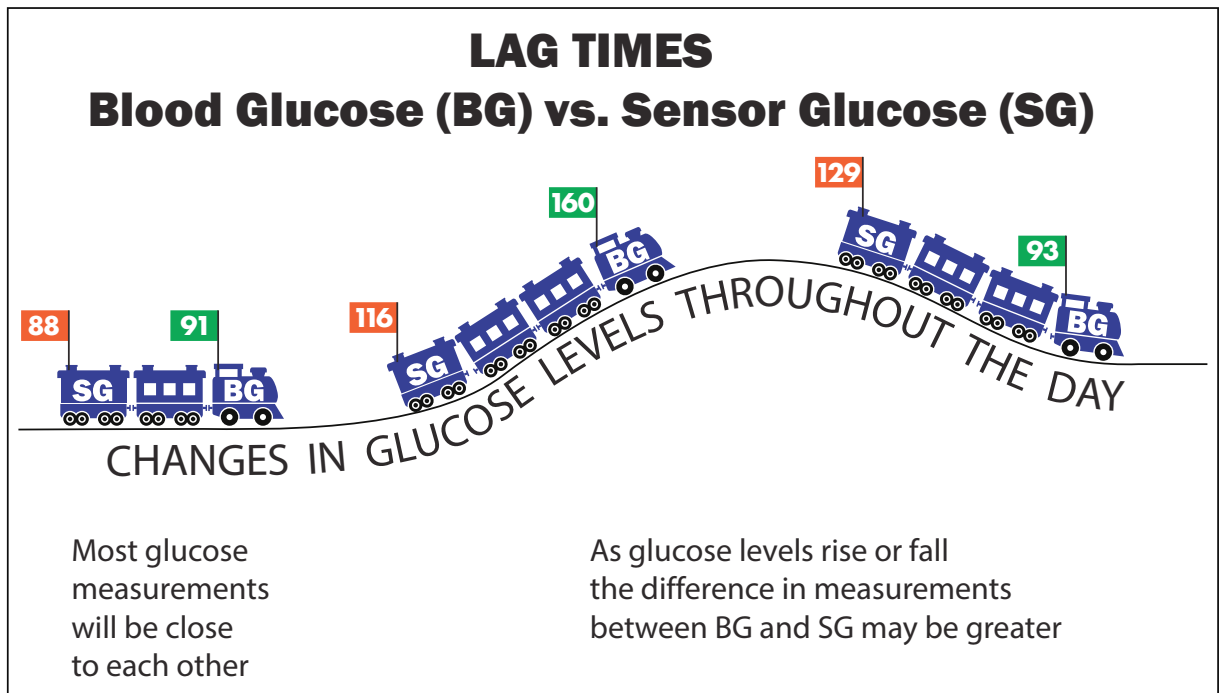
Finger Stick vs. CGM Lag Times

Do you know...

there may be “lag times” between the types of tests?

For your information

- Finger stick test measurements may not match the CGM measurements.
- Continuous Glucose Monitor measurements lag behind finger stick test.
- Confirm low blood glucose with finger stick test.



Replacements and technical support on the devices can be found by contacting the toll-free phone number found on the product insert, quick reference magnet, or your device.

Toll-free help lines (as of November 2023)

Abbott 855-632-8658	FreeStyle Libre 855-632-8658
Dexcom 888-738-3646	Medtronic Guardian 800-646-4633
Eversense 844-736-7348	Senseonics 800-348-8100

Blood Pressure (BP)

Monitoring

Do you know...

your blood pressure will be measured at every provider visit?

- It is recommended to have a blood pressure target goal close to less than 130/80 if it can be safely achieved.
- Talk to your provider about your situation.

Do you know...

you can monitor your blood pressure at home?

- Your provider may ask you to keep a record of your blood pressure measurements you take at home.

NORMAL/OPTIMAL

Below 120



Below 80



ELEVATED (PREHYPERTENSION)

120 - 139



80 - 89



HYPERTENSION

Above 140



Above 90



Lipids (Cholesterol)

Monitoring

For your information

- Your Provider will help find your specific targets.
- Lipids should be checked yearly or more often, if needed.

HDL

High Density Lipoproteins or “Healthy”

Improve with being active and eating monounsaturated fats

LDL

Low Density Lipoproteins or “Lousy”

Improve with eating less saturated fats and more fiber

TG

Triglycerides

Improve when blood glucose is maintained within targets and alcohol is limited

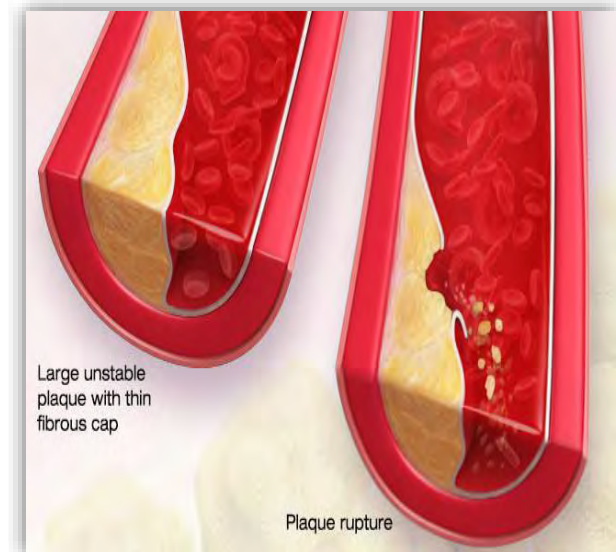
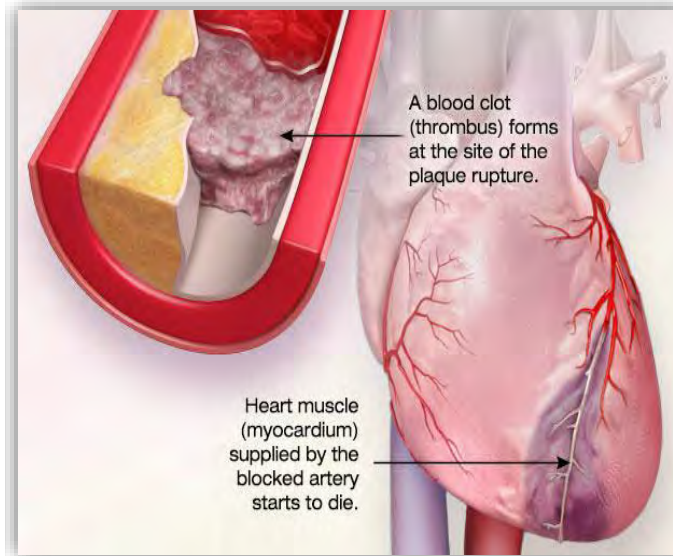
Lipids: Running Smoothly

Do you know...

because you have diabetes, you are at risk for heart disease?

For your information

- “Statin” therapy is advised.
- If you have diabetes and have had a heart attack, most Providers want to lower your LDL.
- Discuss with your Provider.



Kidneys

Testing

Do you know...

you should have your kidneys tested yearly or more if needed?

For your information

- Your kidneys are a special filter system for your body. They filter out waste products from the blood and can help control blood pressure.
- Microalbuminuria urine test checks for protein.
- Estimated glomerular filtration rate (eGFR) blood test measures kidney function.
- If abnormal, may improve with medications.
- Both tests should be done yearly or more often if needed.



Other Medical Care Guidance

Do you know...

diabetes can affect other medical issues?

For your information

It is important to maintain regular medical exams and keep up to date with your immunizations.

**Dental
Exams**

**Eye
Exams**

**Foot
Exams**

**Immuni-
zations**

Other

Monitoring Diabetes

Key Points

Section 2

- Having diabetes increases your risk for developing heart disease.
- Monitoring your A1c, BP, lipids, and kidney health is important.
- Keeping your numbers close to target ranges can help reduce your risk for diabetes complications.
- You and your Provider or healthcare team should discuss your A1c, blood pressure and lipid targets.
- Use the Rule of 15 when you have symptoms of low blood glucose.
- Have your kidneys and eyes tested every year.
- Reduce your diabetes risks by avoiding smoking.
- Take good care of your feet and get a foot exam every year.
- Eating healthy and exercise are important ways to help manage your diabetes.

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Diabetes and Stress

Do you know...

diabetes stress is the emotional response to living with diabetes?

- It's the relentless burden of daily self-management and living with the prospect of developing long term complications.
- Managing a complex and demanding chronic disease like diabetes can be stressful and result in emotional distress.

Do you know...

identifying and addressing the sources of stress can help reduce the burden of managing your diabetes?

Sources of Stress

- Feeling powerless
- Negative social perceptions of diabetes
- Access to healthcare and Provider stress
- Family and friends (Interpersonal issues)
- Work/Management demands
- Frustration with self-care
- Medication and glucose monitoring
- Eating stress (the food police)
- Hypoglycemia
- Long-term health complications



What is Healthy Coping?

Do you know...

what healthy coping means and how it can help you?

For your information

- A healthy attitude will help towards managing your diabetes.
- Using tools will aid in managing your diabetes with confidence.
- Positive relationships with others will help with coping.

Here are some coping strategies to use:

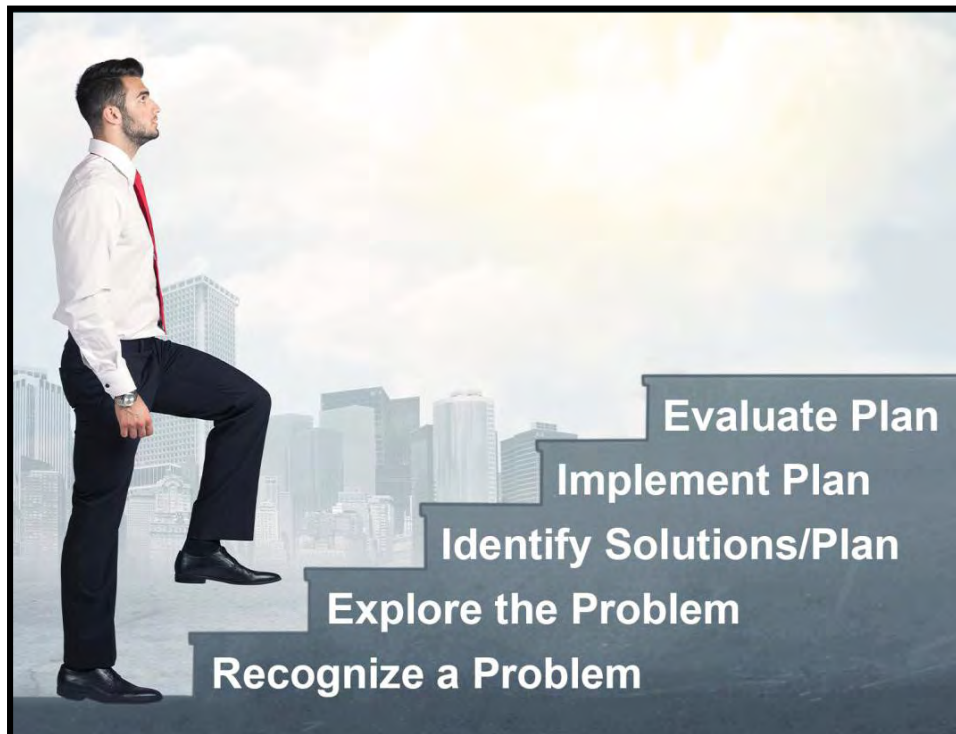
- Pay attention to your feelings.
- Do things you enjoy.
- Maintain a positive self image while dealing with challenging life events.
- Talk with family and friends and allow them to help.
- Allow yourself to be imperfect.
- Talk with your Provider or healthcare team about your feelings, negative reactions others have about your diabetes, your financial concerns, and food insecurity issues.



Problem Solving Steps

Do you know...

how to make a plan to resolve problems?



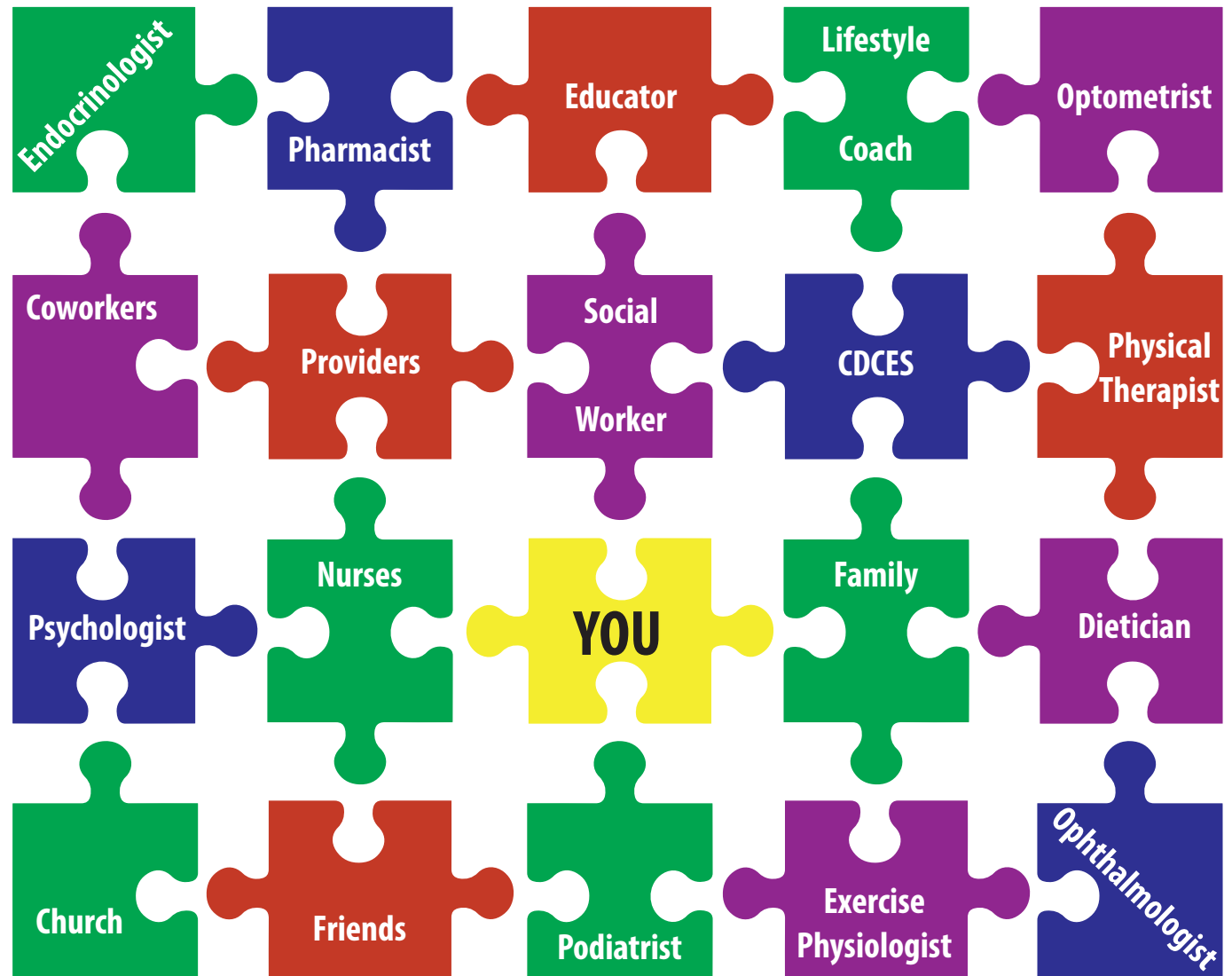
For your information

- Recognize a Problem
 - Acknowledge that a problem exists.
 - Identify the cause of the problem.
- Explore the Problem
 - Ask, "Is it really my problem?"
 - Ask, "Can I really do something about the problem?"
 - Try looking at the problem in a different way.
 - Get more information about the problem.
 - Try breaking the problem down into smaller pieces.
- Identify Ways to Solve the Problem
 - Look at all possible solutions/outcomes.
 - Weigh consequences, advantages, disadvantages.
 - Select the best approach.
 - Plan strategy, set goals/objectives.
- Implement the Plan
- Evaluate the Plan
 - Was it successful? If not, what went wrong?
 - What else might work?

Diabetes Care & Support Team

For your information

- It takes a team to manage diabetes.
- You are the **key** member of the team!
- You should speak up and share your needs and expectations with your healthcare team.
- You and your provider should consider the pros and cons before you decide which treatment would be best for you.



What is Shared Decision Making?



SHARE Approach

It is important to understand that you are the one who manages your diabetes with the support of your healthcare team. Your provider should talk with you to figure out the best tools to help you manage your blood glucose. They may suggest lifestyle changes like diet and exercise or to take medications.

Use the S.H.A.R.E. Approach with your provider to make decisions about your diabetes.

S

S: Your provider should **Seek** your participation. Your role is to **Speak up** so your provider is aware of your personal needs, perspectives, and willingness to manage your diabetes.

H

H: Your provider should **Help** you explore and compare treatment options. Your role is to **Hear** what choices there are for managing your diabetes. Ask questions, look at the pros and cons of each recommendation. Consider the cost, the time or effort to accomplish the tasks, and your willingness to do it.

A

A: Your provider should **Assess** your values and preferences. Your role is to **Assert** your preferences. Let them know what is important to you. Talk about how you feel about your likes and dislikes, what you are willing to try, how much you can take on, and what your priorities are. Keep an open mind as you discuss treatment options and be willing to try what may work for you.

R

R: You and your provider should **Reach** a decision. Figure out together what treatment options to try and make a plan. The plan should not only include what you will be doing, but what tools (medications, meter, etc.) you will need, and how long you should try the treatment.

E

E: You and your provider should **Evaluate** if the plan works. Keep track of your progress, check your blood glucose (as agreed with your provider), and follow-up with your provider on a regular basis to see if your plan worked or if you may need to try something different.

Why Shared Decision Making is Important



Do you know...

when shared decision making is especially important?

- There is more than one reasonable option, such as for screening or a treatment decision.
- No one option has a clear advantage.
- The possible benefits and harms of each option affect patients differently.

Do you know...

what Providers say about the value of Shared Decision Making?

- No one option has a clear advantage.
- Patients are more knowledgeable and better prepared for dialogue.
- Helps the patient understand what we are trying to do.
- Builds a lasting and trusting relationship.
- Both providers and patients are very satisfied.

Shared Decision Making Benefits

Do you know...

the benefits when patients engage in Shared Decision Making?

For your information

- They learn about their health and understand their health conditions.
- They recognize that a decision needs to be made and are informed about the options.
- They understand the pros and cons of different options.
- They have the information and tools needed to evaluate their options.
- They are better prepared to talk with their healthcare provider.
- They collaborate with their healthcare team to make a decision right for them.
- They are more likely to follow through on their decisions.



Key Roles and Responsibilities

Do you know...

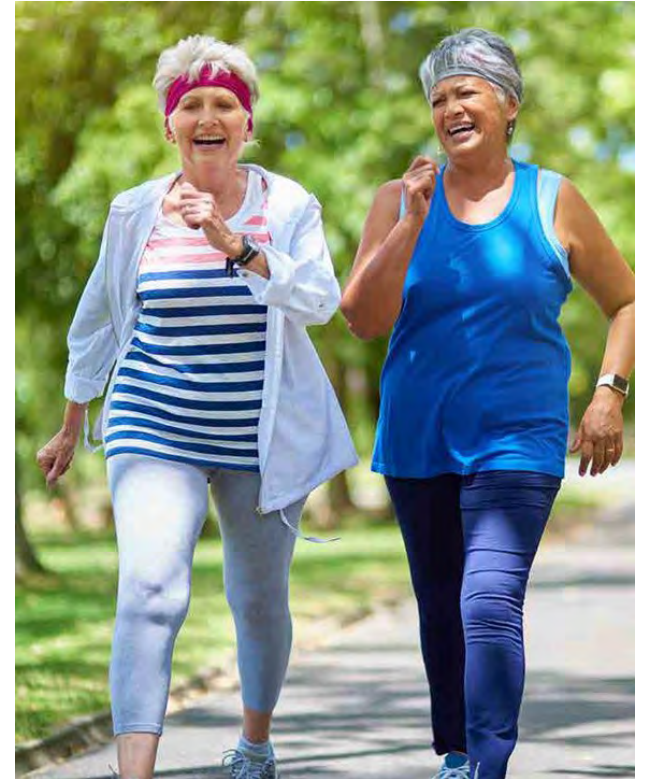
you might seek to partner with your provider or Healthcare Team and discuss each other's roles and responsibilities.

Shared Decision-Making agreements can center around three types of activities:

1. Sharing Information
2. Decision Making
3. Responsibility for Care

Know Your Options

- Knowing what questions to ask and how to best prepare for your healthcare appointments is important (write them down).
 - What are my treatment options?
 - What are the benefits and risks?
 - Where can I find more information to help me decide?



Goal Setting

Do you know...
how to approach goal setting?

For your information

- Setting goals are an important aspect of self-care.
- Both long and short-term goals need to be chosen.
- You may need some help setting goals.
- Goals may need to be adjusted from time to time.
- Goals should be YOUR goals, not your provider's goals.
- Work on one goal at a time.
- Goals should be SMART.

S

SPECIFIC

What do you expect to have happen?

M

MEASURABLE

How will you know you are making progress?

Use concrete measuring tools.

A

ACHIEVABLE

Between you and your provider or healthcare team.

R

RELEVANT

Is this goal important to you personally?

T

TIME-RELATED

Are you tracking how much time is scheduled to work on it?

Healthy Coping

Key Points

Section 3

- Talk to your healthcare team if you are experiencing stress and feeling overwhelmed.
- Diabetes self management is challenging but worthwhile.
- Healthy coping requires both problem solving and managing stress.
- Shared decision making is a two way street. It involves YOU and your healthcare team or Provider.
- Diabetes stress is a real concern. Recognizing the symptoms and knowing how to find support is important.
- Keep working on your SMART goals and tracking your progress.

Section 4: Diabetes Medications

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Diabetes Medications

Do you know...

your provider may prescribe medications to help you manage your diabetes?

For your information

There are many types of diabetes medications.

- Different medications work in different ways.
- Medications are grouped in “classes” according to how they lower blood glucose in the body.
- Medications come in different forms.
 - Oral medications are taken by mouth.
 - Injectable medications are injected into the body.
- Your provider may prescribe Insulin or a non-insulin medication.
- Multiple medications may be required to treat your diabetes.
- Medications work best with a healthy eating and staying active.



Taking Medications

Do you know...

to be aware of the possible diabetes medication side effects?

Do you know...

certain medications may not be appropriate for all patients?

For your information

- You should learn about the possible side effects of your diabetes medication, possible interactions with foods, interactions with and other medications.
- If low blood glucose is a possible side effect, be sure that you time your meals and medication appropriately.
- If you notice that you experience high blood glucose more than one time, notify your provider as you may need a different medication or dose.
- If you do experience negative side effects, talk to your provider. There may be a better medication option for you.

For your information

- Let your provider know about any medical conditions you have.
 - Kidney
 - Liver
 - Heart problems.
- Talk to your provider about other medications you are taking so they can select a diabetes medication that will not interfere with your other medications.

Medication Safety

Do you know...

about proper storage of your medications?

- Read the labels and information sheets for each medication to learn how to store the medication properly.

Do you know...

medications can expire?

- Read the labels on your medications to find when the medications expire.
- If they expire, find out about the laws in your state for safe disposal of medication, needles or other medical supplies.

Do you know...

what to do if you miss a diabetes medication dose?

- Keep a current list of your medications, dosage, and schedule. Know what to do if you miss a dose.
- Do NOT stop medication without talking to your Provider. Do not change your dose or skip medication without checking in with your provider.
- Use a “reminder” system to help you to remember to take your medication at the correct times (pill organizer, calendar, checklist, alert or alarm on your mobile device).
- To prevent running out of your medication, have a plan to get refills. Many pharmacies will deliver your medication or call you to remind you when it is time for a refill.



Biguanide

Oral diabetes medication

How Biguanide works in the body.

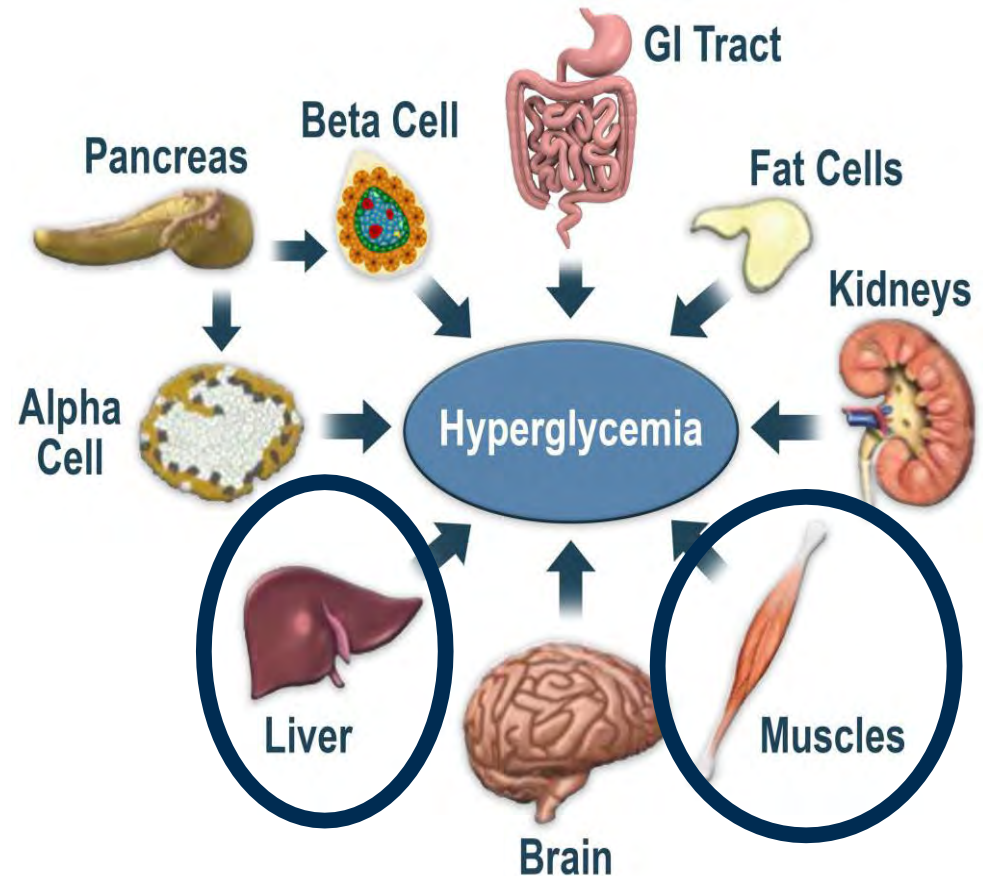
- It decreases glucose released from the liver.
- It reduces cardiac risks.
- It makes tissue more sensitive to insulin.

There are some possible side effects:

- Nausea
- Flatulence
- Diarrhea

TIPS on taking this medicine:

- Take with food to reduce side effects.
- Begin with lower dose and increase slowly.
- Talk to your Provider if having a test with contrast dye.



SGLT2 Inhibitors

Oral prescription medicine for use with diet and exercise to lower blood glucose

How SGLT2 inhibitors work in the body.

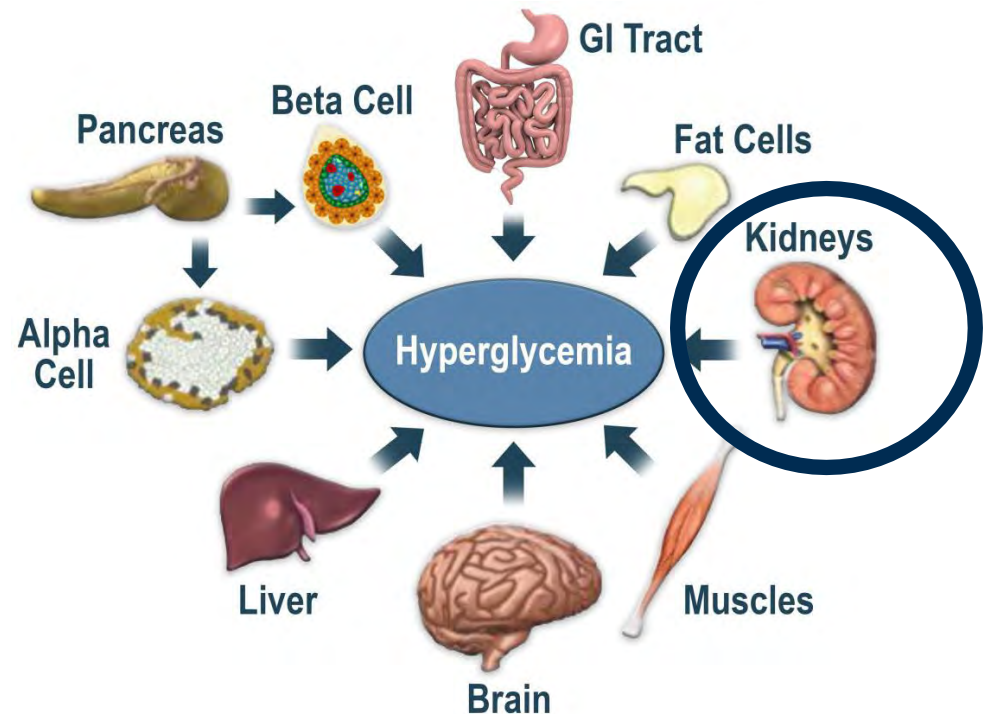
- They block reabsorption of glucose from the kidney.
- They protect the heart and kidney.

There are some possible side effects:

- Urinary tract/yeast infections
- Weight loss
- Lowers blood pressure
- Increases urination

TIPS on taking this medicine:

- Drink plenty of water.
- Do **NOT** follow a ketogenic diet.



Incretins: DPP4 Inhibitors

Oral medication

How Incretins: DPP4 Inhibitors work in the body.

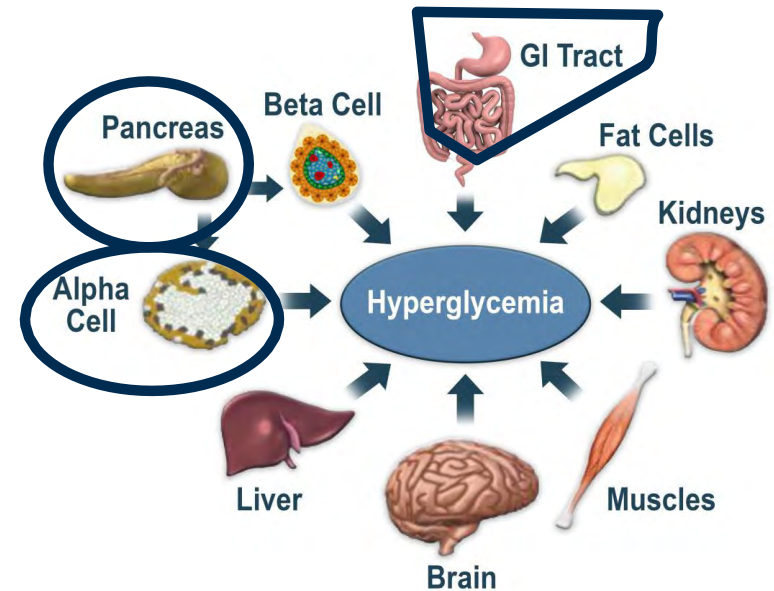
- They increase insulin production.
- They help with mealtime blood glucose.
- They decrease glucagon (glucose made in the body).

There are some possible side effects:

- Joint pain (very rare)
- Flu like symptoms
- Skin reaction/rash
- Nausea and diarrhea

TIPS for taking this medication:

- May be taken with or without food.
- Safe to use in combination with other medications.
- Considered weight neutral or may promote weight loss.



Sulfonylureas

Oral medications

How sulfonylureas work in the body.

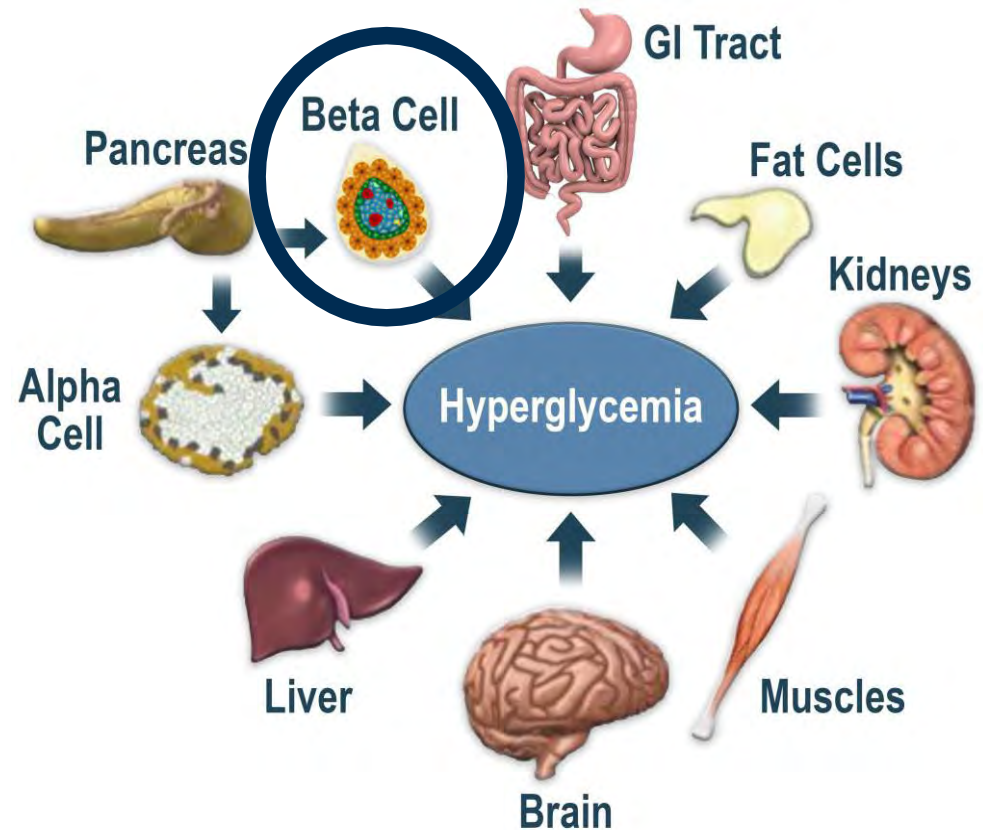
- They help the pancreas make and release more insulin.
- They help lower after meal glucose.

There are some possible side effects:

- Hypoglycemia (low blood glucose).
- Weight gain.

TIPS for taking this medicine:

- Take up to 30 minutes before eating.
- Discuss with your Provider or Pharmacist what to do if you miss a meal.
- Do not take at bedtime.



Thiazolidinediones (TZD)

Oral medication

How TZD works in the body.

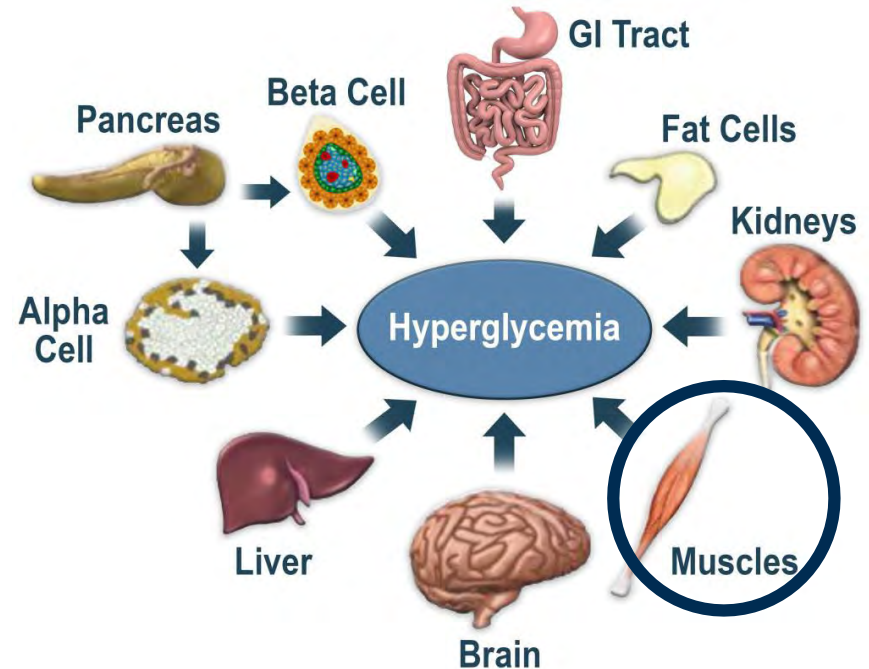
- TZD makes tissue more sensitive to insulin.
- It stops the body from making too much glucose.

There are some possible side effects:

- Swelling of legs, edema.
- Weight gain.
- Heart failure.
- Risk of bone fracture.

TIPS for taking this medicine:

- Benefits those with non-alcoholic fatty liver disease.
- May take up to 12 weeks to see glucose decreases.
- Not usually recommended for those with cirrhosis or heart disease.



Incretins: GLP-1 Agonists

How incretins: GLP-1 Agonists work in the body.

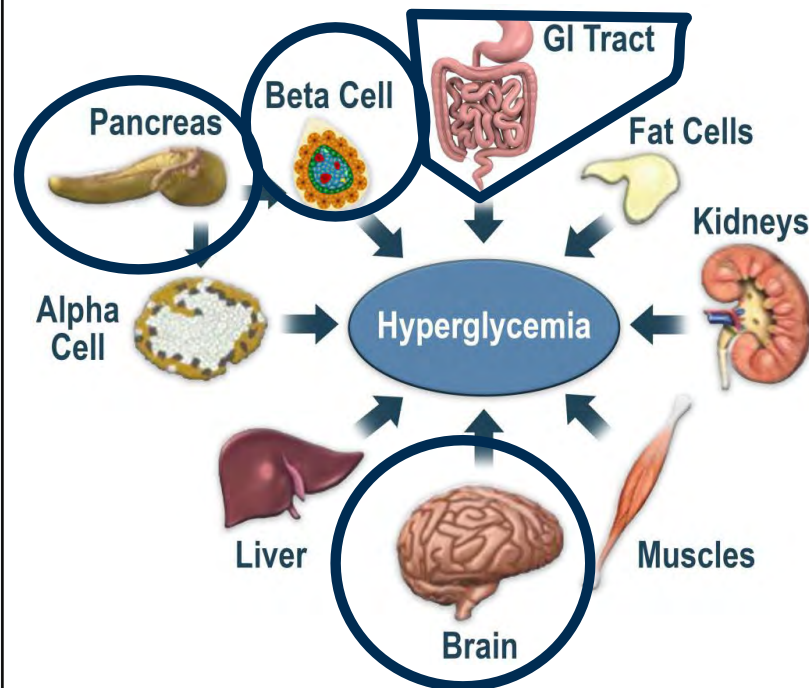
- They are an injectable medication: glucagon-like peptide 1 (GLP-1) receptor agonist.
- They tell the body to make more insulin for meals.
- They stop the body from making too much glucose.
- They slow stomach emptying, especially fatty foods.

There are some possible side effects:

- Nausea
- Vomiting
- Injection site redness or pain.

TIPS for taking this medicine:

- Stop eating when full.
- Nausea and vomiting usually caused by overeating.



Insulin

Do you know...

there are different kinds of insulin?

For your information

- There are different kinds of insulin. Some act over a full day and others give a quick burst to match what you are eating.
- Long-acting insulin (e.g., Lantus®) works all day long but is generally not enough to control blood glucose when you eat.
 - Therefore, you usually do not skip this insulin if you have to skip a meal.
 - Long-acting insulin should be taken at the **same time every day**.
- Quick-acting insulin (e.g., NovoLog® or Regular) gets into your blood stream quickly and lasts for a few hours.
 - It is a good match for mealtimes.
 - Take NovoLog® 5-15 minutes before your meal or take Regular 30 minutes before.
 - If you skip or delay a meal, you should skip or delay your quick-acting insulin as well.
- Quick-acting insulin can also be used to quickly bring down high blood glucose, called “correction insulin”.
 - Your provider will tell you if, when and how much you should take.



Insulin Storage & Expiration Dates

Do you know...

how to store insulin and how long you can use it?

For your information

- Insulin should be stored in the refrigerator before it is opened.
- It should never be frozen.
- After you have begun using a pen or vial, it should be kept at room temperature.
- Avoid storing insulin vials and pens in direct sunlight or above the stove.
- Always check the packaging for an expiration date and how long you can use it once it is opened.
- Most insulin should be thrown away 28 days after first use; some are even less.



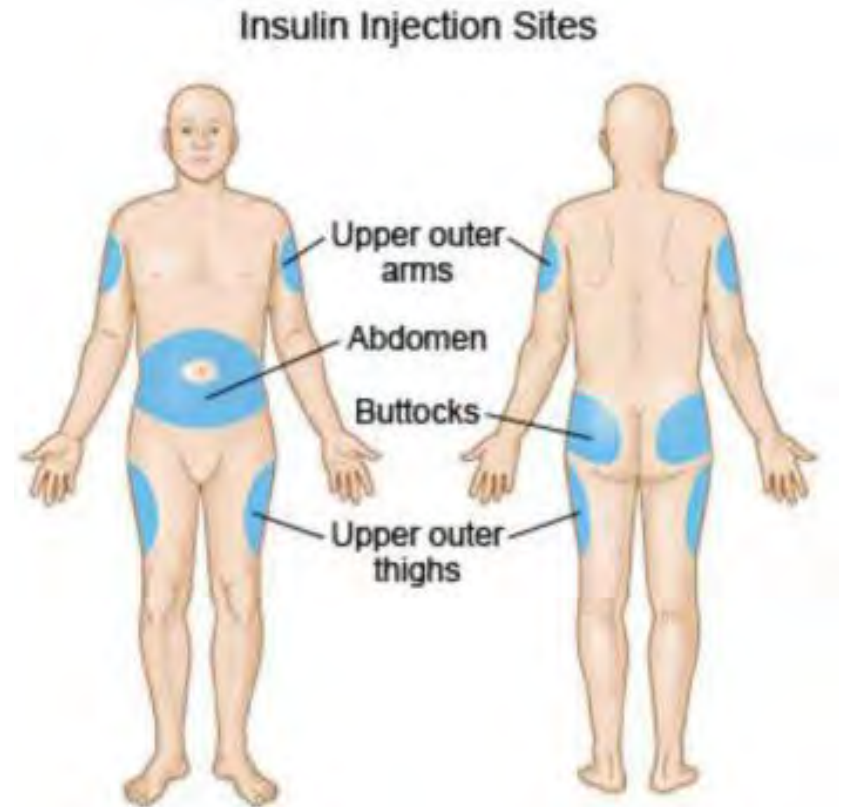
Insulin Important Tips

Do you know...

how and where to inject insulin?

For your information

- The diagram shows some appropriate injection sites. Ask your healthcare provider where the best place is for you.
- Before injecting your insulin, make sure the site is clean.
- Rotate sites to prevent scarring or bulges in the skin that prevent insulin from working well.
- Be sure the site you pick would allow you to pinch an inch, so the insulin goes into fat and not muscle.
- Do not reuse or recap syringes or pen needles.
- Dispose used needles according to the laws in your state.



**Anyone taking insulin
should be prepared to treat
low blood glucose.**

Diabetic Ketoacidosis (DKA)

DKA causes harmful ketoacids

DKA is a serious complication of diabetes that can be life-threatening.

- DKA requires immediate medical assistance for treatment.
- It is more likely to occur in people with insulin-deficient diabetes (Type 1 or Type 2).
- SGLT2 inhibitor-associated DKA may be with normal glucose values.

Preventing DKA:

- Withhold SGLT2 inhibitors when severely ill or dehydrated.
- Notify provider if blood glucose remains above 300, if you have nausea and vomiting, or feeling unwell.
- Avoid diabetes medication and insulin omission or inappropriate insulin dose reduction.
- Follow sick day protocols.
- Avoid keto diet.

Go to the emergency room or call 911 right away for the following DKA signs & symptoms:

- Blood glucose stays at 300 mg/dL or above.
- Fruity breath.
- Vomiting and can't keep food or drinks down.
- Trouble breathing.
- Multiple signs and symptoms of DKA.

Alpha Glucosidase Inhibitors

Do you know...

how Alpha glucosidase inhibitors work in the body?

- They delay breakdown of carbohydrates.
- There are some possible side effects:
 - Gas
 - Stomach upset/Diarrhea
- TIPS for taking the medicine:
 - Take with the first bite of a meal

Amylin

Do you know...

how Amylin works in the body?

- It inhibits glucagon secretion.
- It delays gastric emptying.
- There are some possible side effects:
 - Nausea/Vomiting
 - Headache
 - Low blood glucose

Blood Pressure Medications

Do you know...

how blood pressure medicine works in the body?

- **ACE-Inhibitor (ends with “pril”)**
 - Lowers blood pressure.
 - Protects the kidneys.
- There are some possible side effects:
 - Persistent dry cough.
 - High potassium levels.
- TIPS for taking this medicine:
 - Take with or without food.
- **ARBs (ends with “sartan”)**
 - Lowers blood pressure
 - Protects the kidneys
- There are some possible side effects:
 - High potassium levels.
- TIPS for taking this medicine:
 - Take with or without food.

Cholesterol Medications

Do you know...

how cholesterol (Statins) medicine works in the body?

- Reduces LDL and total cholesterol levels.
- Primary prevention/reduces risk for those with high-risk heart disease or stroke.
- There are some possible side effects:
 - Muscle pain
 - Abnormal liver enzyme levels
 - Discontinue if pregnant, nursing, or planning a pregnancy.
- TIPS for taking this medicine:
 - Avoid grapefruit.
 - Some statins are best taken at night.

Taking Medications

Key Points

Section 4

- There are a variety of medications you may be prescribed to manage your diabetes.
- Do not stop taking a medication without talking to your healthcare team.
- Keep a list of all current medications including the doses and the time to take them.
- Remember to properly store and dispose of your expired medications.
- Your healthcare team will work with you to determine the type, timing, and doses for your medications.
- Be aware of potential side effects and discuss with your provider if you are having any symptoms.
- Monitoring blood glucose, blood pressure, and weight can help evaluate the effectiveness of some medications.
- Diabetic Ketoacidosis (DKA) can be life-threatening. Go to the emergency room or call 911 right away for DKA signs & symptoms.

Section 5: Healthy Eating

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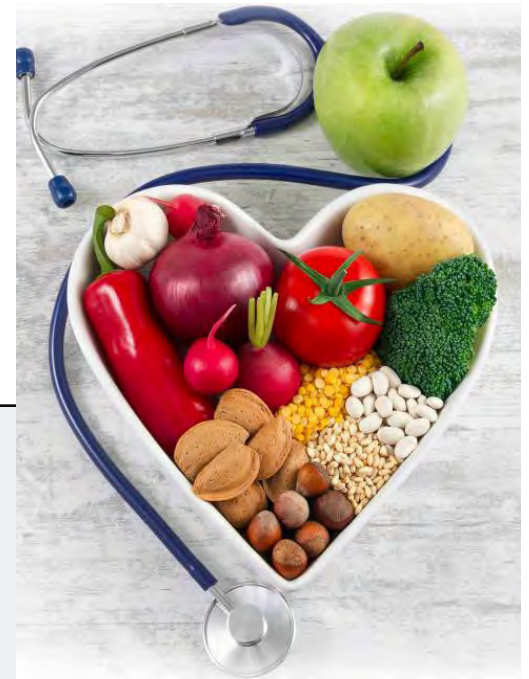
Healthy Eating Key Points

Do you know...

how, what, and when you should eat when you have diabetes?

For your information

- People with diabetes should eat balanced meals of healthy foods from all the food groups spread evenly throughout the day.
- Try to eat meals at regular times and take your time when you eat.
- Foods are made up of three types of nutrients: Carbohydrates, Protein, and Fat.
- Carbohydrates supply energy to body cells and have the greatest impact on blood glucose.
- Foods that have carbohydrates are mainly starches, fruits, milk, and sweets.
- Starches include bread, pasta, starchy vegetables (corn, potatoes, peas and some beans), cereal, and grains.
- There are no forbidden foods, but you should limit the amount of sweets you eat.
- Eat healthy fats such as olive oil, avocados, and flax seed. Choose foods that are grilled, baked, or sauteed in a healthy fat.



Healthy Eating

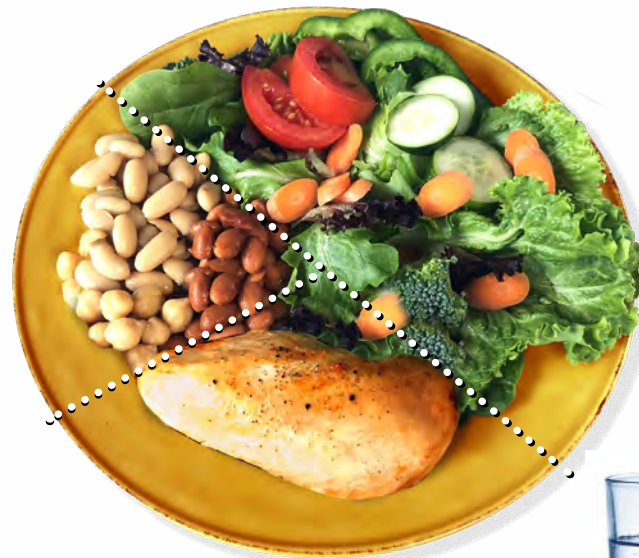
Do you know...

how following a low to moderate carbohydrate diet (for example, a Mediterranean/DASH-style eating pattern) affects the body?

- It is effective for improving blood glucose, weight, cholesterol and blood pressure.
- Mediterranean/DASH-style eating pattern:
 - One half the plate should have non-starchy vegetables.
 - One quarter will have protein.
 - The last quarter should be whole grains, legumes and starches.
- The DASH eating plan recommends:
 - Eating vegetables, fruits, and whole grains.
 - Including fat-free or low-fat dairy products, fish, poultry, beans, nuts, and vegetable oils.
 - Limiting foods that are high in saturated fat, such as fatty meats, full-fat dairy products, and tropical oils such as coconut, palm kernel, and palm oils.
 - Limiting sugar-sweetened beverages, sweets, and sodium.

$\frac{1}{4}$ = Whole grains, legumes and starches

$\frac{1}{2}$ = Non-starchy vegetables



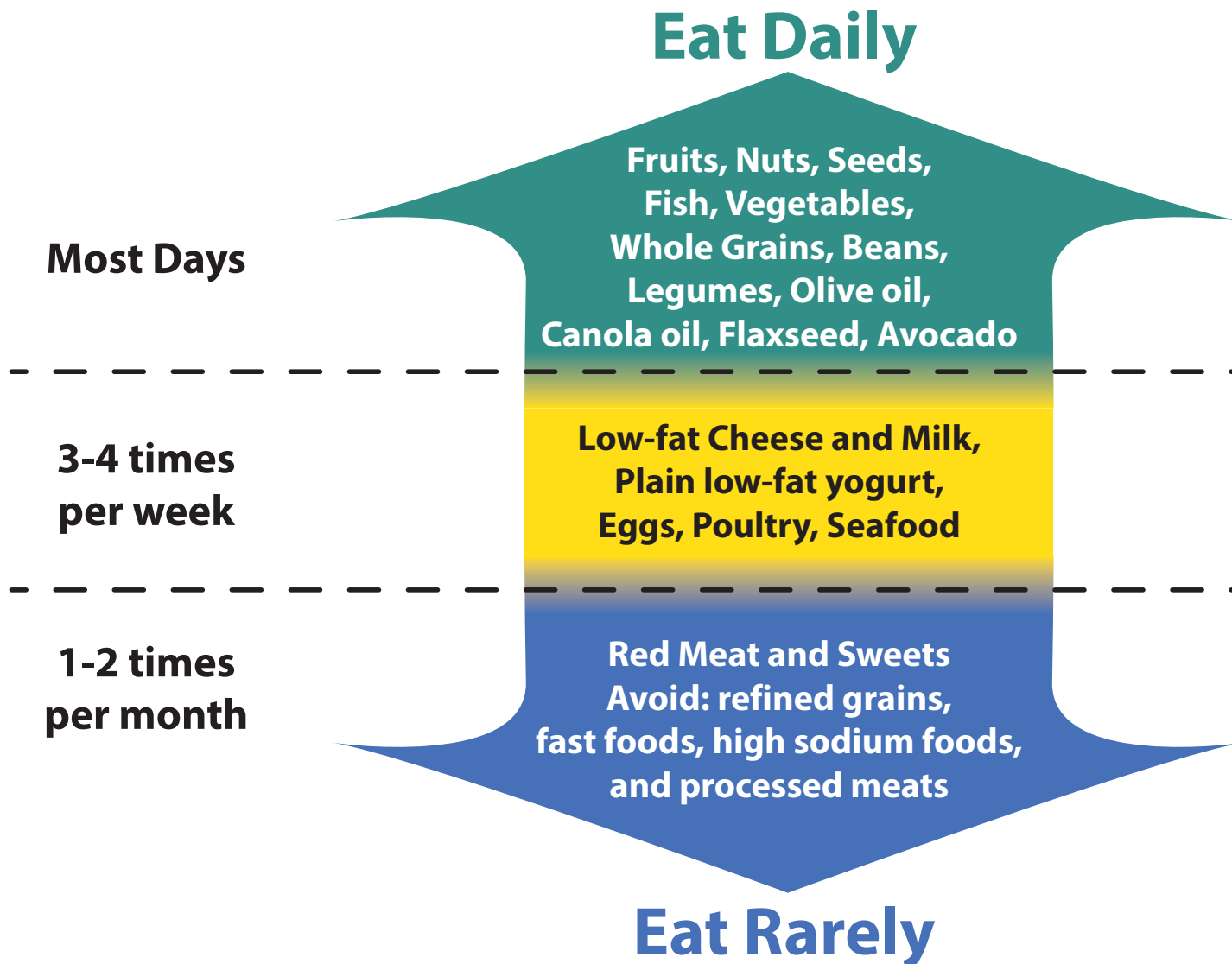
$\frac{1}{4}$ = Lean protein (such as poultry, fish, tofu, or a healthy meat substitute)



Your provider or a dietitian can help decide which approach is best for you and how much carbohydrates you should have at each meal.

Healthy Food Priorities

Focus on foods in their natural form



Limit Dietary Sodium

For your information

- Limit dietary sodium to 1500-2300 mg daily.
- Even designer salts contain sodium.



Mediterranean Style Eating

Do you know...

what Mediterranean style eating is and how it affects the body?

- It is a healthy eating plan focused on plant foods.
- It is known to have good effects on long-term diseases.
- It can lower risk factors for heart disease, high cholesterol and high blood pressure.



Oils

Choose monounsaturated fats such as olive or canola oil.



Consider adding low/non-fat yogurt or milk to your daily menu.

Do you know...

what foods are included in Mediterranean style eating?

- Vegetables
 - Focus on minimal processing and additions when cooking.
 - Choose different color vegetables to ensure a variety of nutrients.
- Beans/Whole Grains
 - Limit refined grains.
 - Choose whole grains, beans, nuts, and seeds.
- Protein & Seafood
 - Choose fish high in omega-3s.
 - Include lean poultry, eggs, and lower fat cheese.
- Fruit
 - Eat a wide variety of whole fruits.
 - Replace processed sweets with fruit.

Mediterranean Style Foods

Fish	Oils	Nuts, Beans, Seeds, and Legumes	Vegetables	Fruit	Grains	Herbs and Spices
Eat once a week	Choose unsaturated fats	Eat 3-6 servings per week	Choose 4+ servings each day. Make 1 serving raw.	3 or more servings per day	Choose 2-3 whole grain servings per day.	Use in place of salt to season food.
Salmon Sardines Cod Mackerel Herring Lake Trout Tuna	Olive oil Walnut oil Canola oil Flaxseed oil Avocado oil	Nuts: • Walnuts • Pecans • Pistachio • Cashews Beans/Peas: • Black beans • Kidney beans • Lima beans • Pinto beans • Chickpeas • Blackeye peas • Lentils Seeds: • Flaxseed • Chia seeds • Sunflower seeds	Eggplant Squash Broccoli Cauliflower Peppers Onions Greens Celery Tomato Leeks Kohlrabi	Apples Oranges Peaches Pears Pineapple Grapes Mango Pomegranates	Oats Whole wheat bread Rye Barley Couscous Whole wheat pasta Quinoa Brown rice Farro	Cloves Mustard seeds Marjoram Tarragon Cumin Garlic Mint

Estimating Carbs

Do you know...

when and how to estimate carbs in your daily food intake?

- It is important to control the amount of carbs you eat.
- If a food label is unavailable, you can estimate the carbs.
- Some grocery stores have a list near produce to refer to.
- 1 Serving = 15 grams of carbs
 - Starches
 - Fruit
 - Milk
 - Desserts (sweets)

Example

15-gram Carbohydrate Servings

Starches	1 slice of bread	
	1/3 cup cooked pasta or rice	
	1/2 cup starchy vegetable (potatoes, beans, corn, or peas)	
Fruit	1 small piece of fruit	 
	4 oz fruit juice	
Milk	8 oz milk	
	6 oz plain yogurt	
Desserts	½ cup of ice cream	
	2 Oreo cookies	

Fiber & Water

Do you know...

what types of foods provide fiber and how that works in the body?

- Eating dietary fiber (a type of carbohydrate) is beneficial for:
 - Blood glucose
 - Cardiovascular disease
 - Weight loss
 - Overall health
- Increase fiber slowly by adding:
 - Whole grain products
 - Skin-on fruits
 - Vegetables
 - Legumes
- Aim for about 25-30 grams fiber each day.



Do you know...

how much water you should drink each day?

- Drink 6-8 glasses of water each day.
- Limit beverages to sugar-free options and limit fruit juice and sweetened drinks.
- Limit alcohol intake.
 - No more than one serving for a woman and two for a man per day.
- Check with your provider.

Portion Control

Do you know...

an easy way to “measure” food portions?

- Use the guide here to help get the best portion sizes of the foods you eat.
- For more accuracy, you can measure or weigh foods.
- Using a 9-inch plate can help control carbohydrate amount and portion sizes.



= 1/2 Cup



= 1/2 Cup



= 1 Cup



= 1 Cup

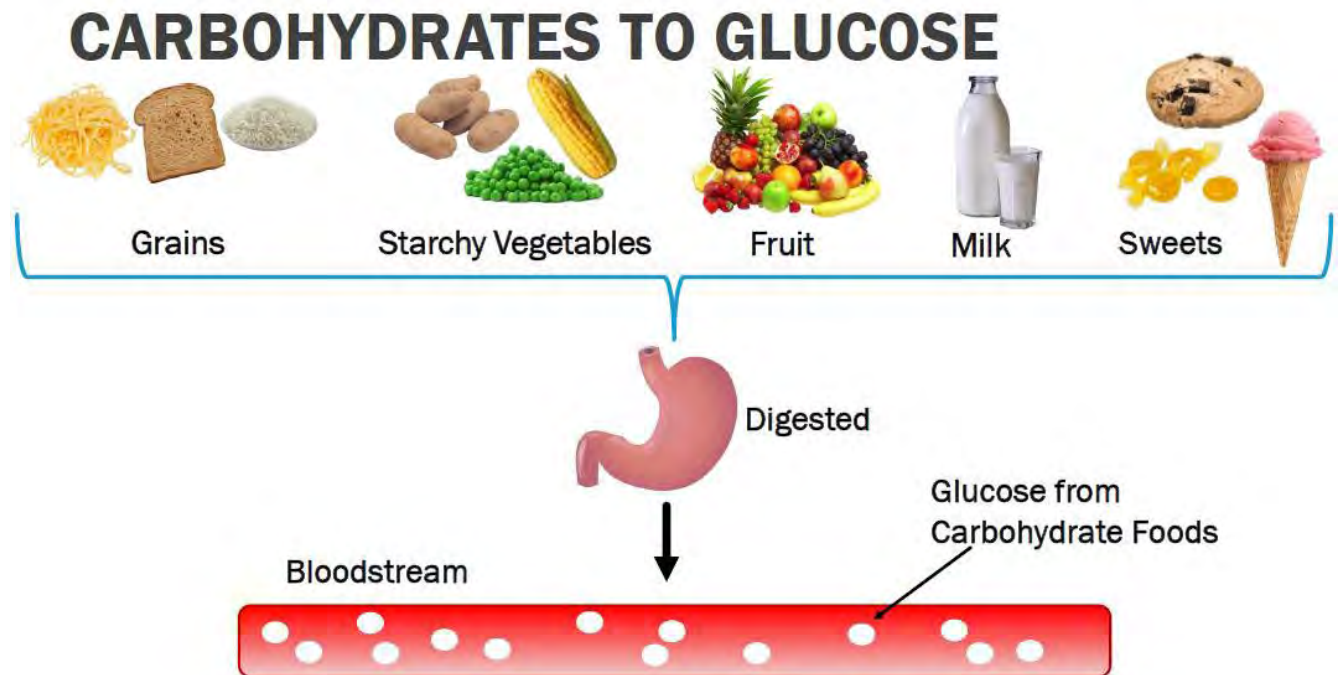


Carbohydrates to Glucose

Do you know...

carbohydrates turn into glucose?

- Once carbs are digested, they enter the bloodstream.
- Carbs do provide energy or fuel for the body.
- They should be eaten in MODERATION.
- They should NOT be avoided completely.
- Eating carbs should be BALANCED with non-starchy vegetables, protein, and healthy fats.



Carbohydrates supply energy to body cells and have the greatest impact on blood glucose.

Food Chart

Starches	Fruit	Milk	Sweets	Non-Starchy Vegetables	Protein	Fats
1 serving = 15 grams of carbs				1 serving = <5 grams of carbs		
Healthy Choices 1/3 cup brown rice 1 small sweet potato 1/2 cup mashed potato 1 small baked potato 1/2 cup beans/peas (cooked) 1/2 cup corn 3 cups popped popcorn 1/2 cup cooked oatmeal 1/2 cup dry cereal 1/2 cup bran cereal 1 slice whole grain bread Less Healthy 1/3 cup rice or pasta 1/4 large bagel 1/2 hamburger bun 1/2 English muffin 1/2 large biscuit 6 crackers 4" pancake or waffle 10 french fries Combo Foods 1 cup soup 1 slice thin pizza 1/2 cup casserole 2 inch square lasagna 2-3 chicken strips	1 small piece apple pear peach orange 1 cup melon cubes cantaloupe honeydew watermelon 1 cup berries strawberries blueberries raspberries 1/2 banana 15 grapes or cherries 1/2 cup canned fruit (light syrup or juice) 2 Tbsp. raisins 3-4 prunes 1/4-1/2 cup fruit juice	1 cup whole milk 1 cup 2% milk 1 cup skim milk 6-8 oz. yogurt (varies by brand, check the label) Milk Alternatives 1 cup oat milk 1-1 1/2 cup soy milk 1-1 1/2 cup almond milk 1 cup coconut milk (varies by brand, check the label)	1/2 cup ice cream 1 ice cream bar 1 cup sherbet 1 doughnut 6 vanilla wafers 2 Cookies 1 unfrosted brownie 3 graham cracker squares 3 peppermint candies 5 Chocolate Kisses® 1/2 cup gelatin 1 small granola bar 1 popsicle 9 Jelly Beans®	1 cup raw or 1 cup cooked asparagus green beans beets broccoli brussels sprouts cabbage carrots cauliflower celery cucumbers greens lettuce mushrooms okra onions peppers radishes squash spinach tomatoes turnips zucchini	chicken turkey beef pork fish shellfish bison venison cheese cottage cheese eggs tofu	Monounsaturated canola oil olive oil peanut oil nuts avocados olives Polyunsaturated soybean oil corn oil sunflower oil margarine mayonnaise salad dressing pumpkin seeds sunflower seeds Saturated butter shortening cream cheese sour cream lard

Nutrition Facts Labels

Do you know...

how reading nutrition facts panels (food labels) can help you to better manage your diabetes?

- Read the nutrition facts labels on foods and beverages.
- Note the item's serving size and total carbohydrates.
- Total Carbs grams includes starch and fiber in addition to sugar.
- Serving size is not a recommendation of how much to eat.
- Remember it is the total carbohydrate that impacts blood glucose.
- The nutrition facts label includes "Added sugars." Try to consume less added sugar.

Nutrition Facts	
8 servings per container	
Serving size	2/3 cup (55g)
Amount per serving	
Calories	230
% Daily Value*	
Total Fat 8g	10%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	13%
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 240mg	6%
*The % Daily Value (DV) 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.	

Read the Labels

Note the serving size.

Saturated Fat and Trans Fat = Unhealthy Fat

Lower your risk for heart disease by limiting unhealthy fats.

Recommended amount of saturated fats:

Women: less than 12 grams per day

Men: less than 15 grams per day

Total Carbohydrates = Starch + Sugar + Fiber

Look at the amount of carbohydrates by gram in one serving.

Fiber

Aim for foods with at least 3 grams fiber per serving.

Sugar-Free and No Sugar Added Foods

Do you know...

sugar-free does not mean carbohydrate free?

- Focus mostly on total carbohydrates.
- Limit eating sugar alcohols. They will increase blood glucose and may cause diarrhea.
- “Natural” sugars are included in the Total Carbohydrate grams.



about 16 servings per container	
Serving size	2 pieces (31g)
Amount per serving	
Calories	130
% Daily Value*	
Total Fat 9g	12%
Saturated Fat 5g	25%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 25mg	1%
Total Carbohydrate 18g	7%
Dietary Fiber 1g	4%
Total Sugars 0g	
Includes 0g Added Sugars	0%
Sugar Alcohol 15g	
Protein 2g	
Vit. D 0mcg 0% • Calcium 6mg 0%	
Iron 1mg 6% • Potas. 66mg 2%	
* The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a day is used for general nutrition advice.	

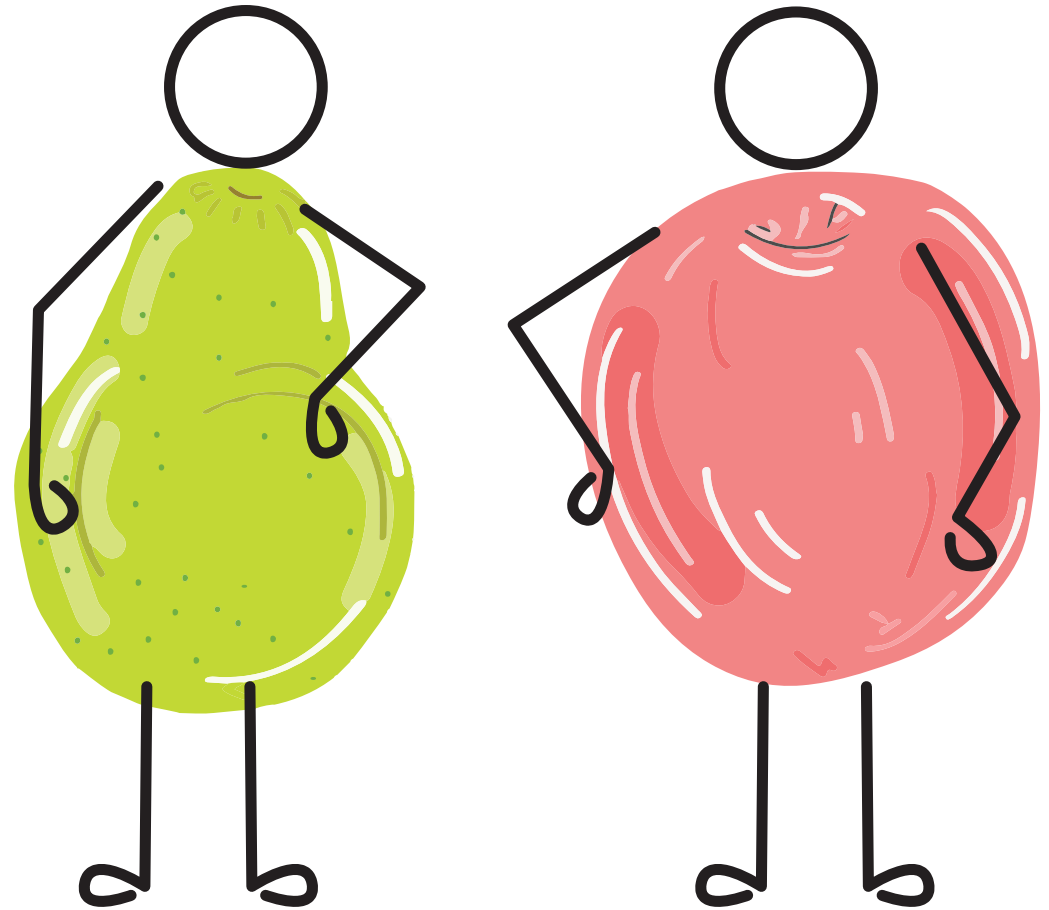
Nutrition Facts	
12 servings per container	
Serving size 8 FL OZ (240mL)	
Amount per serving	
Calories	140
% Daily Value	
Total Fat 0g	0%
Sodium 10mg	0%
Total Carbohydrate 37g	13%
Total Sugars 35g	
Includes 0g Added Sugars	0%
Protein <1g	
Calcium 30mg	2%
Potassium 140mg	2%
Vitamin C 90mg	100%
Not a significant source of saturated fat, trans fat, cholesterol, dietary fiber, vitamin D and iron.	
No Artificial Flavors, Colors or Preservatives	

Weight Management

Do you know...

being overweight is a factor in diabetes?

- Diabetes is caused by a number of factors like family genetics, weight, lifestyle, and ethnicity.
- Extra weight can cause insulin resistance. Losing weight could help insulin you produce or inject work properly.
- Even a 5% loss of body weight can improve your insulin resistance.
- If you are overweight, focus on eating fewer calories or weight loss of 3-5%.
- For healthy weight, decrease fat intake.
- May result in taking less medication.



Online Nutrition Resources

For your information

Online Nutrition Resources

MY "HEALTHY" PLATE: www.myplate.gov

RECIPES: <https://commissaries.com/recipes/all-recipes>

NUTRITION: https://www.nutrition.va.gov/Healthy_Teaching_Kitchen.asp

Online Fitness Resources

NOFFS: <https://www.navyfitness.org/fitness/noffs-training>

TOTAL FORCE FITNESS: <https://www.hprc-online.org>

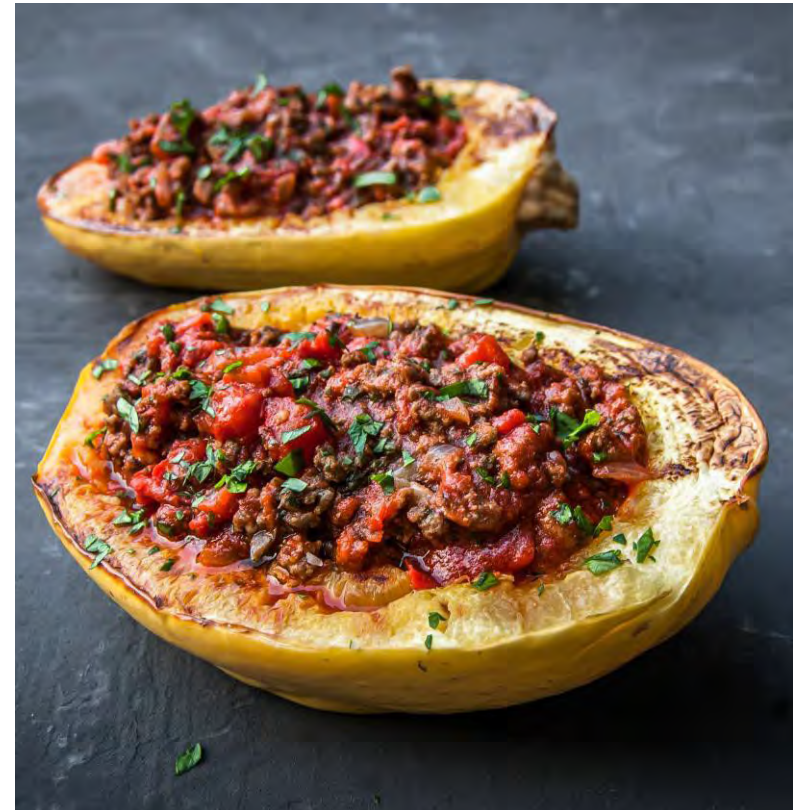
CDC: <https://www.cdc.gov/physicalactivity>

NATIONAL INSTITUTES OF HEALTH: <https://www.nih.gov/health-information/your-healthiest-self-wellness-toolkits>

Online Diabetes Resources

GROUP LIFESTYLE BALANCE: www.diabetesprevention.pitt.edu

MEDLINE PLUS: <https://medlineplus.gov/diabetesmellitus.html>



Healthy Eating

Key Points

Section 5

- Create balanced meals using the My Plate method.
- Carbohydrates raise blood glucose but should not be avoided.
- Carbohydrate intake should be individualized.
- Starches, sweets, milk, and fruit have carbohydrates.
- Nutrition Facts labels provide important information on serving sizes, carbohydrate grams, and sodium content.
- A Mediterranean/DASH-style eating pattern may help to improve blood glucose, body weight, and blood pressure.
- Dietary sodium impacts blood pressure, especially those with diabetes.
- Extra weight can cause insulin resistance. Losing weight could help insulin you produce or inject work properly.

Section 6: Being Active

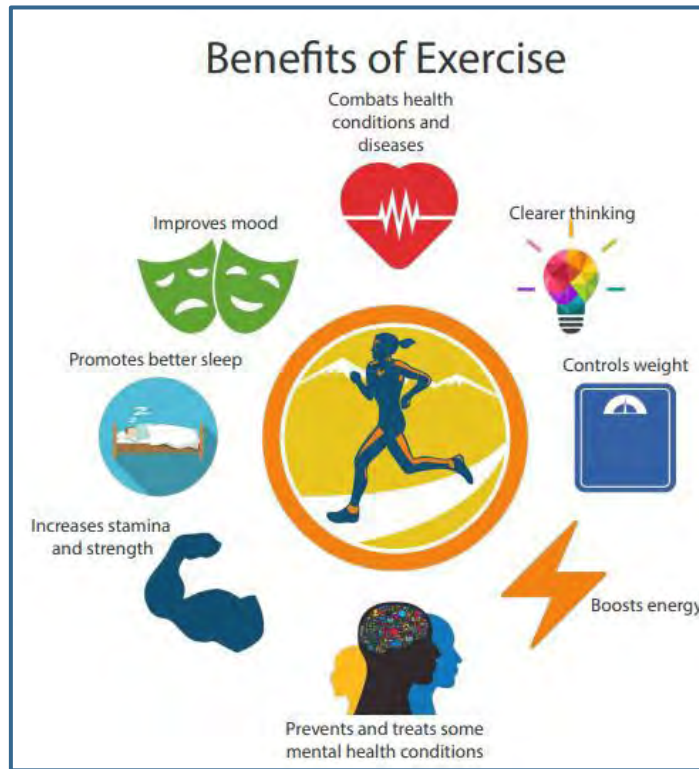
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Being Active

Do you know...

why it is important to be physically active?

- Physical activity improves blood glucose by helping insulin work better.
- Benefits include:
 - Weight loss
 - Lower blood pressure
 - Lower cholesterol
 - Increased strength
 - Better rest
 - An increased sense of well being.



Do you know...

how physical activity will impact your blood glucose?

- Because physical activity helps insulin work better, it will lower your blood glucose.
- Because of this, you need to be prepared to treat low blood glucose if you take insulin or any medication that can drop blood glucose too low.
 - Carry a fast-acting carb such as hard candy or glucose tablets if you are at risk for hypoglycemia.

Physical Activity & Exercise

Do you know...

how much physical activity you need?

If your blood glucose is above 300 mg/dL, exercise may not be safe. Check with your provider.

Do you know...

what type of exercise is best for you?

- Talk with your provider about what exercises would be safe for you.
- Make a plan to increase your regular physical activity, walk or move more each week.
 - Start off by taking a 5-minute walk.
 - Slowly, add more time until you reach 30 minutes, 5 days a week.
 - While watching TV, walk or dance around the room, march in place, or do some sit-ups and leg lifts.

For your information

Commitment & Planning

- The key to a successful activity plan is commitment and good planning.
- Find a way to fit it into your schedule.
- Choose your favorite activities.
- Take it slow. Don't over do it.
- Check your glucose.
- Carry "fast" carbs.
- Keep track of your activity.
- Find a friend to join you.
- Take a class or join a league.
- If you exercise outside, have a back up plan for rainy days (such as indoor walking).
- Be sure to include a warm up and cool down to prevent injury.
- If you lack time due to a busy schedule, find time to exercise and work it into your schedule: take a five minute stair break every hour, walk on your lunch break, or plan an after-dinner walk.



Ways to Be Active

Do you know...

ways to be active in your everyday life?

- When shopping or driving to work, park a little farther away from the entrance.
- If it is safe, get off the bus a stop or two early and walk the rest of the way.
- Deliver a message in person instead of sending an e-mail.
- Take the stairs instead of the elevator.
- Try using a pedometer to count the steps you take.
- Moderate exercise is any activity that will noticeably increase your heart and breathing rate, but still allow you to carry on a conversation.
- ***Don't be afraid to break a sweat!***



Do you know...

ways to build endurance, increase flexibility, and build strength?

Build Endurance

- Walking and Hiking
- Biking
- Swimming
- Aerobic class

Activities to Increase Flexibility

- Dance
- Tai Chi
- Yoga
- Pilates
- Balance class

Steps to Build Strength

- Weight training
- Resistance bands
- Muscle class

Diabetes Specific Safety Tips

Do you know...

what every day safety tips are needed for diabetes patients?

- Bring glucose monitoring supplies.
- Carry a fast-acting carbohydrate (such as glucose tablets) in case of a low blood glucose.
- It is important to carry or wear medical alert identification (such as wallet card, bracelet, or dog tags).
- Discuss with your healthcare team if medication adjustments are needed for your selected activity.
- Stay hydrated. Drink plenty of water.



I HAVE DIABETES	
Emergency Treatment Information Card	
My Name:	_____
Emergency Contact:	_____
Phone:	_____



Pre-Physical Activity

Do you know...

what you should do BEFORE starting any physical activity if you are NOT on insulin?

- Check blood glucose.
- Eat a snack if blood glucose is <90 mg/dL
 - 15-30 grams of “carbs”



Do you know...

what you should do BEFORE starting any physical activity if you ARE on insulin?

Before

- Check blood glucose.
- If blood glucose is >250 mg/dL
 - Check urine ketones, if positive, delay exercise.
- If blood glucose is <90 mg/dL
 - Eat 15-30 grams of carbs.

During

- Check in with your body.

After

- Recognize and treat low blood glucose up to 14 hours after physical activity.

General Safety Tips

For your information

- Always carry identification.
- Always have glucose tablets on hand.
- Carry a cell phone in case of emergency.
- Include friends and family in your activities.
- Being active with a “buddy” is safer than being alone.
- Use the right safety equipment (such as a bicycle helmet).
- Wear proper footwear.
- Wear closed-toe shoes that fit your feet.

- Wear sunscreen.
- Bring a whistle.
- Dress for the weather.
- Avoid being active for long periods in very hot or very cold weather.
- Walk in the evening if it's too hot during the day.
- Skip activity if you're sick.
- Drink plenty of water before and during activity.



Modifying Activities

Do you know...

you may need to modify some activities?

If you have Retinopathy (a complication of diabetes that affects the eyes):

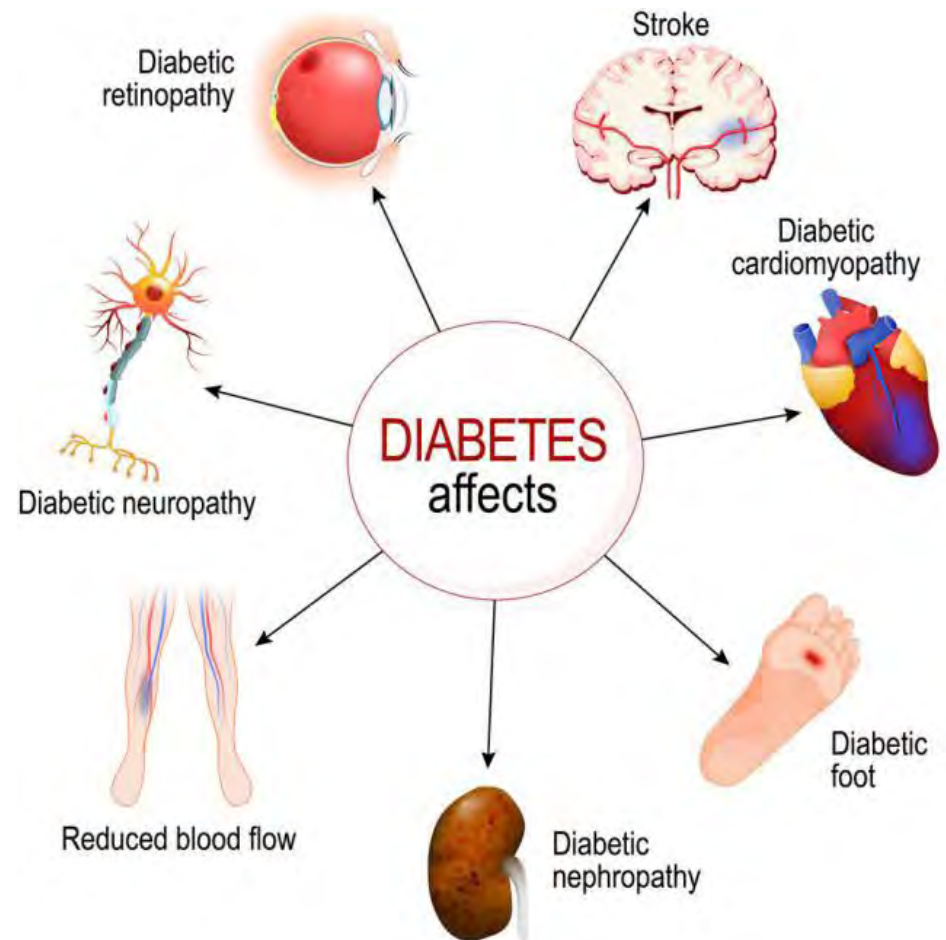
- Avoid exercises that put pressure on the head and eyes.
- Avoid bending below the waist.

If you have Neuropathy (nerves outside the brain and spinal cord are damaged):

- Monitor areas of less sensation.
- Choose exercises that are low impact.
- Wear proper footwear.

If you have Cardiac (heart) Issues:

- Check with your provider about what exercise activities are safe for you.
- Avoid strenuous exercise and heavy lifting.



Being Active

Key Points

Section 6

- Being active is a key part of diabetes self management.
- Physical activity can provide physical, emotional, mental, and social benefits.
- When exercising, it is important to follow general and diabetes specific safety tips.
- If you have retinopathy, neuropathy, or cardiac issues you will need to modify the type of exercise you do.
- Creating a personal activity plan and setting goals will help you stay on track.

Section 7: Diabetes ABCs & Reducing Risks

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Diabetes ABCs

Do you know...

A_{1C} levels
Blood pressure
Cholesterol

What happens to the heart, nerves, kidneys, and other organs when blood glucose stays above your target range for long periods?

- **Long-term high blood glucose** levels can cause inflammation and damage to blood vessels and nerves.
- Some of the more common complications may include damage to the heart, eyes, kidneys, nerves, feet and brain.
- Prevention is key.
- Strive to keep the hemoglobin A1c (HbA1c) within the desired range agreed upon with your provider.

Why is it important to manage your blood pressure?

- **High blood pressure** increases the risk of heart disease, stroke, kidney and eye disease, as well as other problems.
- Diabetes and high blood pressure together increase the risk of health problems.
- Your provider will help you decide the best blood pressure range for you, how often to watch and if you need medications to help manage your blood pressure.

Why is it important to treat high cholesterol?

- Desired **cholesterol** levels vary according to the risk for heart disease.
- Insulin plays a role in managing blood cholesterol, especially triglycerides.
- Diabetes increases the risk of heart disease, paired with high cholesterol, that risk becomes greater.
- Your provider may also recommend a statin or other cholesterol medication to decrease your risk of heart disease.

Reducing Risks

Do you know...

The importance of not smoking?

- **Smoking** puts a person at risk for heart disease and cancer, paired with diabetes that risk increases.
- It is best to stop smoking or using tobacco products.
- There are a lot of resources available to help you stop using tobacco.

The importance of good foot care?

- Diabetes is the leading cause of non-traumatic amputations in the United States.
- Damage to nerves and blood vessels in the legs is the primary cause of foot problems.
- People with diabetes can lose the feeling in their feet and not realize there is an injury, ulcer, or infection, which if not treated, may require hospitalization.
- Your provider should perform a comprehensive foot exam at least annually.
- You should examine and care for your feet every day. Look for any injuries or signs of infection.
- For more information visit <https://medlineplus.gov/ency/patientinstructions/000081.htm>

The importance of regular eye exams?

- Your eye provider can catch problems of diabetic retinopathy with regular eye exams.

How diet and exercise are important for people with diabetes?

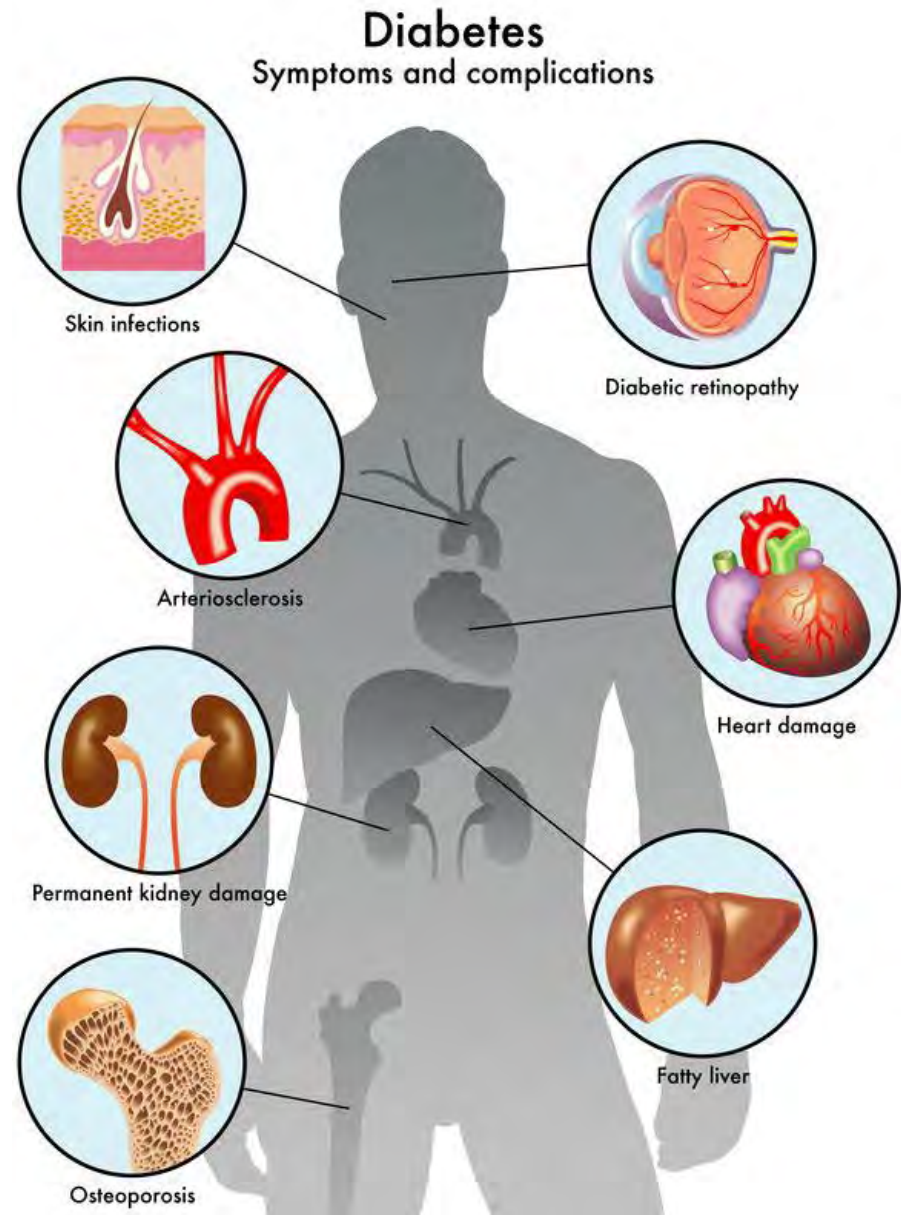
- They may help manage high blood glucose, high blood pressure, and high cholesterol?

Long-Term Complications

Did you know...

diabetes affects both small and large blood vessels found in:

- Feet
- Nerves
- Eyes
- Kidneys
- Sexual organs
- Urinary tract
- Heart
- Stomach
- Brain
- Bones
- Ears
- Mouth



Heart Disease

Cardiovascular Health

Do you know...

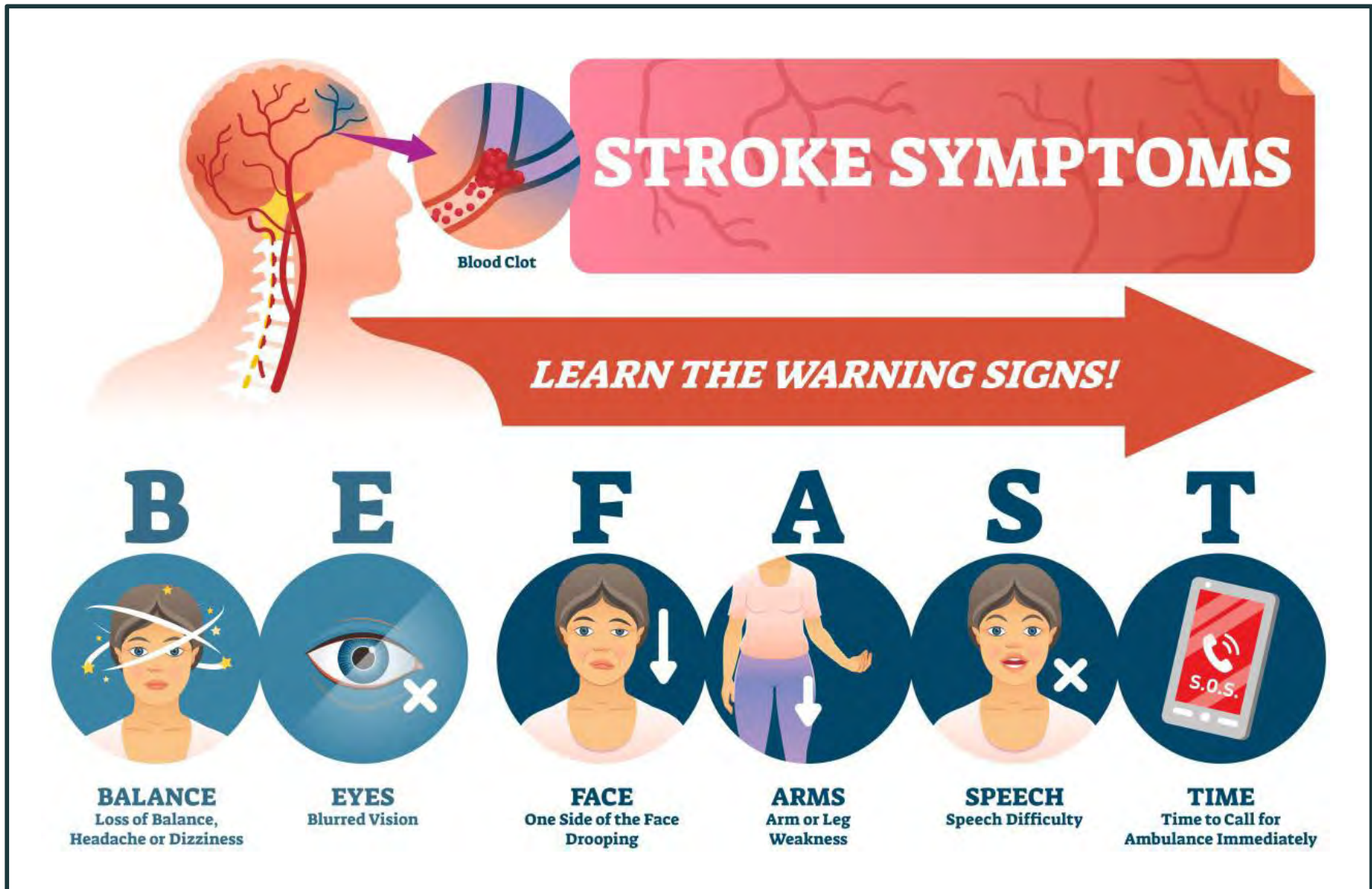
diabetes and heart disease go hand in hand?

- Over time, high blood glucose can damage blood vessels and nerves that control your heart.
- Plaque deposits (cholesterol) build up in the coronary and/or peripheral arteries.
- If experiencing chest pain or pressure, call 911!
- ***Be sure to tell them you have diabetes.***



Stroke

Knows the symptoms and signs



Reduced Blood Circulation

Peripheral Vascular Conditions

Do you know...

peripheral Vascular disease is reduced circulation of blood to body parts?

- You may experience reduced blood flow in arms or legs.
- Slow or non-healing foot or leg wounds.
- Cellulitis (a skin infection).
- Amputation (in some severe cases).

Symptoms to pay attention to:

- Cool to touch
- Discoloration
- Swelling
- Pain
- Pain or cramping with walking, can get better with rest.



Nerve Damage

Peripheral Neuropathy

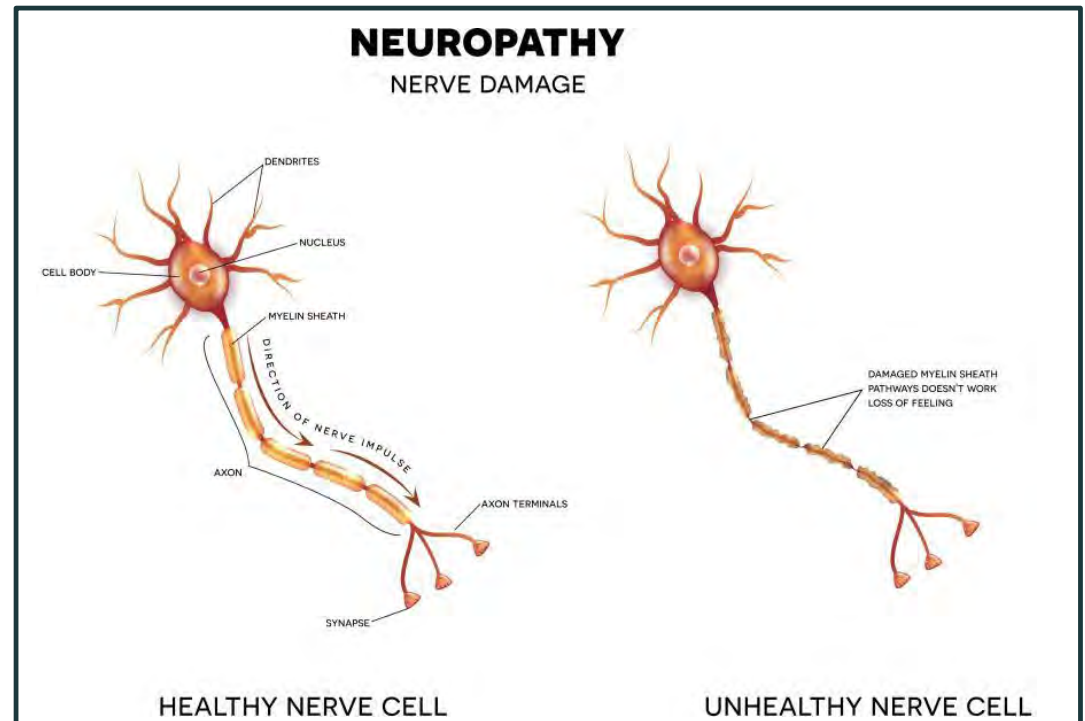
Do you know...

neuropathy is a result of nerve fiber damage in hands, feet, legs and arms?

- It is caused by high glucose levels.
- May lead to infection and amputation of the affected area.

Be aware of the signs and symptoms:

- Numbness and/or tingling
- Pain or increased sensitivity
- Loss of sensation
- Hair loss on legs and feet
- Non-healing ulcers
- Up to 50% of people with diabetes have no symptoms

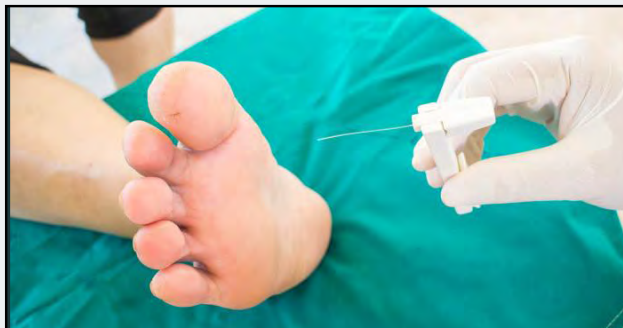


Foot Exam & Care

Do you know...

a comprehensive foot exam should be performed yearly by a Provider or a member of the healthcare team or more often as needed?

- Visual inspection:
 - Looks for sores, red areas, color, hair loss, corns, calluses, bunions, and fungus.
 - Assesses toenail health.
- Physical assessment:
 - Feels for warmth, coldness, and pulses.
 - Checks for sensation with a monofilament.
 - Verifies vibratory feel with tuning fork.
 - Uses a small hammer to check reflexes.



Do you know...

you should care for your feet everyday?

- Check feet daily for cuts, redness, swelling, blisters, and ingrown toenails.
- Wash and dry feet daily.
- Apply lotion, but not between the toes.
- Do not cut or use over the counter medications to treat corns or calluses; discuss treatment with your health care team.
- Trim toenails straight across, rounding out sharp edges with an emery board.
- Wear shoes and socks both indoors and outdoors.
- Protect your feet from hot and cold.
- Keep blood flowing to your feet by being active and moving your feet even when seated.
- Wear shoes that fit well.
- Have your feet checked at your medical visits.



Gastroparesis (Stomach)

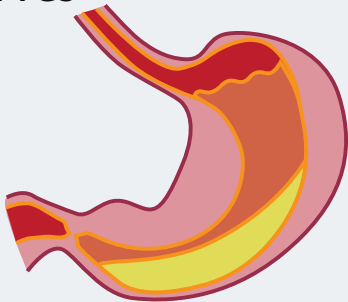
Do you know...

Gastroparesis is a functional disorder affecting your stomach nerves and muscles?

- It is very common in people with Type 1 diabetes and getting more common in people with Type 2.
- It slows digestion.
- It affects the nerves in the stomach.

Symptoms:

- Vomiting
- Nausea
- Abdominal bloating
- Erratic blood glucose
- Feeling of fullness
- Not hungry



Do you know...

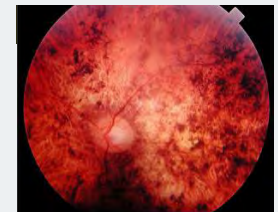
what diabetic retinopathy is?

- It is damage to the blood vessels in the tissues of the retina (part of the eye).
- It is caused by too much glucose in the blood over time.
- It can lead to eye disease and even blindness.
- Early treatment can save your vision.
- Report blurry vision, flashes of light, blind spots, "things" floating, or changes in vision to your provider.
- Be sure to get an annual dilated retinal exam.
- Managing your A1c, blood pressure, and cholesterol will help.

Healthy Eye



Retinopathy



Risks to the Brain

Do you know...

diabetes can affect your brain by damaging nerves and blood vessels?

- Increased risk and rate of impairment.
- Higher risk for dementia.
- Higher risk for Alzheimer's.
- Higher risk for vascular dementia in women.



May be related to insulin resistance, frequent or prolonged hyperglycemia.

Diabetic Kidney Disease

Do you know...

the best way to slow kidney damage is to control your blood glucose?

- Early treatment can save your kidneys.
- Damage to the filtering system.
- Build up of fluids, electrolytes, and waste in the body.
- Protein excreted in the urine.
- Signs or symptoms may not develop until irreversible damage has occurred.



Sexual Health

Do you know...

diabetes can cause issues in sexual health?

- Performance anxiety
- Painful intercourse
- Vaginal dryness
- Erectile Dysfunction (ED)
- Orgasmic/Ejaculatory Function abnormalities
- Decreased arousal and desire
- Low testosterone
- Inability to orgasm
- Vagina infections
- Decreased self esteem

Managing Sleep

Do you know...

what the effects are of getting too little sleep on your body and your diabetes?

- It increases insulin resistance.
- It increases hunger.
- It makes it harder to lose weight.
- Your blood pressure may raise and increase the risk of having a heart attack.
- It reduces the immune system's ability to fight infections.
- It may increase the risk of depression or anxiety.
- It slows reflex response time.

Sleep tips

- Develop consistent sleep patterns.
- Keep the bedroom dark, quiet, and cool.
- Remove electronic devices from the bedroom.
- Mentally unwind and relax before bedtime.
- Have a bedtime routine (taking a shower, reading, writing, or meditating).
- Get into bed only when you are sleepy.
- Speak with provider about insomnia, snoring, or excessive daytime napping to rule out sleep apnea.

Recommended Routine Care

Do you know...

you should have routine exams or tests to help maintain your diabetes?

Exam/Test	How Often
A1c	2 - 4 times per year
Blood Pressure	Check at every healthcare visit
Dental Exam	Preventive care two times per year
Eye Exam	At diabetes diagnosis and follow up as recommended
Foot Exam	Self-check daily. Comprehensive exam yearly
Immunizations/ Vaccinations	Stay up to date: Flu, COVID, Pneumonia
Kidney Function	At least yearly
Lipid Panel	At least yearly

For your information

Diabetes Self-care tips

- Take medications as directed
- Monitor blood glucose and other routine tests
- Check feet, brush teeth and gums, and floss daily
- Quit smoking
- Manage blood pressure and cholesterol
- Keep regular appointments with healthcare team
- Get adequate sleep

Reducing Risk

Key Points

Section 7

- Prolonged elevated blood glucose can lead to long term complications.
- Optimizing diabetes ABCs (A1c, blood pressure, and cholesterol) can help prevent complications.
- Having blood/urine tests and other exams will help reduce risks.
- Keeping regular healthcare appointments is important.
- Stay up to date on immunizations.
- Check feet daily and get a foot exam each year.
- At diabetes diagnosis be sure to get an eye exam and follow up as recommended.

Section 8: Problem Solving & Follow Up

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Problem Solving & Follow Up

Do you know...

when you should see your provider?

If you have been hospitalized, you should follow up with the provider who helps you manage your diabetes soon after discharge.

Do you know...

what things to discuss with your provider?

- Talk to your provider and healthcare team about your diabetes control, that is, your blood glucose, especially high and low blood glucose.
- Discuss your A1c and any other lab values.
- Talk to the care team about medications and any problems you may be having, including infections or wounds that won't heal.
- Ongoing contact with your healthcare team through virtual or tele-health visits can also be beneficial.



Diabetes Education

Do you know...

how to follow-up for more diabetes education?

- There is a lot you need to know about diabetes.
- You should seek additional diabetes education as a need arises.
- It is important to maintain current understanding and self-management skills.
- Even if you have had diabetes education in the past, the science of diabetes is always changing, and **education refreshers can have great benefits!**
- Specialty trained diabetes educators can give patients the support and tools they need to manage their diabetes. They are eager to help with patients' individual diabetes management needs.
- NOTE: Patients may need a referral from their provider for outpatient education.
- Also, insurance coverage for diabetes education can vary. The center where diabetes education is offered can assist patients with the process of obtaining outpatient education.

Diabetes Specific Safety Tips

Do you know...

what every day safety tips are needed for diabetes patients?

- Bring glucose monitoring supplies.
- Carry a fast-acting carbohydrate (such as glucose tablets) in case of a low blood glucose.
- It is important to carry or wear medical alert identification (such as wallet card, bracelet, or dog tags).
- Discuss with your healthcare team if medication adjustments are needed for your selected activity.
- Stay hydrated. Drink plenty of water.



I HAVE DIABETES	
Emergency Treatment Information Card	
My Name:	_____
Emergency Contact:	_____
Phone:	_____



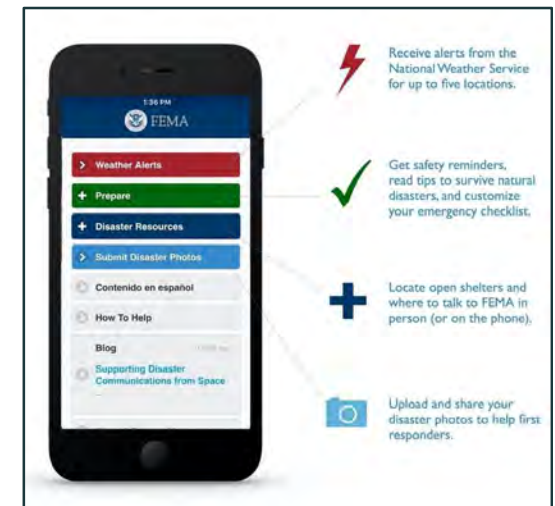
Disaster Considerations & Planning

Things to consider...

- What type of disasters do you have in your area?
- How will that disaster impact your diabetes care?
- Do you have a plan to take care of your diabetes in the event of a disaster? Do you have a diabetes disaster kit?
- What is in it or what do you plan to put in it?
- Have you ever been in a disaster and are you willing to share how it went?

Emergency Plans

- Make an emergency plan and kit.
- Store 3 days of diabetes supplies.
- Store 3 days of non-perishable food.
- Keep insulin, supplies and equipment in a safe location.
- Find a Diabetes Disaster Team if you need help.
- Download FEMA app: www.FEMA.gov



Problem Solving & Follow Up

Key Points

Section 8

- Diabetes Self Management Education and Support is an ongoing process.
- Be prepared for any situation. Have an emergency plan and kit.
- For your safety, carry or wear medical alert identification (such as wallet card, bracelet, or dog tags).
- Carry fast carbs.
- Take advantage of VA, DOD, and community resources and Apps.
- Talk to your Provider or healthcare team to identify resources and support to help manage your diabetes.

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Section 9

Resources Disclaimer

For your information

- A Web address that ends in “.gov” means it’s a government-sponsored site; “.edu” indicates an educational institution. These are generally regarded as good sources of information.
- Some online sources of diabetes-related information are trustworthy, but others are confusing, inaccurate, or misleading, or they may be missing important information.
- Don’t rely completely on online resources when making decisions about your health. If you have questions about diabetes-related information found online, discuss it with your healthcare provider.
- Ask yourself these 5 questions when checking online sources of health information:
 1. Who runs or created the site or app? Can you trust them?
 2. What is the site or app promising or offering?
Do its claims seem too good to be true?
 3. When was its information written or reviewed?
Is it up-to-date?
 4. Where does the information come from?
Is it based on scientific research?
 5. Why does the site or app exist? Is it selling something?

Resources

- My Plate (US Department of Agriculture) myplate.gov
- Low Blood Glucose (Hypoglycemia), National Institute of Diabetes and Digestive and Kidney Diseases <https://www.niddk.nih.gov/health-information/diabetes/overview/preventing-problems/low-blood-glucose-hypoglycemia>
- 15-15 Rule, National Institutes of Health. US National Library of Medicine nlm.nih.gov/medlineplus/ency/imagepages/19815.htm
- National Institute of Diabetes and Digestive and Kidney Diseases niddk.nih.gov/health-information/diabetes
- Centers for Disease Control and Prevention (Division of Diabetes Translation) cdc.gov/diabetes
- Agency for Healthcare Research and Quality <https://www.ahrq.gov/health-literacy/professional-training/shared-decision/index.html>

Web addresses often change without notice. If a web address no longer works, use key words to search for the information using an internet browser.

Do you know...

about resources that may also be available to you in your community or area?

- Check local churches, health departments, or community centers.
- Your medical center may have programs to help manage diabetes.

NOTE: The websites provided here are excellent resources that may help you better manage your diabetes, however, the VA and DoD do not endorse these websites.

VA/DoD Resources

For your information

For more information and to access the available tools at VA/DoD Clinical Practice Guideline for the Management of Diabetes Type 2 Mellitus, visit

healthquality.va.gov/healthquality/guidelines/CD/diabetes or
<https://www.health.mil/About-MHS/MHS-Element/DVPO/VADOD-CPGs>

Available 2023 tools:

- DM Patient Summary
- Prediabetes Infographic
- Diabetes Patient Survival Skills
- Diabetes Clinical Educator Edition
- Diabetes Self-Care Guide
- Diabetes Placemat
- and more

