Clinical Educator Edition

Educating Patients with Diabetes

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

For the Clinical Educator

Teaching Tips:

- Consider patient readiness for learning: attitude, physical conditioning, attention span, learning ability, health literacy, and numeracy (the ability to understand and work with numbers).
- Schedule timing and duration of teaching sessions for maximum effectiveness.
- Focus on most important knowledge and skills for that particular patient.
- Offer learning through multiple methods to maximize effectiveness (see, hear, touch, discuss, perform).
- Provide reinforcement material for patient to refer back to after the teaching session. On the last pages, a link and QR code are provided for the 2023 Managing Diabetes tools.

When using this education tool to teach patients, remember:

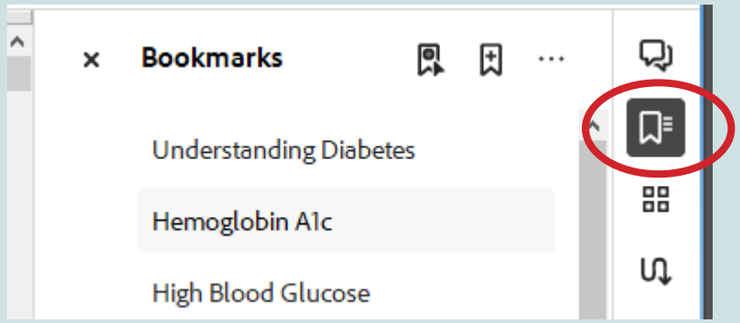
- This tool should be tailored to fit the needs of each patient; they may not need or are ready for all the information.
- The "What to teach your patient" sections are intended as an overview and may be summarized and tailored to fit the needs of each patient.
- This education tool is not intended as a comprehensive diabetes self-management education (DSME).

Components of this education tool:

- Questions for patients ("Do you know...")
- Graphics to help visual learners
- Educator notes are presented in blue on the right of each page and are intended as a script to help you teach the content.
- Questions to Check for the patient's understanding of the content are provided as a guide.

Technology Teaching Tips:

- This tool is intended for use as an electronic teaching/education tool viewed on a computer monitor or tablet.
- **It is not intended for printing.**
- It is intended for sharing the visuals with the patient while the educator is speaking and explaining.
- When using a PDF for teaching, use a reliable PDF reader that will allow the ability to show the bookmarks.
- Use bookmarks (shown at the right) to see the entire document contents and to be able to navigate to different sections as needed.



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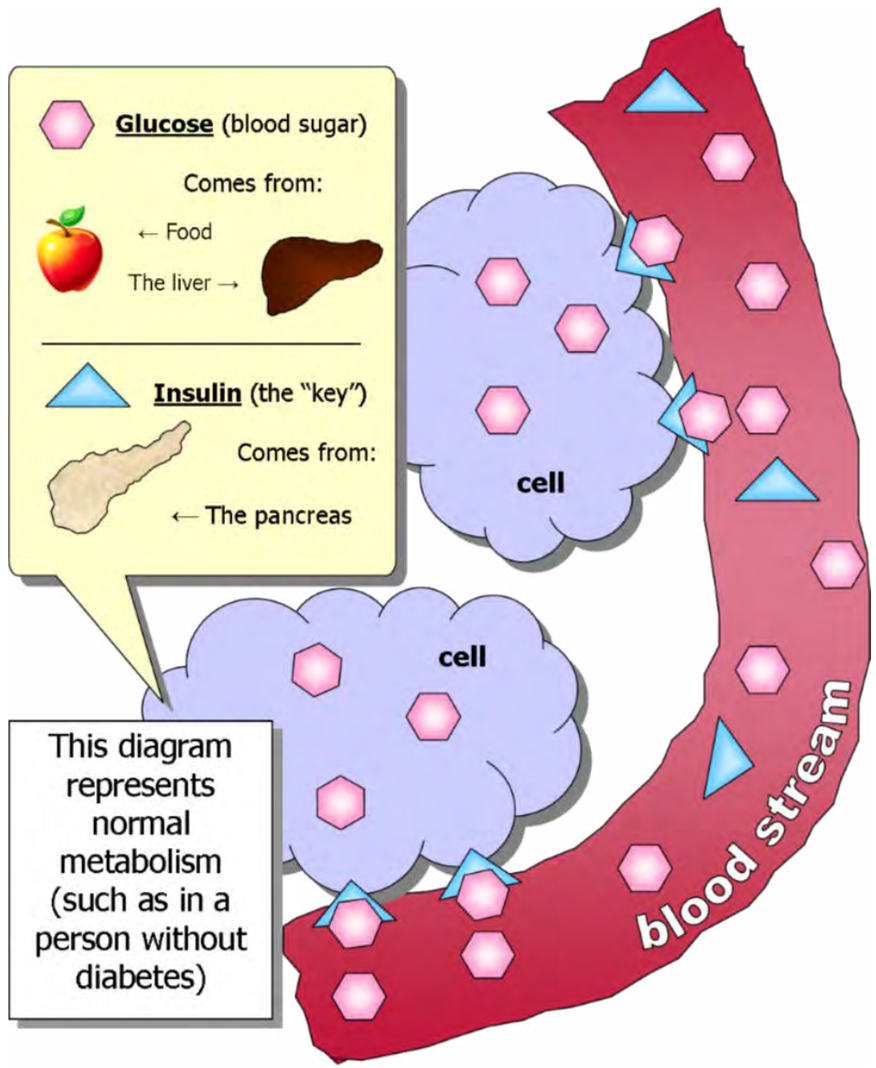
Understanding Diabetes

Do you know...

- What is diabetes?
- What type of diabetes you have and the differences between the types of diabetes?
- How diabetes can affect you now and later?
- What actions can help you control your diabetes?



Educator Notes

- Your body needs sugar (or glucose) in the blood to make energy. Diabetes is a condition in which there is too much sugar in the blood which can be measured with blood tests.
- Blood glucose is burned as energy once inside the cells. Your body needs this fuel to survive. In order to get inside the cells, your body needs a "key". This key is called insulin which is made in the pancreas.
- 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.
- There are several types of diabetes, but most have one of two main types. In type 1 diabetes, the pancreas stops making insulin altogether. A person with type 1 diabetes must take insulin for life. Yet the insulin taken usually works very well to control blood glucose levels.
- 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.
- 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 are: diabetes education, making up your mind to do this, and good support from family and your healthcare team. Learning what you can do is the first step in controlling your diabetes.

Understanding Diabetes

Do you know...

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- What type of diabetes you have and the differences between the types of diabetes?
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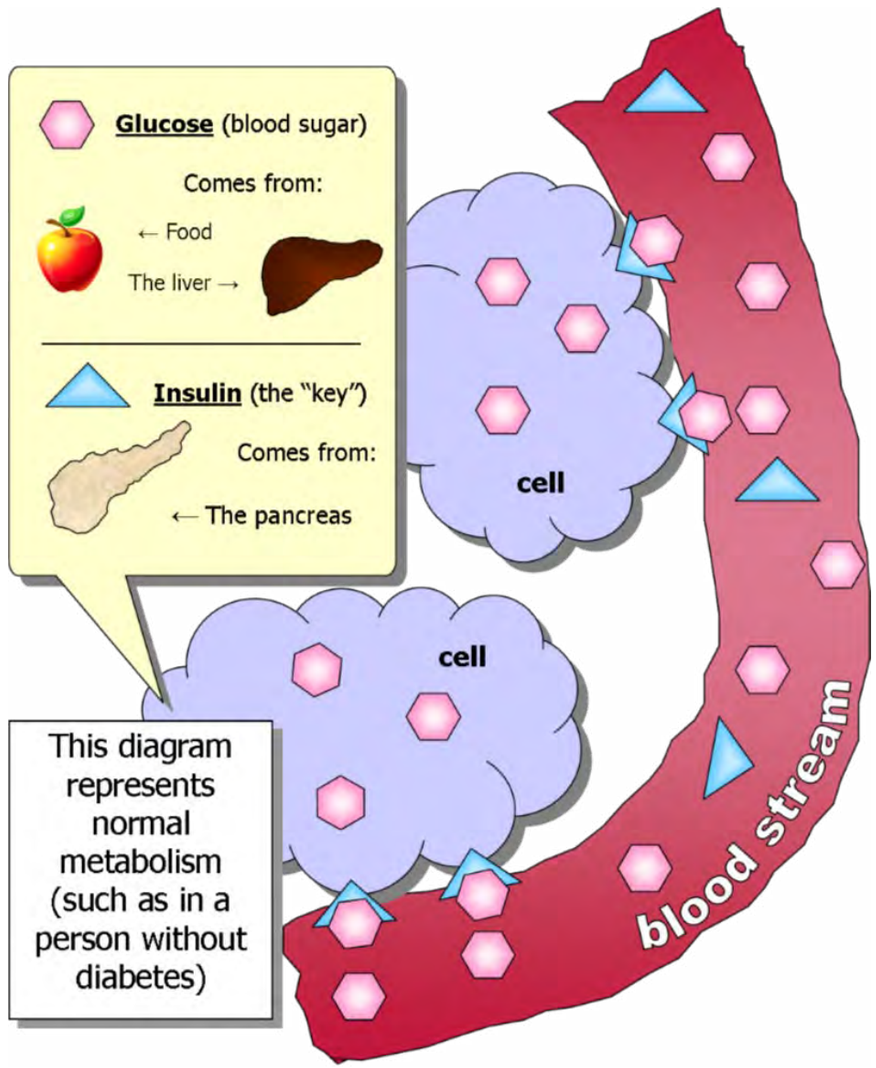


Check for Understanding

Ask the patient if:

- They can accurately state the type of diabetes they have.
- They associate common diabetes and the associated complications with "poor control".
- They verbalize understanding the importance of knowing about aspects of diabetes.
- They express actions and habits that will promote good diabetes control.

Identify Red Flags to Discuss Further

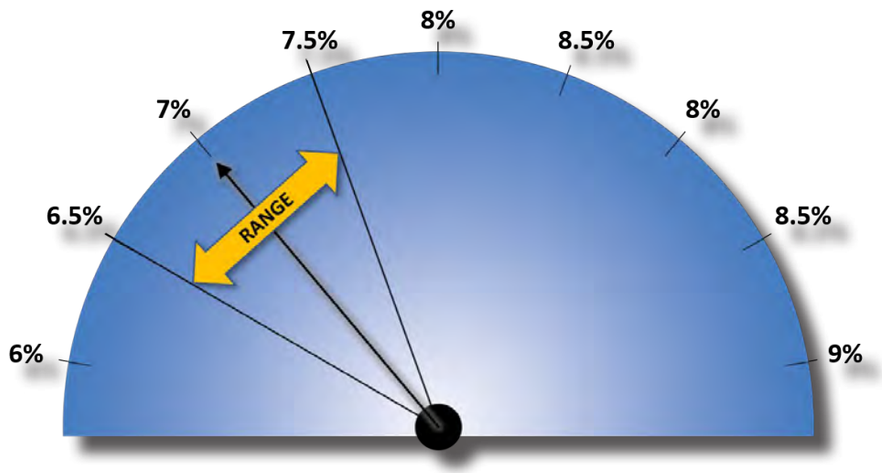
- They do not know what type of diabetes they have.
- They express lack of control over their own health status.
- They express misconceptions about diabetes treatment for their specific type of diabetes.

Hemoglobin A1c

Do you know...

- Why your hemoglobin A1c (HbA1c) level is used to monitor blood glucose control over the past 3 months?
- Why your HbA1c may vary and reflect a range?
- What factors may cause your HbA1c to vary?
- Why you and your healthcare provider should both discuss and agree on your target HbA1c?

Hemoglobin A1c (HbA1c) reflects your average blood glucose over the past three months.



Talk with your healthcare provider to make sure you both agree on your target HbA1c to help avoid problems with dangerous low blood glucose

Educator Notes

- 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.
- An HbA1c lab test result is similar to the reading on a speedometer on a car because the numbers may not always match.
- Speedometers are not 100% accurate and can be off one way or the other. You could be going faster or slower than the speedometer shows.
- For example, when the speedometer reads "35 mph" it might be 35 plus or minus 3 mph. To be on the safe side, you decide to drive at 32 mph. The speedometer says 7.0%. However, many labs use a test where the results can be plus or minus 0.5%. Even though the test says your result is 7.0%, 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/hemoglobinopathies.
- Talk with your healthcare provider to make sure you both agree on your target HbA1c to avoid problems with dangerous low blood glucoses.

Hemoglobin A1c

Do you know...

- Why your hemoglobin A1c (HbA1c) level is used to monitor blood glucose control over the past 3 months?
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- Why you and your healthcare provider should both discuss and agree on your target HbA1c?

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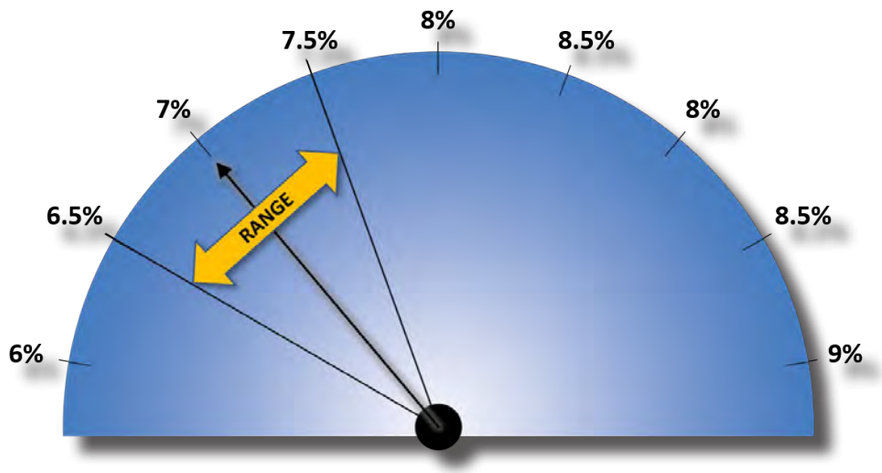

Talk with your healthcare provider to make sure you both agree on your target HbA1c to help avoid problems with dangerous low blood glucose

Check for Understanding

Ask the patient if:

- They can accurately state that the HbA1c is a test that reflects average blood glucose over the past three months.
- They verbalize understanding that HbA1c test can vary and too low a reading can reflect dangerous low blood glucose.
- They engage in desire to discuss safe HbA1c range with provider.

Identify Red Flags to Discuss Further

- They do not know HbA1c test measures average blood glucose for 3 months.
- They do not know that too low an HbA1c test can mean the possibility of low blood glucose.
- They express the belief that only the provider sets an HbA1c goal without patient input.
- They do not understand that all lab tests have some error.

High Blood Glucose
(Hyperglycemia)

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?

High Blood Glucose can lead to injuries to your:

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

Educator Notes

- High blood glucose is also called hyperglycemia, which means "too much sugar in the blood". Your provider will discuss your target ranges with you.
- Some signs of high blood glucose include thirst, having to urinate often, hunger, dry skin or mouth, or slow healing of wounds. You may also feel tired, nauseous, or have a headache.
- 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.
- 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. If you notice a trend of high blood glucoses, 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 sugar into your blood. Other kinds of stress can also cause your blood glucose to go higher. If you think a high blood glucose may be due to infection or illness, you need to contact your provider right away.

High Blood Glucose
(Hyperglycemia)

Do you know...

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- What causes high blood glucose?
- What to do about high blood glucose?

High Blood Glucose can lead to injuries to your:

- Eyes
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Check for Understanding

Ask the patient if:

- They can clearly identify their own signs or symptoms of hyperglycemia.
- They can state reasons that their blood glucose may be high (not taking meds, eating too much, no activity, illness, etc.).
- They can state when to contact their provider for hyperglycemia.
- They can describe how to check ketones when needed.

Identify Red Flags to Discuss Further

- They cannot identify blood glucose values that are above target range.
- They believe it is better to keep blood glucose high, to avoid lows.
- They have constant thirst, urination, and fatigue.

Low Blood Glucose

(Hypoglycemia)

Do you know...

- How low is too low?
- How to recognize low blood glucose?
- What causes low blood glucose?
- What to do about low blood glucose?
- How to use glucagon?

Rule of 15

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

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

Example Prescription Glucagon Kit

Example of a Prescription Glucagon Inhaler

Educator Notes

- Like blood glucose that is too high, blood glucose that is too low is also not good for the body. Low blood glucose is also called hypoglycemia, which means "too little sugar in the blood". Your provider will set your target ranges. Hypoglycemia is defined as blood glucose less than 70 mg/dL.
- Common signs and symptoms of low blood glucose include 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 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.
- Treatment for low blood glucose is based on the "Rule of 15".
  - 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.

Low Blood Glucose

(Hypoglycemia)

Do you know...

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- How to recognize low blood glucose?
- What causes low blood glucose?
- What to do about low blood glucose?
- How to use glucagon?

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Example Prescription Glucagon Kit

Example of a Prescription Glucagon Inhaler

Educator Notes

- In extreme case of hypoglycemia, it is possible to become unconscious.
- 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.

Low Blood Glucose
(Hypoglycemia)

Do you know...

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- How to recognize low blood glucose?
- What causes low blood glucose?
- What to do about low blood glucose?
- How to use glucagon?

Rule of 15

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

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

Example Prescription Glucagon Kit

Example of a Prescription Glucagon Inhaler

Check for Understanding

Ask the patient if:

- They can clearly identify their own signs or symptoms of low blood glucose.
- They can state reasons their blood glucose may drop (not eating, exercise, etc.).
- They have a plan to treat low blood glucose at all times and places.
- They confirm friends and family are aware of risks and know how to help with lows.

Identify Red Flags to Discuss Further

- They do not carry any glucose source despite being at risk for hypoglycemia.
- They have a history of severe lows on insulin, but do not have glucagon and/or do not have someone who knows how to use it.
- They purposely keeps blood glucose high to avoid hypoglycemia.

Checking & Monitoring Blood Glucose

Do you know...

- Why you need to check your blood glucose?
- How to check your blood glucose?
- Your blood glucose target range?
- When and how often to check?
- How to get supplies?

Educator Notes

- It is important to check your blood glucose as directed so you will know if you are in your **target range**. Your blood glucose levels, checked using a blood glucose meter, 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.
- All meters require a small sample of blood and the 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 with 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.
  - HAVE THE PATIENT DEMONSTRATE TESTING WITH THEIR OWN METER.
- 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. 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.
- 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.

Checking & Monitoring Blood Glucose

Do you know...

- Why you need to check your blood glucose?
- How to check your blood glucose?
- Your blood glucose target range?
- When and how often to check?
- How to get supplies?

Check for Understanding

Ask the patient if:

- They demonstrate blood glucose testing procedure with proper technique.
- They verbalize the importance of regular checking.
- They can identify blood glucose values that are in and out of target range.
- They have a meter and can state how to obtain supplies.

Identify Red Flags to Discuss Further

- They do not check blood glucose.
- They only check at times blood glucose will be in target range.
- They cannot demonstrate proper procedure for checking blood glucose.
- Their blood glucose values do not match HbA1c range.

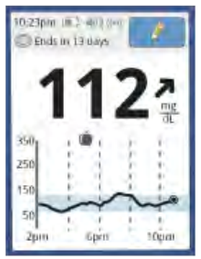
Continuous Glucose Monitoring

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.
- Your provider may customize your high and low alerts?
- Some substances may interfere with measurements? Refer to this list or go to diabetes.org for a list of substances.

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

Example of continuous glucose monitor type



Examples of device reader and smart phone display

Educator Notes

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

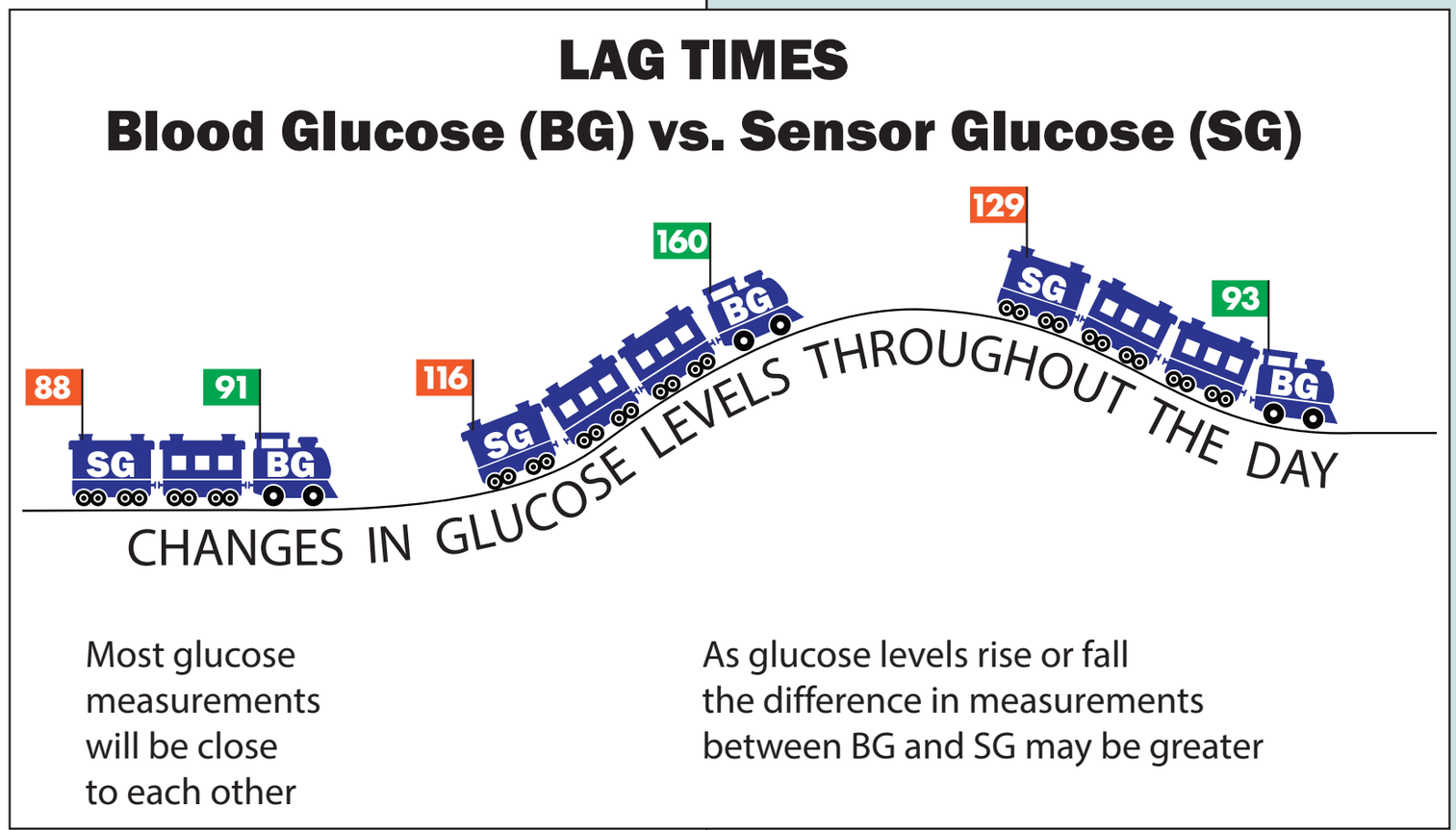
Finger Stick vs. CGM

Do you know...

- **There may be "lag times" between the types of tests?**
  - 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 October 2023)
    - Abbott 855-632-8658
    - Dexcom 888-738-3646
    - Eversense 844-736-7348
    - FreeStyle Libre 855-632-8658
    - Medtronic Guardian 800-646-4633
    - Senseonics 800-348-8100

Educator Notes

- There may be "lag times" between the types of tests.
- 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.
- Contact the manufacturer for replacements or technical support, not the clinic or provider.



Sick Days

Do you know...

- How often to check your blood glucose when sick?
- How to take your diabetes medicine if you are sick or not eating?
- What foods you can eat if you are sick?
- When to call your healthcare provider?
- When and how to check for ketones?

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

Educator Notes

- Check blood glucose more often when you are ill, especially if you are not eating. Check blood glucose about every four hours.
- 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.
- It is important to eat when 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 Jello®, Gatorade®, applesauce, crackers, yogurt, or popsicles.
- 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.
- For repeated high blood glucose above 250 mg/dL, you may need to check urine or blood ketones. 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.

Sick Days

Do you know...

- How often to check your blood glucose when sick?
- How to take your diabetes medicine if you are sick or not eating?
- What foods you can eat if you are sick?
- When to call your healthcare provider?
- When and how to check for ketones?

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).

Educator Notes

- One of the most important goals when sick is to prevent dehydration. 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.
- 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.
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Sick Days

Do you know...

- How often to check your blood glucose when sick?
- How to take your diabetes medicine if you are sick or not eating?
- What foods you can eat if you are sick?
- When to call your healthcare provider?
- When and how to check for ketones?

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).

Check for Understanding

Ask the patient if:

- They can explain when and how to check urine or blood ketones.
- They can list signs of dehydration.
- They state the importance of taking diabetes medication.
- They state alternative foods for sick days.
- They verbalize understanding when to call the provider or seek emergency medical care.

Identify Red Flags to Discuss Further

- They state they will not take any diabetes medication if sick.
- They state they checks blood glucose less often when sick.
- They cannot state the association between illness and high blood glucose.
- They cannot list actions to prevent dehydration.

Diabetes Medications

Do you know...

- What diabetes medications you will take?
- How to get your medication?
- What your doses are?
- When to take it?
- Possible side effects?
- To contact your healthcare team if you have repeated lows?

Educator Notes

- GIVE THE PATIENT AN APPROPRIATE MEDICATION HANDOUT; FILL IN ANY APPLICABLE INFORMATION IF NEEDED.
- FOCUS ON ACTION, SIDE EFFECTS AND CONSIDERATIONS OF ONLY THE MEDICATIONS THE PATIENT IS PRESCRIBED (REFER TO MEDICATION HANDOUT).
- ANSWERS TO "DO YOU KNOW" QUESTIONS WILL BE SPECIFIC TO THE PATIENT'S MEDICATION AND SITUATION.
- There are many different medications for diabetes. They work in different ways. Medications are grouped in "classes" according to how they lower blood glucose in the body.
- Be aware of possible side effects. If hypoglycemia is a possible side effect, be sure that you time your meals and medication appropriately. If you notice that you experience hypoglycemia 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.
- Certain medications may not be appropriate for all patients. Let your provider know about any medical conditions you have, such as kidney, liver, or heart problems. Also, talk to your provider about other medications you are taking so that he or she can select a diabetes medication that will not interfere with your other medications.
- 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.

Diabetes Medications

Do you know...

- What diabetes medications you take?
- How to get your medication?
- What your doses are?
- When to take it?
- Possible side effects?
- To contact your healthcare team if you have repeated lows?

Check for Understanding

Ask the patient if:

- They associate name brand with generic name.
- They can explain how the medication lowers blood glucose.
- They recognize common side effects of the medication.
- They know the correct time to take medication and what to do if a dose is missed.
- They have a plan for timely refills.

Identify Red Flags to Discuss Further

- They do not consider possible side effects (hypoglycemia).
- They do not remember doses or states inappropriate times.
- They state will skip medications at inappropriate times.
- They are not sure where or how to get medication.
- They forget medications often when eating out.

Medication Safety

Do you know...

- About proper storage of your medications?

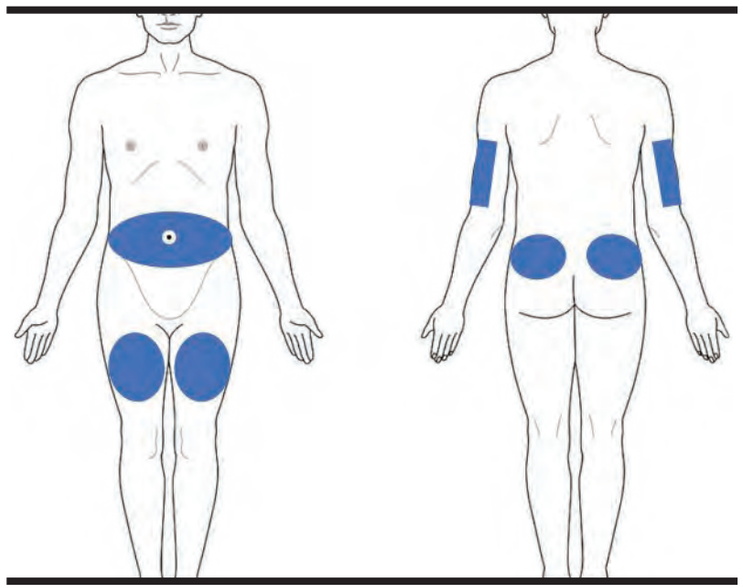
Educator Notes

- 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.
- 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.
- 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.
  -

Taking Your Insulin

Do you know...

- What kind(s) of insulin you take?
- When to take insulin (and when not to take it)?
- How much to take?
- How to take?
- Where you have enough fat for the best injection site?
- How to store insulin and how long you can use it?



Ask your healthcare professional where the best place is for you to inject your insulin.

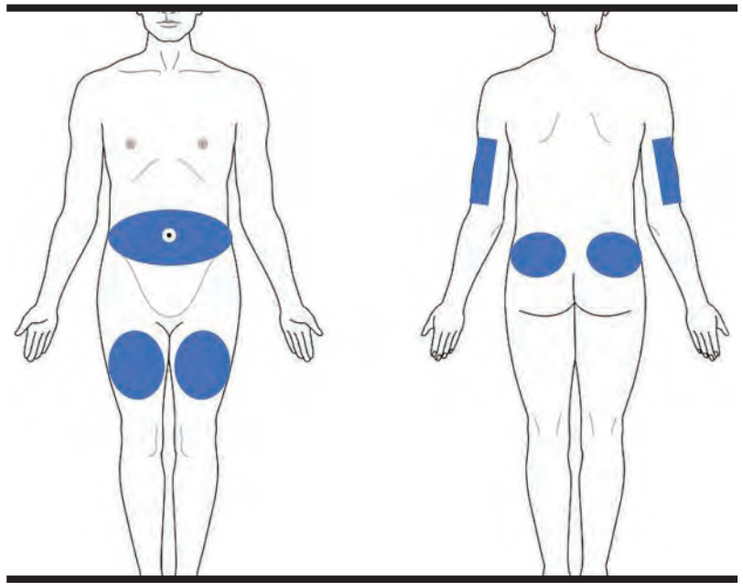
Educator Notes

- GIVE THE PATIENT APPROPRIATE INSULIN HANDOUTS: INJECTION TECHNIQUES, INSULIN OVERVIEW, ETC.
- 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 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.
- 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. The diagram shows some appropriate injection sites. 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 and dispose used needles according to the laws in your state.
- Anyone taking insulin should be prepared to treat low blood glucose.
- Demonstrate giving an insulin injection. (ASK PATIENT TO DEMONSTRATE INSULIN INJECTION)

Taking Your Insulin

Do you know...

- What kind(s) of insulin you take?
- When to take insulin (and when not to take it)?
- How much to take?
- How to take?
- Where you have enough fat for the best injection site?
- How to store insulin and how long you can use it?



Ask your healthcare professional where the best place is for you to inject your insulin.

Check for Understanding

Ask the patient if:

- They can correctly state their prescribed insulin dose.
- They can explain the duration of action in general terms.
- They verbalize understanding that long acting insulin should not be skipped if not eating.
- They demonstrate insulin injection with pen or syringe using proper technique.
- They verbalize importance of rotating injection sites.

Identify Red Flags to Discuss Further

- They mix up names of insulin.
- They do not remember doses.
- They state they will skip insulin at inappropriate times.
- They miss steps in demonstrating insulin injection technique.
- They state they may use insulin beyond expiration date or usage time.

Insulin Storage & Expiration Dates

Do you know...

- How to store insulin and how long you can use it?
- 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.
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- Most insulin should be thrown away 28 days after first use; some are even less.

Educator Notes

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Diabetes, Stress & Healthy Coping

Do you know...

- Diabetes stress is the emotional response to living with diabetes?
- Identifying and addressing the sources of stress can help reduce the burden of managing your diabetes?
- What healthy coping means and how it can help you?

Educator Notes

- 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.
- 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 healthy coping means and how it can help you?
  - 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.

Diabetes Care Team

Do you know...

- It takes a team to manage diabetes?
- You are the key member of the team?
- You manage your diabetes?
- 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?

SHARE

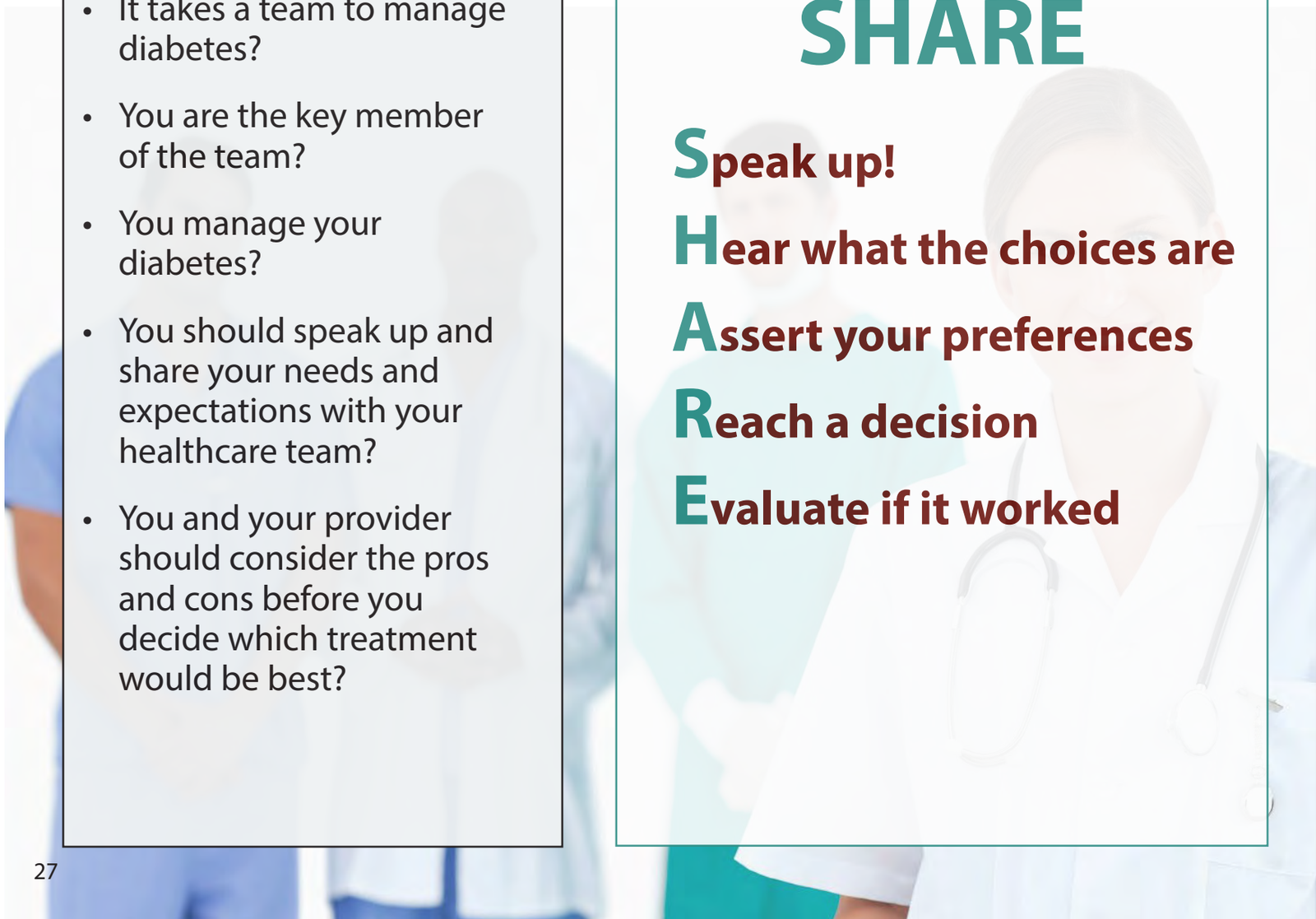
Speak up!

Hear what the choices are

Assert your preferences

Reach a decision

Evaluate if it worked



Educator Notes

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 (commonly referred to as 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: 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: 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: Your provider should **Assess** your values and preferences. Your role is to **Assert** your preferences and values. Let your provider know what is important to you, even if it is different from what they feel is important. Talk about how you feel about diabetes, your likes and dislikes, what you are willing to try, how much you can take on, and what your priorities are. It is important to keep an open mind as you discuss what treatment options there are and be willing to at least try to see if one may work for you.

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: 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.

Diabetes Care Team

Do you know...

- It takes a team to manage diabetes?
- You are the key member of the team?
- You manage your diabetes?
- 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?

SHARE

Speak up!

Hear what the choices are

Assert your preferences

Reach a decision

Evaluate if it worked

Check for Understanding

Ask the patient if:

- They have an interest in learning about diabetes.
- They understand the importance of talking with a healthcare professional about their diabetes.
- They express confidence that their provider or healthcare team listens to and values their opinion.
- They know of potential barriers to manage their diabetes.
- They recognize that their initial treatment plan may need to change.

Identify Red Flags to Discuss Further

- They believe they should do "whatever the provider says".
- They state they are unable to talk to their provider.
- They do not believe their provider will listen to them.
- They verbalize a lack of confidence to take care of themselves.

Shared Decision Benefits & Setting Goals

Do you know...

- How to approach goal setting?
- The benefits when patients engage in Shared Decision Making?

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?

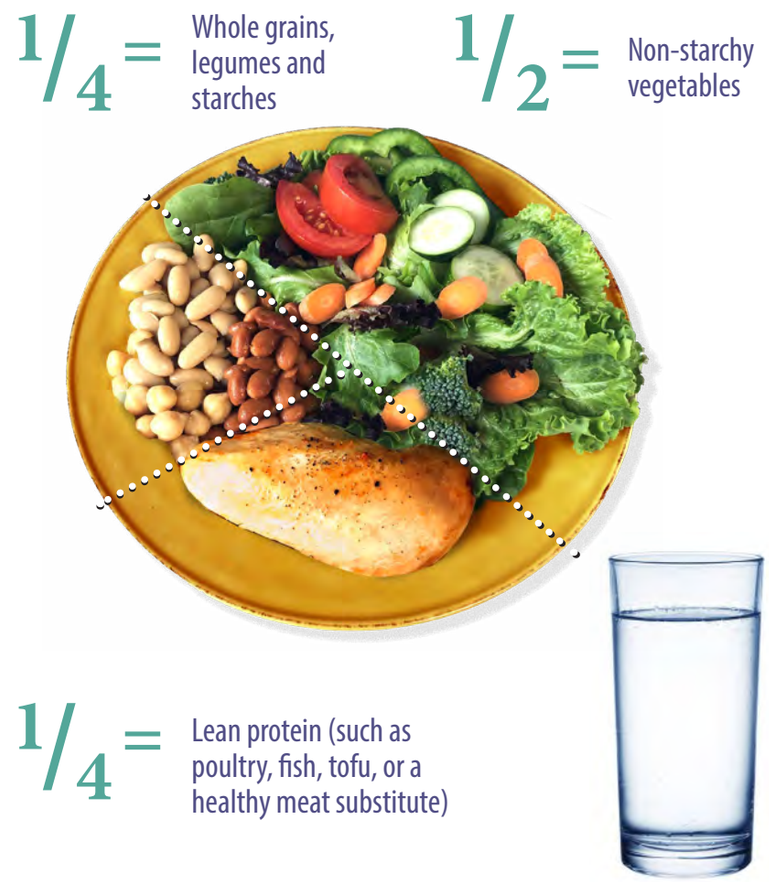
Educator Notes

- How to approach goal setting?
  - 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.
- The benefits when patients engage in Shared Decision Making?
  - 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.

Healthy Eating

Do you know...

- How you should eat when you have diabetes?
- How often should you eat?
- How to recognize foods that affect your blood glucose the most?
- What a Mediterranean/ DASH-style eating pattern is?
- An easy way to "measure" portions?
- How to choose healthy carbohydrates?



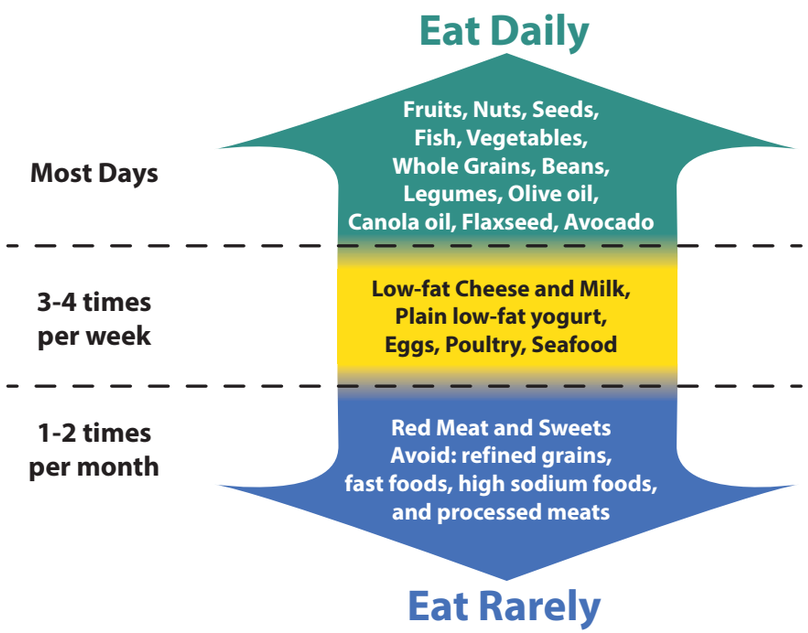
Educator Notes

- People with diabetes should eat balanced meals of healthy foods from all food groups spread evenly throughout the day. Try to eat meals at regular times and take your time.
- 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. You should limit the amount of sweets you eat.
- Following a low to moderate carbohydrate diet (for example, a Mediterranean/DASH-style eating pattern) is effective for improving blood glucose, weight, cholesterol and blood pressure.
  - One half the plate should have non-starchy vegetables. One quarter will have protein. The last quarter should be whole grains, legumes and starches.
  - Your provider or a dietitian can help decide which approach is best for you and how much carbohydrates you should have at each meal.
- Eating dietary fiber is beneficial for your blood glucose, cardiovascular disease, weight loss and overall health. Increase fiber slowly by adding whole grain products, skin-on fruits and vegetables, and legumes. Aim for about 25-30 grams fiber each day.
- Drink 6-8 glasses of water each day. Limit beverages to sugar-free options and limit fruit juice and sweetened drinks.
- If you are overweight, focus on eating fewer calories or weight loss of 3-5%. For healthy weight: decrease fat intake and use a 9-inch plate can help control carbohydrate amount and portion sizes.
- Eat healthy fats such as olive oil, avocados, and flax seed. Eat more lean skinless poultry, fish, beans, tofu, eggs, or low-fat cheeses. Choose foods that are grilled or baked, not fried.
- Limit alcohol intake. No more than one serving for a woman and two for a man per day. Check with your provider.

Healthy Eating

Do you know...

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



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Check for Understanding

Ask the patient if:

- States the importance of eating balanced meals of healthy foods throughout the day.
- Understands not to skip meals.
- Can identify foods that are made up of carbohydrates.
- Understands carbohydrates have the biggest impact on blood glucose.
- Can identify examples of foods that should be placed on each part of the plate.

Identify Red Flags to Discuss Further

- States he or she can never have anything "good" or favorite foods again.
- Advocates for use of fad diets.
- Eats out excessively.
- Drinks beverages containing sugar.
- Eats a lot of processed and refined foods.

The Nutrition Facts Label

Do you know...

- How reading nutrition facts panels (food labels) can help you to better manage your diabetes?
- What to do if your serving size is different from the serving size on the nutrition facts label?
- Why it is important to evaluate the grams of total carbohydrates, rather than only the grams of sugar?
- Where to find nutrition information for foods without packages (produce, seafood, bulk grains, etc.)?

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.

Ingredients are listed in descending order by weight, so the ingredient that weighs the most is listed first, and the ingredient that weighs the least is listed last.

Ingredients: Bulgur Wheat, Sauce (Water, Half and Half [Milk, Cream], Parmesan Cheese [Pasteurized Skim Milk, Cultures, Salt, Enzymes], Cheddar Cheese [Pasteurized Milk, Cultures, Salt, Enzymes], Olive Oil, Butter, Sugar, Xanthan Gum, Spice), Lentils, Corn, Green Beans, Red Beans, Potatoes.
Contains: Wheat, Milk

Educator Notes

- Read the nutrition facts labels on foods and beverages. Note the item's serving size and total carbohydrates. 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.
- Although the ingredient list is not part of the Nutrition Facts label, it is a helpful tool. The ingredient that weighs the most is listed first, and the ingredient that weighs the least is listed last.
  - Look for foods with heart-healthy ingredients, such as whole-wheat flour, soy and oats. Mono-unsaturated fats (e.g., olive, canola or peanut oils) may also promote heart health.
  - Avoid unhealthy ingredients, such as hydrogenated or partially hydrogenated oil.
  - For foods without packages, look for nutrition information on a nearby sign. If you can't find a nutrition label for one of these foods, talk to the store manager. There are also many phone apps that can provide nutrition information. Talk to a dietitian or your healthcare team for suggestions.
- Use the 5% and 20% quick label-reading guide for other nutrients on the label. This guide can show how a food fits into your daily diet. 5% Daily Value or less is low. 20% Daily value is high. For example, you may want to consume a lower sodium diet. Choose foods with a low % Daily Value for sodium if you want to consume less sodium. If you want to eat a high amount of a nutrient, choose foods with a 20% Daily value of that nutrient.

The Nutrition Facts Label

Do you know...

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- What to do if your serving size is different from the serving size on the nutrition facts label?
- Why it is important to evaluate the grams of total carbohydrates, rather than only the grams of sugar?
- Where to find nutrition information for foods without packages (produce, seafood, bulk grains, etc.)?

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Amount per serving

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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%
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Ingredients are listed in descending order by weight, so the ingredient that weighs the most is listed first, and the ingredient that weighs the least is listed last.

Ingredients: Bulgur Wheat, Sauce (Water, Half and Half [Milk, Cream], Parmesan Cheese [Pasteurized Skim Milk, Cultures, Salt, Enzymes], Cheddar Cheese [Pasteurized Milk, Cultures, Salt, Enzymes], Olive Oil, Butter, Sugar, Xanthan Gum, Spice), Lentils, Corn, Green Beans, Red Beans, Potatoes.
Contains: Wheat, Milk

Check for Understanding

Ask the patient if:

- They correctly identify serving size, carbohydrate and fiber content, and added sugars as key points on a label.
- They understand the difference between "total sugars" and "added sugars."
- They can identify foods to increase dietary fiber.
- They identify healthy and unhealthy ingredients on the food label.

Identify Red Flags to Discuss Further

- They only count sugars on label and not total carbohydrates.
- They often drinks sugary beverages.

Being Active - Physical Activity

Do you know...

- Why it is important to be physically active?
- How physical activity will impact your blood glucose?
- How much physical activity you need?
- What type of exercise is best for you?
- What steps to take before beginning a program?
- How to overcome barriers to being physically active?

Educator Notes

- Physical activity improves blood glucose by helping insulin work better. Benefits include weight loss, lower blood pressure, lower cholesterol, increased strength, better rest and an increased sense of well being.
- 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.
- If your blood glucose is above 300 mg/dL, exercise may not be safe. Check with your provider.
- 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.
- 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 before your work place or home 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!
- The key to a successful activity plan is commitment and good planning. Find a way to fit it into your schedule. 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.

Being Active - Physical Activity

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- Why it is important to be physically active?
- How physical activity will impact your blood glucose?
- How much physical activity you need?
- What type of exercise is best for you?
- What steps to take before beginning a program?
- How to overcome barriers to being physically active?

Check for Understanding

Ask the patient if:

- They correctly list benefits of being physically active.
- They understand the lowering effect of exercise on blood glucose.
- They express an appropriate plan for physical activity that includes at least 30 minutes on most days of the week.
- They identify potential barriers to physical activity and plan for addressing these barriers.

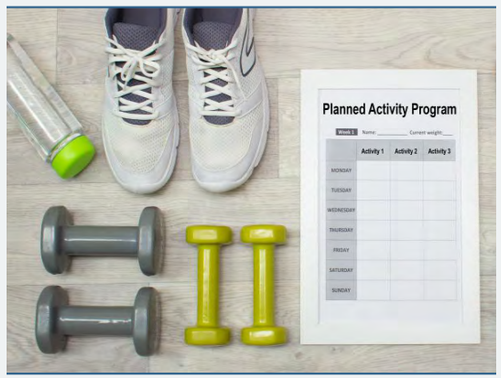
Identify Red Flags to Discuss Further

- They do not believe physical activity has any benefits.
- They state they experience low blood glucose when physically active.
- They believe excessive amounts of exercise is needed.
- They exercise in lieu of taking medication.

Being Active - Physical Activity

Do you know...

- 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 before your work place or home 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!
- **Commitment & Planning**
  - The key to a successful activity plan is commitment and good planning.
  - Find a way to fit it into your schedule.
  - 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.



Educator Notes

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- Commitment & Planning
- The key to a successful activity plan is commitment and good planning.
- Find a way to fit it into your schedule.
- 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.
- Create a personal plan.
  - 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.

Before Physical Activity

Do you know...

Not on Insulin

- Check blood glucose.
- Eat a snack if blood glucose is <90 mg/dL
  - 15-30 grams of "carbs"
- What are some examples of snacks with 15-30 grams of carbs?

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 hypoglycemia up to 14 hours post physical activity.

Educator Notes

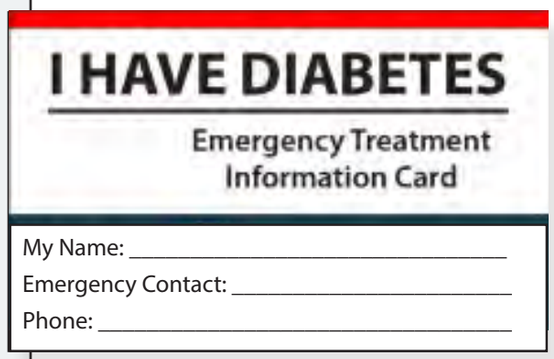
- Before you engage in physical activities, you should follow several steps to ensure your safety.
- If you are on insulin:
  - Check blood glucose.
  - Eat a snack if blood glucose is <90 mg/dL
  - 15-30 grams of "carbs"
  - What are some examples of snacks with 15-30 grams of carbs?

- If you are not 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 hypoglycemia up to 14 hours post physical activity.

Diabetic Specific Safety Tips

Do you know...

- 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.



Educator Notes

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- Discuss with your healthcare team if medication adjustments are needed for your selected activity.
- Stay hydrated. Drink plenty of water.

General Safety Tips

Do you know...

- 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.

Educator Notes

- Always carry identification.
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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

Educator Notes

- Things to consider about having a plan for disasters.
  - 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?
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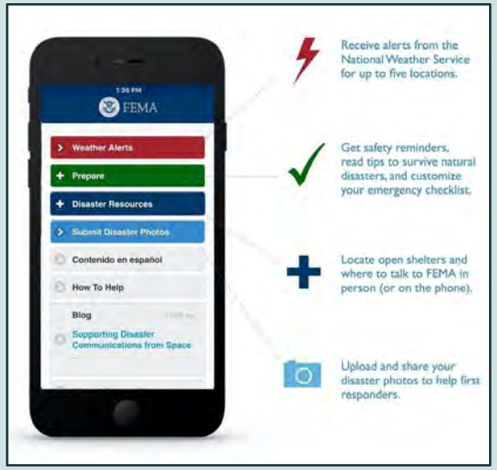
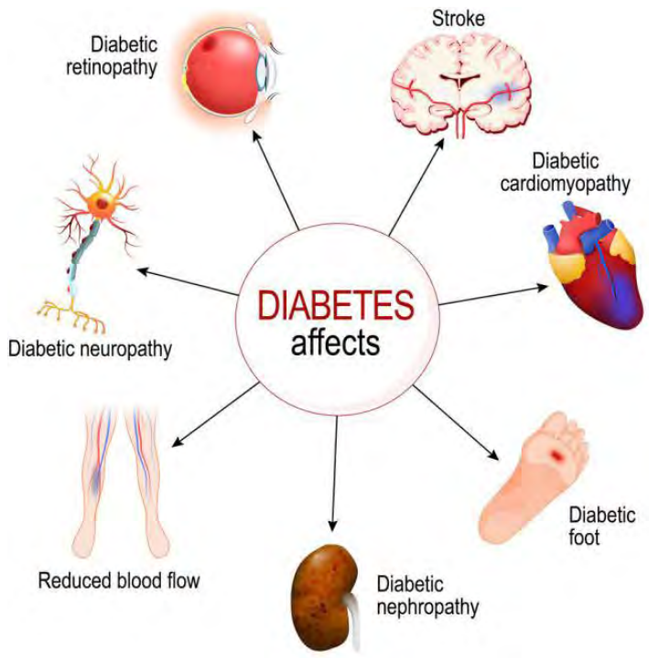


Modifying Activities

Do you know...

- 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.



Educator Notes

- Some activities may need to be modified if you have other medical issues that may or may not be related to your diabetes.
- If you have Retinopathy (a complication of diabetes that affects the eyes):
  - Avoid exercises that put pressure on the head and eyes.
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- If you have Cardiac (heart) Issues:
  - Check with your provider about what exercise activities are safe for you.
  - Avoid strenuous exercise and heavy lifting.

Diabetes ABC's & Reducing Risk

Do you know...

- What happens to the heart, nerves, kidneys and other organs when blood glucose stays high?
- Why it is important to manage your blood pressure?
- Why it is important to treat high cholesterol?
- The importance of not smoking?
- The importance of good foot care?
- The importance of regular eye exams?
- Diet and exercise are important to help manage high blood glucose, high blood pressure, and high cholesterol?

A $_{1C}$ **levels**

B **lood pressure**

C **holesterol**

Educator Notes

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

Diabetes ABC's & Reducing Risk

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- What happens to the heart, nerves, kidneys and other organs when blood glucose stays high?
- Why it is important to manage your blood pressure?
- Why it is important to treat high cholesterol?
- The importance of not smoking?
- The importance of good foot care?
- The importance of regular eye exams?
- Diet and exercise are important to help manage high blood glucose, high blood pressure, and high cholesterol?

A$_{1C}$ **levels**

Blood pressure

Cholesterol

Check for Understanding

Ask the patient if:

- They identify risk for complications related to prolonged high blood glucose.
- They state the importance of taking blood pressure medicine daily.
- They know the role of diet and exercise in managing high blood glucose, high blood pressure, and high cholesterol levels.
- If a smoker, they express a desire to quit.
- They understand the steps in proper foot care.

Identify Red Flags to Discuss Further

- They are not concerned about blood glucose because "they feel fine."
- They state they do not need to take prescribed medication because their blood pressure is fine.
- They believe statins are more damaging than high cholesterol.
- They express no desire to quit tobacco products.
- They have worn shoes, sandals, or evidence of poor foot care.

Problem Solving & Following Up

Do you know...

- When you should see your provider?
- What things to discuss with your provider?
- When to call for help?
- Who to call if you have problems?
- How to follow-up for more diabetes education?
- Your Hemoglobin A1c goal?

Educator Notes

- If you have been hospitalized, you should follow up with the provider who helps you manage your diabetes soon after discharge.
- 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.
- PROVIDE PATIENT WITH NUMBER TO CALL IN CASE OF EMERGENCY HEALTH SITUATIONS (EXCESSIVE HYPERGLYCEMIA, REPEAT HYPOGLYCEMIA, SIGNS OF INFECTION, ETC).
- A family member that lives with you should be informed about your diabetes and know how to help you if you need it. If you live alone, make sure you have a loved one, neighbor or friend you can call who lives close by, in case you need help. Participating in peer support programs, including online groups or chat communities, may increase your awareness of disease processes, and decrease the feeling of isolation often associated with a chronic medical condition.
- As a person with diabetes, YOU have to be your own best advocate! Being an advocate for yourself means having a good knowledge of the disease, your treatment plan, and how diabetes affects you. It is important to have these diabetes self-management skills, which support you in working with your healthcare team. This process of shared decision making allows more control for you, and supports the direction of your diabetes care, and achieve the goals you agree upon.

Problem Solving & Following Up

Do you know...

- When you should see your provider?
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- When to call for help?
- Who to call if you have problems?
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Educator Notes

- Typically, only "survival skills education" is provided in the hospital or when you are first diagnosed. But there is a lot more you need to know about diabetes. You should seek diabetes education soon after diagnosis, and every so often 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 (CDEs) 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.

Problem Solving & Following Up

Do you know...

- When you should see your provider?
- What things to discuss with your provider?
- When to call for help?
- Who to call if you have problems?
- How to follow-up for more diabetes education?
- Your Hemoglobin A1c goal?

Check for Understanding

Ask the patient if:

- They can name situations in which medical attention should be sought.
- They can show you the name and number of whom to call for help.
- They verbalize the importance of following up with their provider.
- They can repeat when and where to get further diabetes education.

Identify Red Flags to Discuss Further

- They state they have "heard it all before" or "already knows it all".
- They have no interest in managing his/her diabetes.
- They have no regular provider with which to follow up.
- They seem unclear on when and who to call for help.

Links to More Information for the Person with Diabetes

- 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 ahrq.gov/professionals/education/curriculum-tools/shareddecisionmaking/tools

Educator Notes

- 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:
  - Who runs or created the site or app? Can you trust them?
  - What is the site or app promising or offering? Do its claims seem too good to be true?
  - When was its information written or reviewed? Is it up-to-date?
  - Where does the information come from? Is it based on scientific research?
  - Why does the site or app exist? Is it selling something?

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.

Links to More Information for the Person with Diabetes

- 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 ahrq.gov/professionals/education/curriculum-tools/shareddecisionmaking/tools

Educator Notes

- 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.
- 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.
- 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.
- Provide the QR code (next page) for the patient to scan to access the available tools at VA/DoD Clinical Practice Guideline for the Management of Diabetes Type 2 Mellitus.

  Available 2023 tools:

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

More Information for the Person with Diabetes

For more information and the available tools on the 2023 VA/DoD Clinical Practice Guideline for the Management of Type 2 Diabetes Mellitus toolkit.

Have the patient scan one of the QR codes here for access to the 2023 Diabetes Self-Care Guide

healthquality.va.gov/healthquality/guidelines/CD/diabetes

https://www.health.mil/About-MHS/MHS-Elements/DVPO/VADOD-CPGs

Check for Understanding

Ask the patient if:

- They can verbalize understanding that not all online diabetes-related information is accurate and reliable.
- They know to discuss online information with healthcare provider(s).
- They recognize ".gov" and ".edu" websites as generally good sources of information.
- They understand how to evaluate online sources of diabetes information.

Identify Red Flags to Discuss Further

- They think all online information is accurate and reliable.
- They have equal (or more) trust in internet sources versus their healthcare team.
- They do not differentiate between .gov, .edu, and .com web addresses.
- They understand that the VA and DoD do not endorse these websites provided.

Additional Information for the Educator

Provider Websites

- National Diabetes Education Program niddk.nih.gov/health-information/communication-programs/ndep
- Centers for Disease Control: Diabetes cdc.gov/diabetes
- National Institute of Diabetes and Digestive and Kidney Diseases niddk.nih.gov/health-information/diabetes
- Agency for Healthcare Research and Quality ahrq.gov/professionals/education/curriculum-tools/shareddecisionmaking/tools

Originally developed by T. Swigert, MSN, RN, CDE and staff at The Diabetes Center of Excellence, Wilford Hall Medical Center, Lackland AFB, TX, 2011.

For more information and the available tools on the 2023 VA/DoD Clinical Practice Guideline for the Management of Type 2 Diabetes Mellitus toolkit, visit healthquality.va.gov/healthquality/guidelines/CD/diabetes or https://www.health.mil/Military-Health-Topics/Access-Cost-Quality-and-Safety/VADOD-CPGs