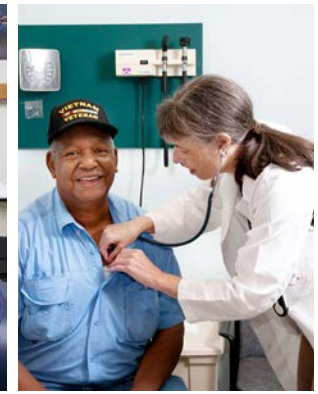
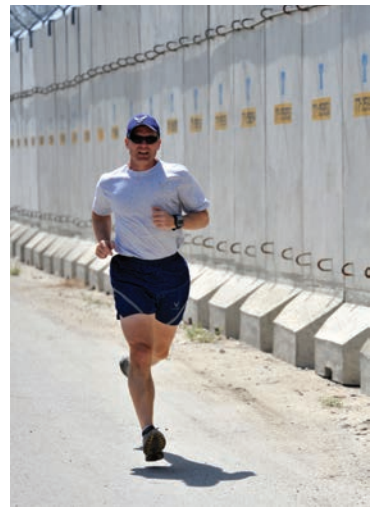
Diabetes Survival Skills Guide

This educational tool is basic information to help you get started understanding your diabetes and how to live well with it.





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

Contents of 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.

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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**.

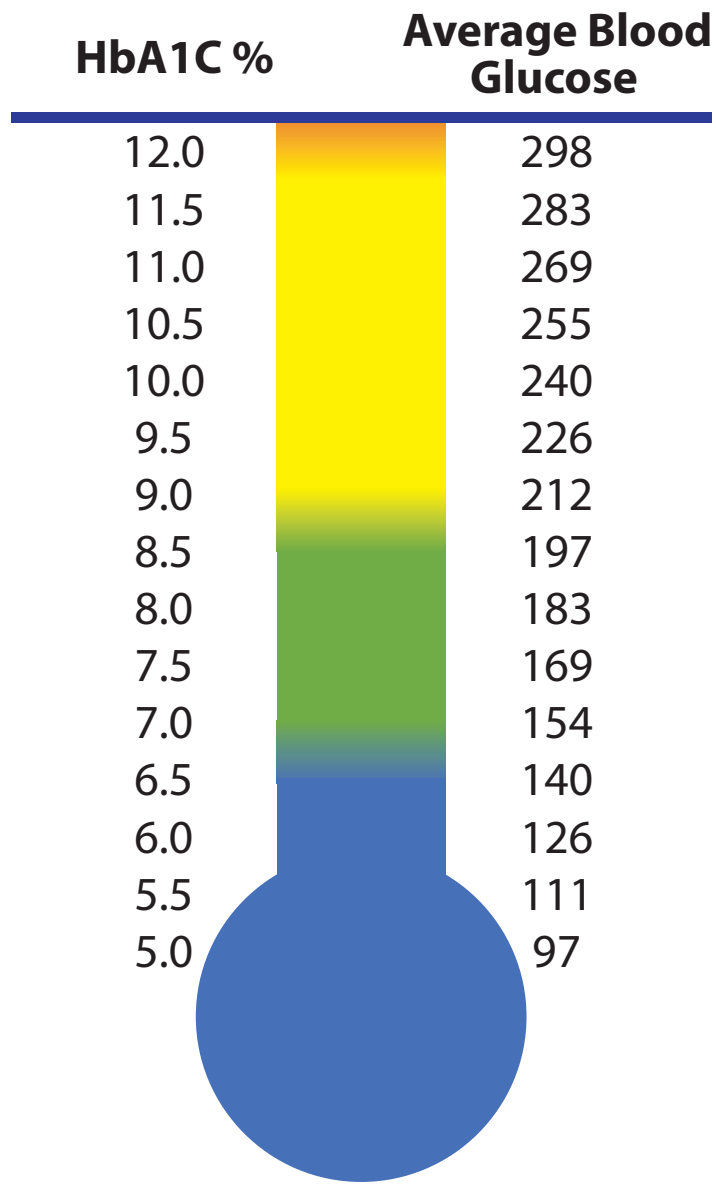
A1c Test

Do you know...

what the A1c test is a 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.



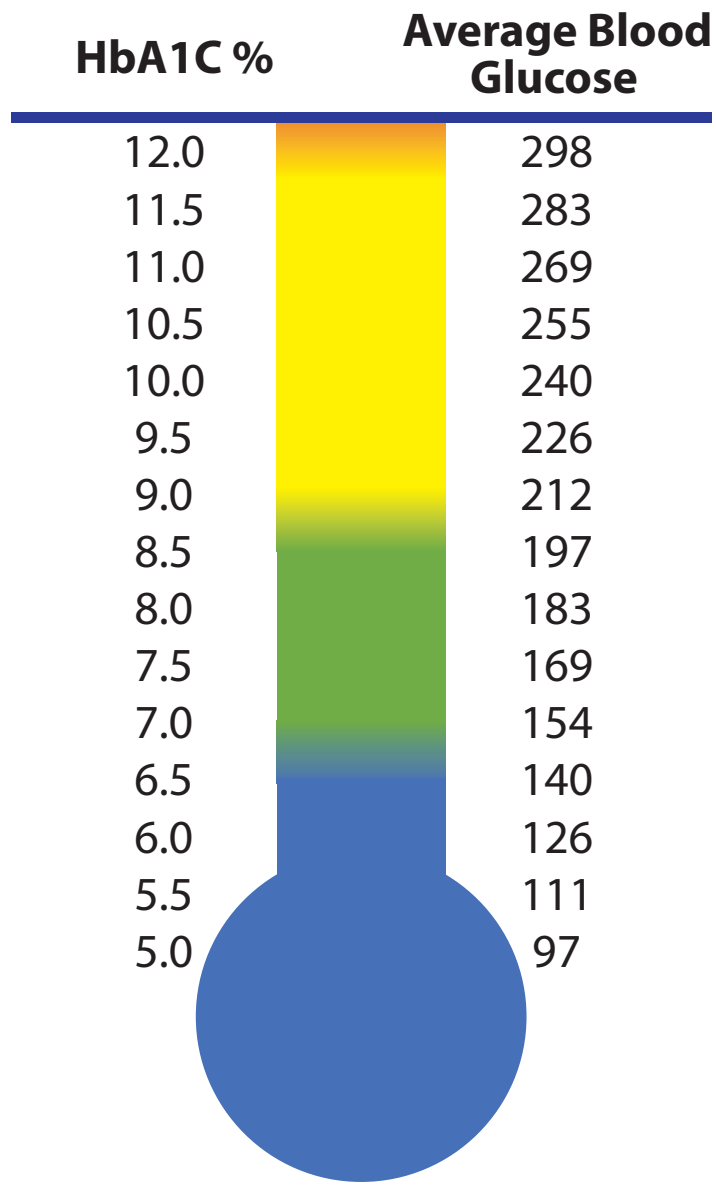
Know your A1c number

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

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

Low Blood Glucose

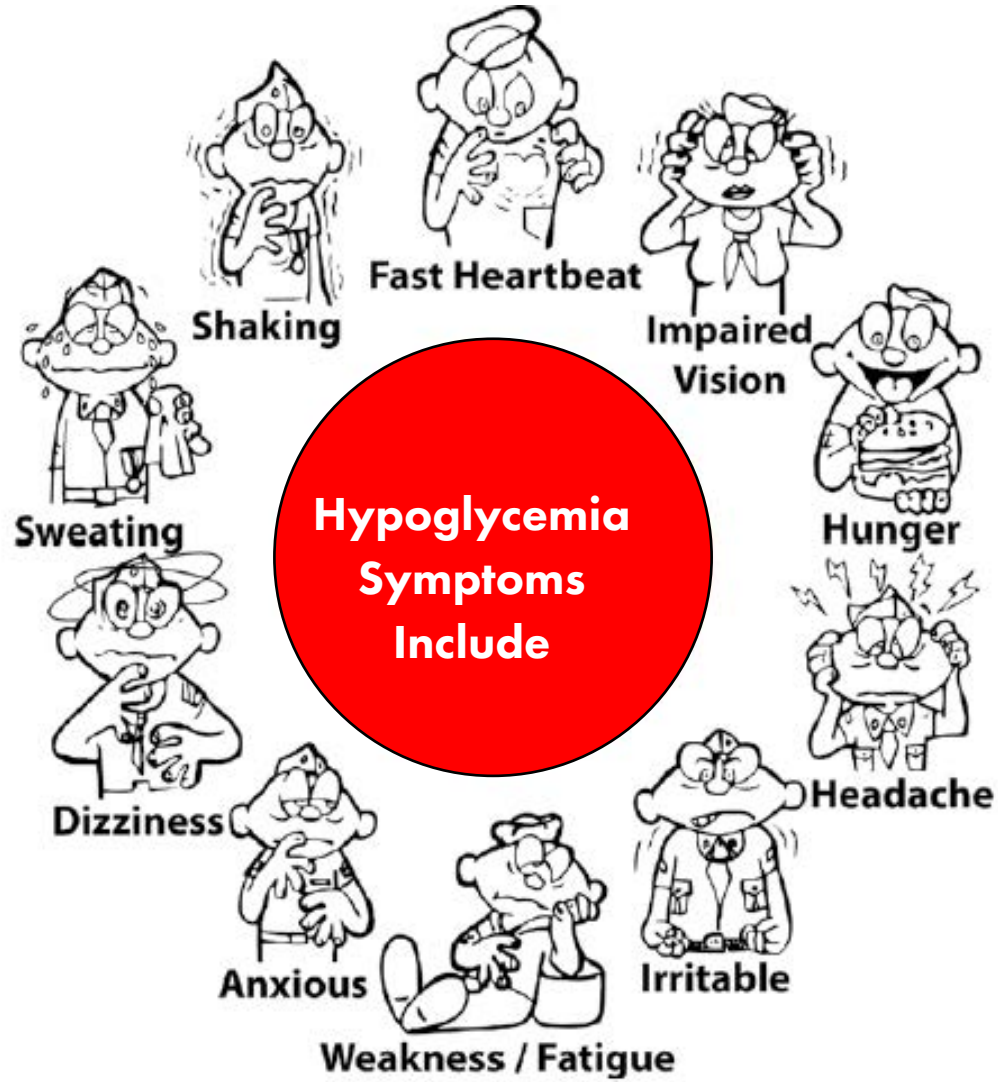
Also known as hypoglycemia

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 Rules - 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.

Always wear your diabetes identification bracelet or necklace or carry a wallet card in case you are not able to talk.

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

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.

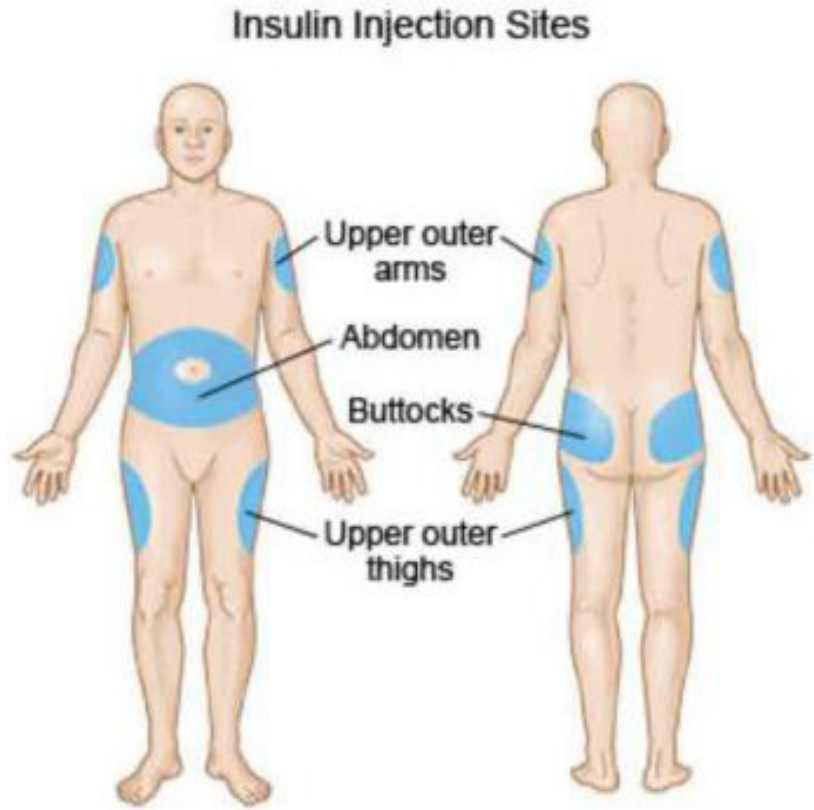
Insulin Important Tips

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.

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.

VA/DoD Resources

For more information

Scan one of the QR codes with a smart phone for the 2023 VA/DoD Clinical Practice Guideline for the Management of Type 2 Diabetes Mellitus toolkit.

Available 2023 tools:

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

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

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