



LET'S TALK DIABETES COMPLICATIONS

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DISCLOSURES/ BIO



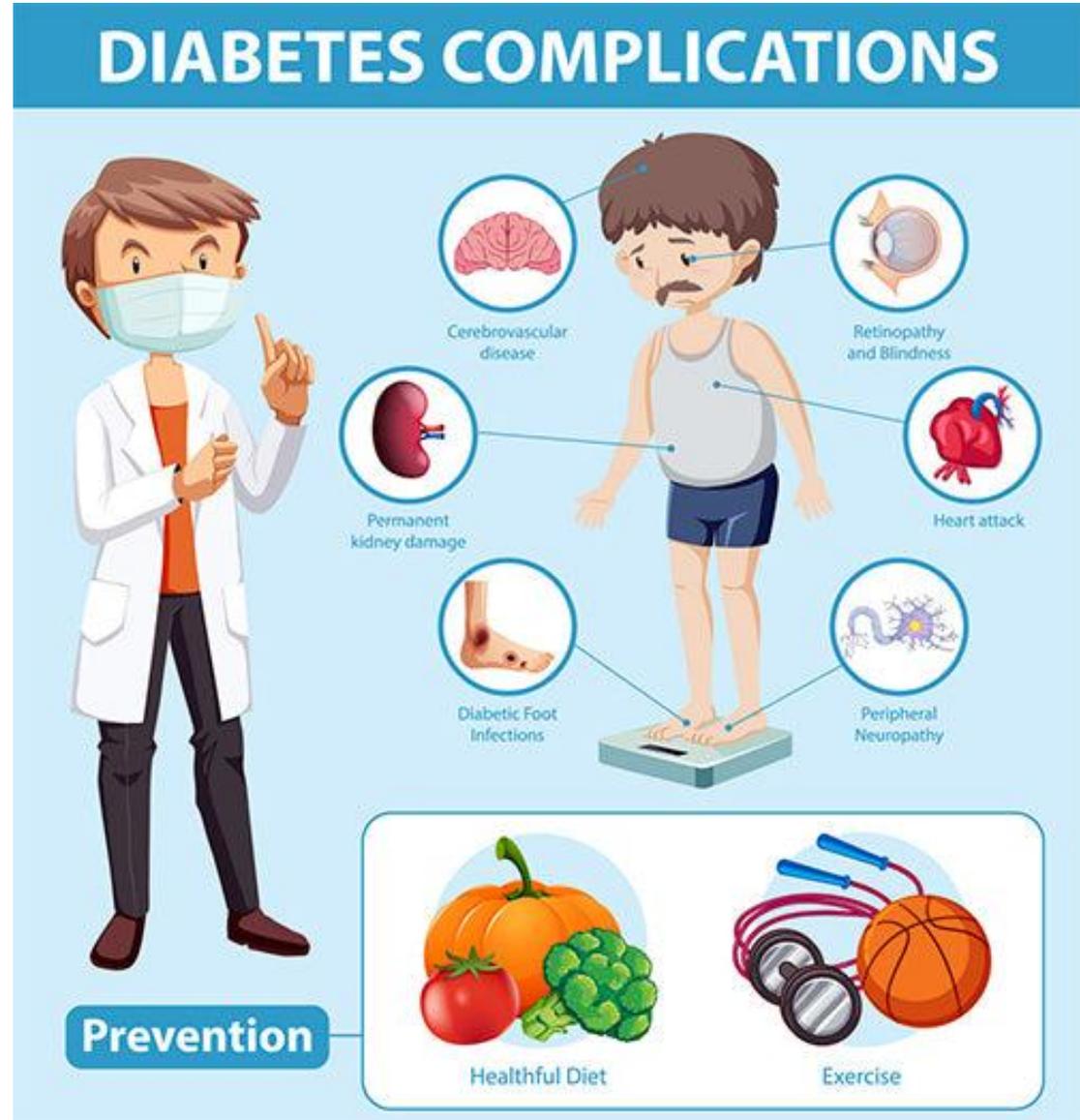
I work for Horizon Healthcare as a family medicine provider and have been managing pre-diabetes and Type 2 Diabetics for almost 8 years.



Nothing in this presentation takes the place of your personalized treatment plan, always talk to your healthcare provider before making any changes to your plan of care or if you have additional questions.

This list of complications is not exhaustive.

HOW CAN DIABETES AFFECT THE BODY ?



HYPOGLYCEMIA (LOW-BELOW 70)



Feeling shaky



Having a fast heartbeat



Sweating



Feeling dizzy



Feeling anxious



Feeling hungry



Having blurry vision



Feeling weak or very tired



Having a headache



Feeling irritable

Severe reactions include:

- Fainting/loss of consciousness
- Seizures
- Diabetic coma

HOW TO PREVENT LOWS

Your best bet is to keep your blood glucose in your target range.

Monitoring blood glucose, with either a blood glucose meter or CGM allows you to be aware of your blood glucose levels and take steps to prevent low blood glucose.

Studies consistently show that the more a person checks blood glucose, the lower their risk of low blood glucose.

If you can, check with your diabetes care team when and how often you need to check!

Times you can check include:

- Before and after meals.
- Before and after physical activity including exercise (or during, if it's a long or intense session).
- Before bed.
- In the middle of the night if your blood glucose may go low, such as after a day with intense exercise.
- After physical activity including exercise
- Check more frequently if things around you change such as a new insulin routine, a different work schedule, an increase in physical activity, or travel across time zones.

HYPERGLYCEMIA

The signs and hyperglycemia symptoms include the following:

- High blood glucose
- High levels of glucose in the urine
- Frequent urination
- Increased thirst

Hyperglycemia Symptoms



DRY MOUTH



THIRST



HEADACHE



WEAKNESS



BLURRED
VISION



FREQUENT
URINATION

HOW DO I TREAT HYPERGLYCEMIA?

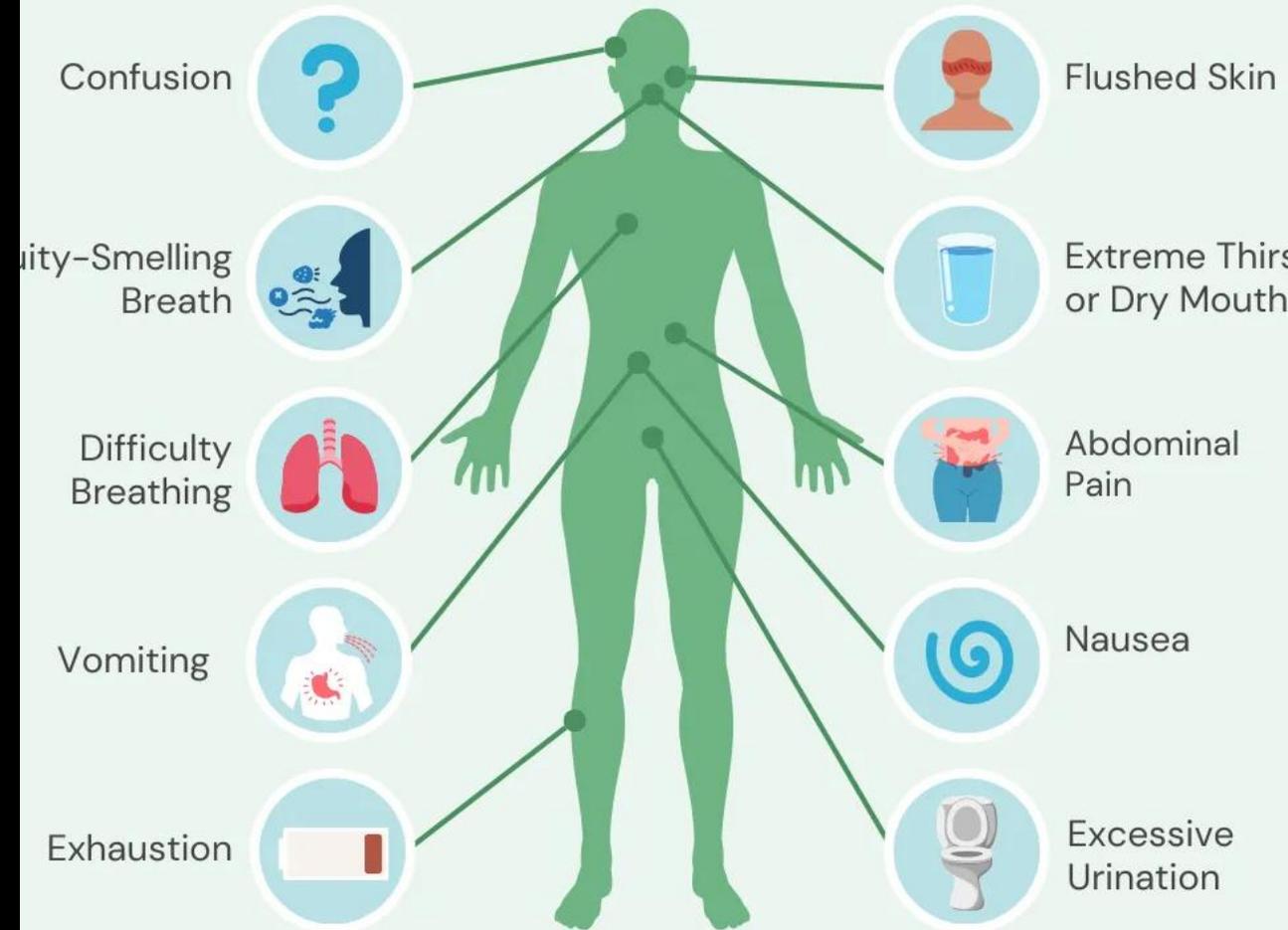
- You can often lower your blood glucose level by exercising. However, if your blood glucose is above 240 mg/dl, check your urine for ketones. ***If you have ketones, do not exercise.***
- Exercising when ketones are present may make your blood glucose level go even higher. You'll need to work with your doctor to find the safest way for you to lower your blood glucose level.
- Cutting down on the amount of food you eat might also help. Work with your dietitian to make changes in your meal plan. If exercise and changes in your diet don't work, your doctor may change the amount of your medication or insulin or possibly the timing of when you take it.

WHAT IF HIGH GLUCOSE LEVELS GO UNTREATED?

If you fail to treat hyperglycemia, a condition called ketoacidosis (diabetic coma) could occur.

DKA seen in Type 1; HHS in Type 2.

Signs and Symptoms of Diabetic Ketoacidosis (DKA)



CARDIOVASCULAR DISEASE

Cardiovascular disease (CVD) is the leading cause of death in people living with diabetes.

DIABETES increases risk of HEART DISEASE:



DIABETES affects about 1 OUT OF 10 PEOPLE in U.S.

HEART DISEASE is the LEADING CAUSE of death among adults with DIABETES

WHY are they LINKED?

HIGH BLOOD SUGAR can damage blood vessels and cause:

- ▶ Heart Attack
- ▶ Stroke
- ▶ Peripheral Artery Disease

People with diabetes also may have OTHER HEART RISK FACTORS:

- ▶ High Blood Pressure
- ▶ High Cholesterol
- ▶ Lack of Activity
- ▶ Obesity / Being Overweight

WHAT YOU CAN DO TO PROTECT YOUR HEART



Follow ABCs OF DIABETES by lowering:
✔ A1C (test that measures blood sugar)
✔ Blood pressure



QUIT SMOKING



TAKE MEDICINE if prescribed



BE ACTIVE for 30 min., 5x a week



EAT more



High blood sugar can cause damage to the walls of blood vessels



This damage can increase the build-up of fatty material



Over time, blood vessels narrow and blood flow is reduced

BRAIN

If you have diabetes, your chances of having a stroke are twice as high than in people without diabetes. There is also increased risk of memory loss. But again- you can lower your risk of having a stroke with healthy lifestyle changes and by managing your blood pressure, blood glucose (blood sugar), and cholesterol.



TO SPOT THE SIGNS OF A STROKE,

B

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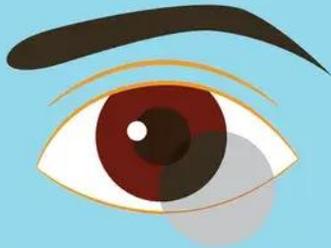
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Balance:
Loss of
balance or
coordination.



Eyes:
Changes
in vision.



Face:
Drooping
features on
one side of
the face.



**Arms
(and legs):**
Weakness in
a limb.



Speech:
Difficulty
speaking or
understanding
others.



Time:
Call 911 or
emergency
services
right away.

4 Steps to Preventing Stroke if You have Diabetes

If you have type 2 diabetes, you are at increased risk for stroke. There are steps you can take to reduce your risk. Start with these:

-  1. Talk to your doctor to set goals for controlling your diabetes.
-  2. Take your medicine as instructed by your doctor.
-  3. Continue healthy eating habits and keep moving.
-  4. Manage your blood pressure, cholesterol and diabetes.

What causes a stroke?

A stroke is caused by damage to the blood vessels carrying blood and oxygen to your brain. If one of those blood vessels is blocked or bursts, it prevents blood and oxygen from reaching your brain.

How are stroke and type 2 diabetes connected?

Unmanaged diabetes damages your blood vessels over time. Excess blood glucose (also called blood sugar) makes blood vessels stiff and the vessels can also fill with plaque (a fatty substance). Plaque leads to blockages.

Recognize the signs of a stroke:

F.A.S.T.

Face Drooping	Arm Weakness	Speech Difficulty	Time to Call 911
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IF YOU DO HAVE DIABETES, there is a lot more you can do to reduce your risk for stroke.

Talk to your doctor about your next steps. You're not in this alone.

Risk for Stroke is
2x Higher
When You Have Diabetes

CHRONIC KIDNEY DISEASE

Diabetes is the leading cause of chronic kidney disease (CKD). Factors including, genetics, blood glucose (blood sugar) management, and blood pressure affect your risk of developing CKD.



1 in 3

Approximately 1 in 3 adults with diabetes (and 1 in 5 adults with high blood pressure) may have **chronic kidney disease**.

HOW TO HELP PREVENT CKD:

You can help keep your kidneys healthy by managing your blood sugar, blood pressure, and cholesterol levels. This is also very important for your heart and blood vessels. High blood sugar, blood pressure, and cholesterol levels are all risk factors for heart disease and stroke.

Keep your blood sugar levels in your **target range** as much as possible.

Get an **A1C test** at least twice a year. Get a **urine microalbumin** at least once a year. Ask your doctor how often is right for you.

Keep your blood pressure **below 140/90 mm Hg** (or the target your doctor sets—different society guidelines differ on this).

Stay in your target cholesterol range (**usually less than 70 LDL for DM**)

Eat foods **lower in sodium**.

Eat **more fruits and vegetables**.

Be **physically active**.

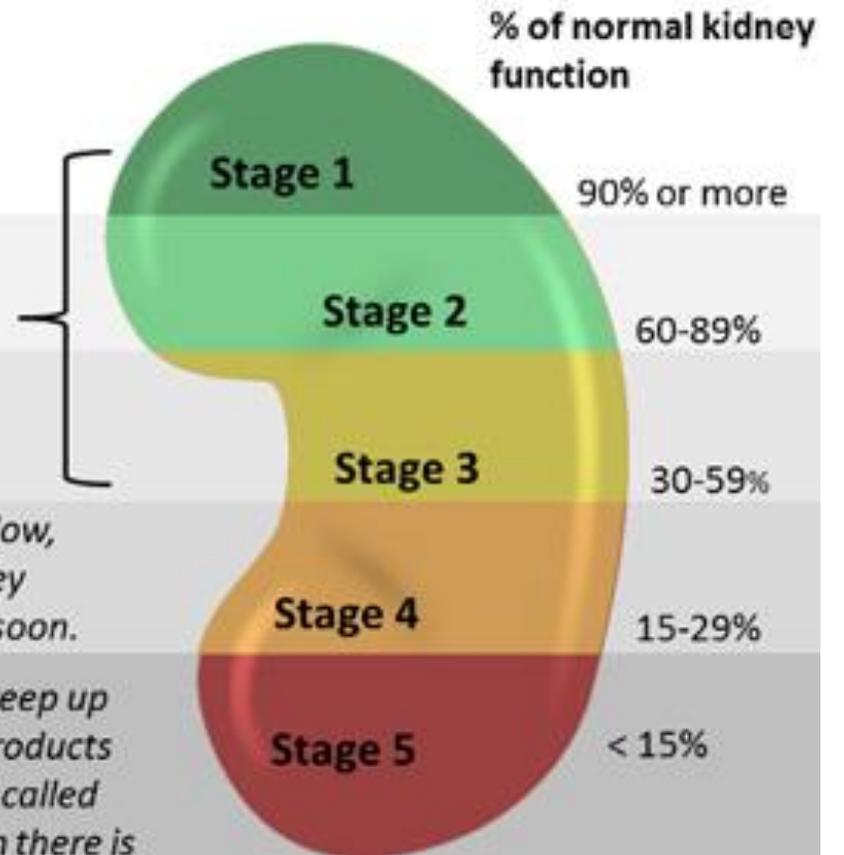
Take your medicines as directed.

What happens?

There are no specific symptoms, but kidney function can slowly decline.

Kidney function is very low, and treatment for kidney failure may be needed soon.

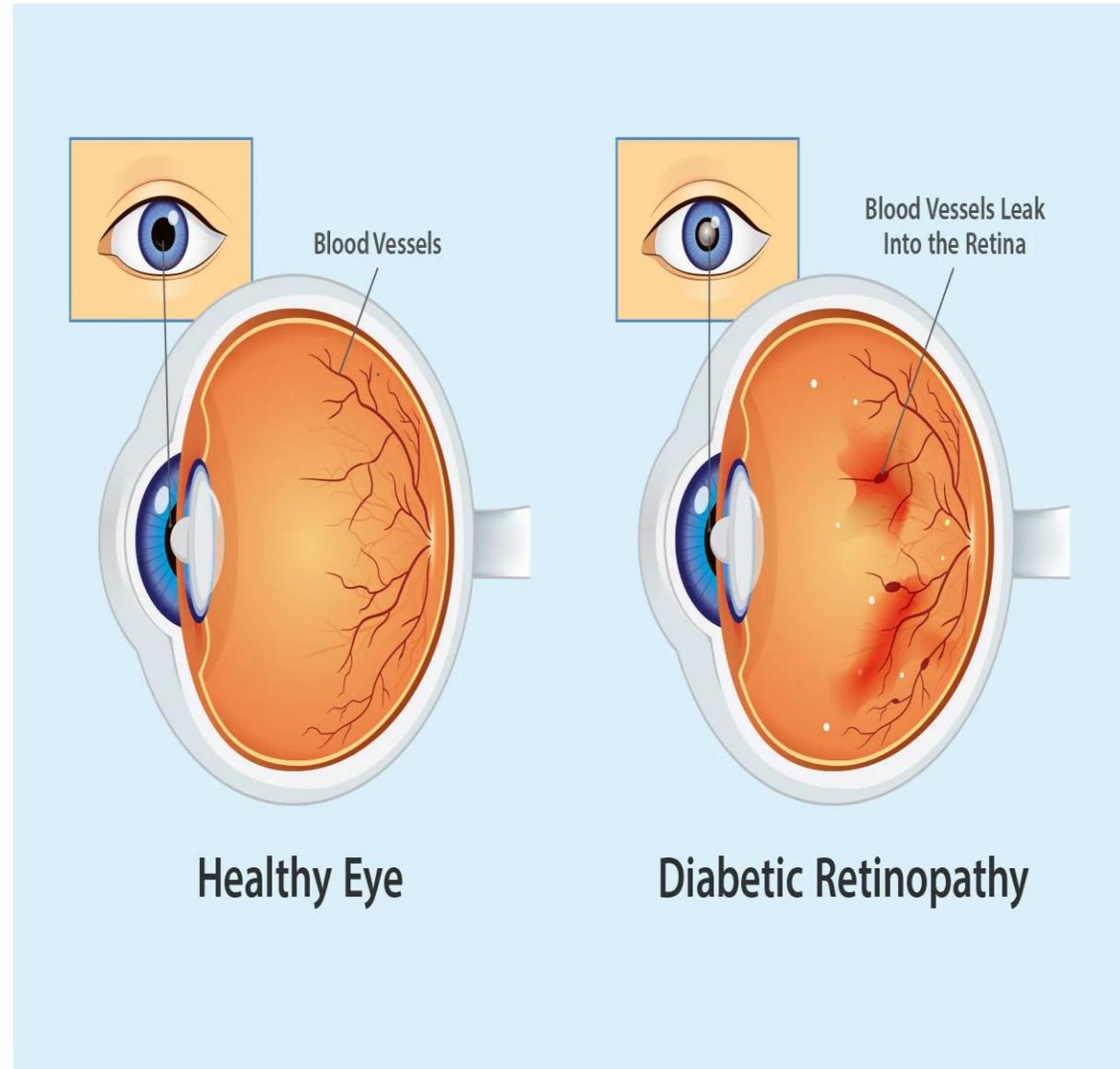
Kidneys can no longer keep up with removing waste products and extra water. This is called kidney failure. Although there is no cure, treatment options are available.

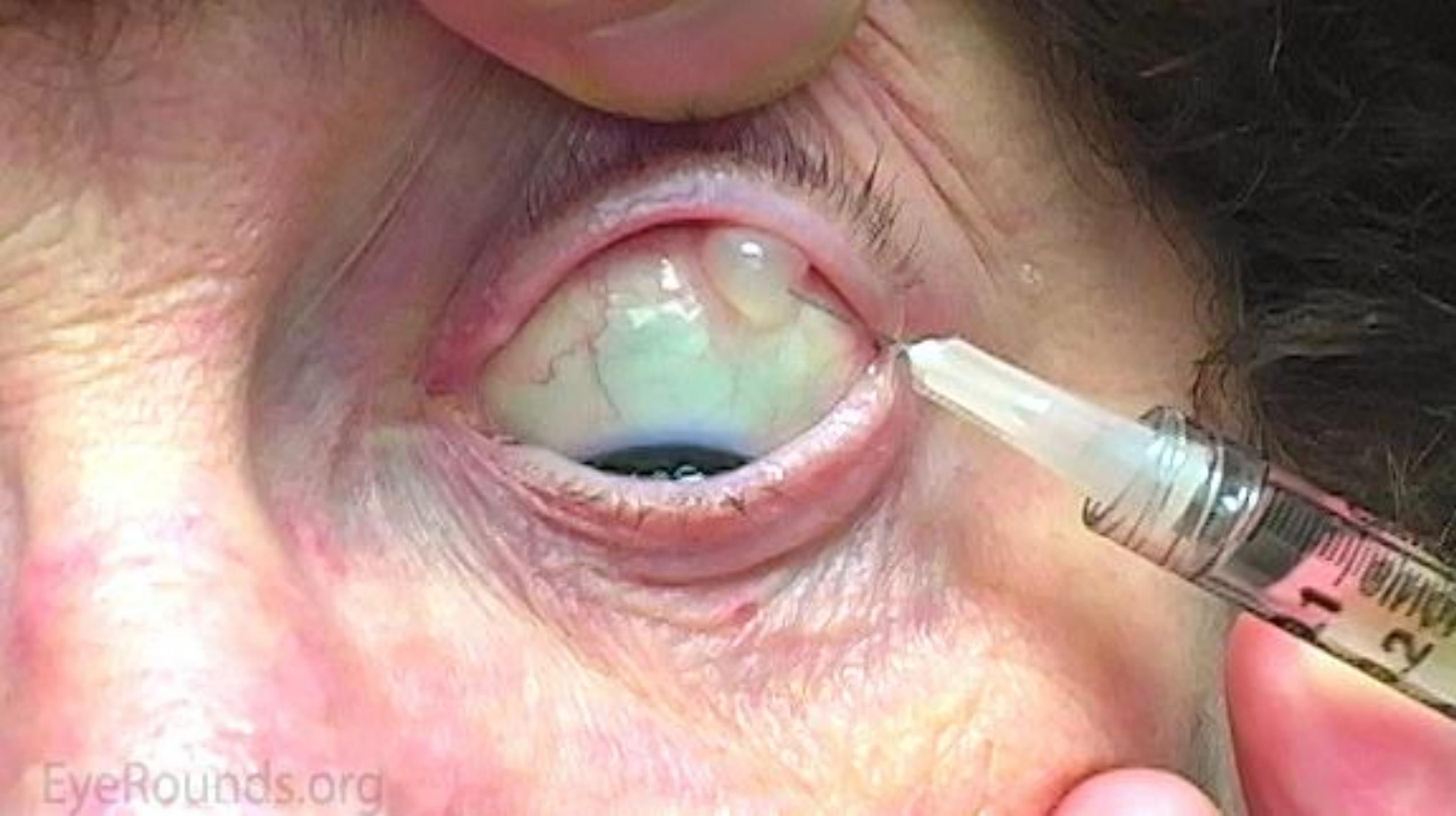


EYE DISEASE

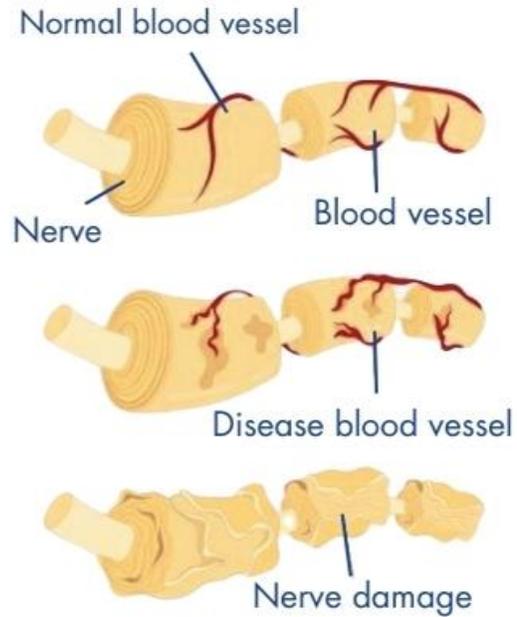
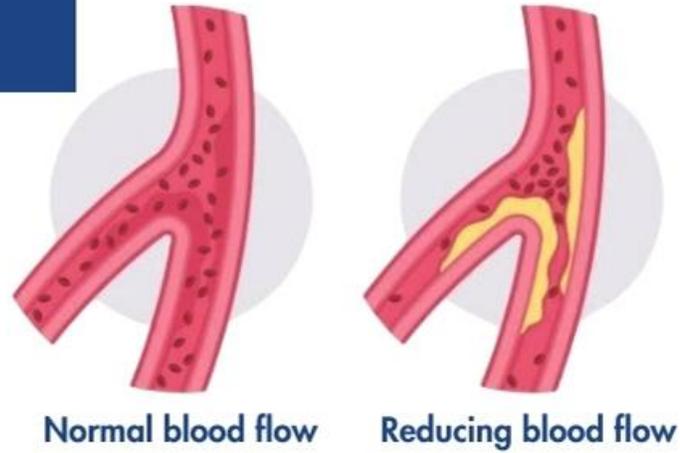
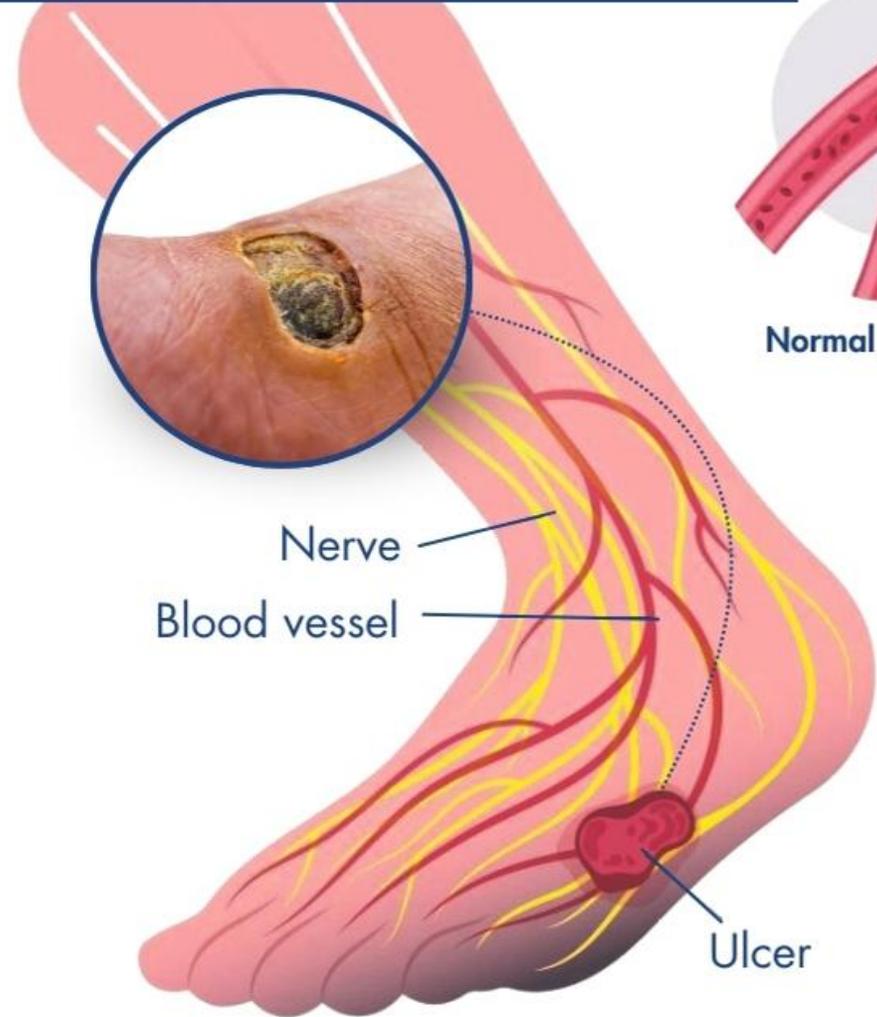
Diabetes is the leading cause of new cases of blindness in working age adults.

- Routine comprehensive eye exams can provide early detection and prevent or delay vision loss and other valuable information to help avoid diabetes-related eye disease.





Diabetic Neuropathy



NEUROPATHY

Neuropathy (or nerve damage) affects about half of all people with diabetes.

Loose sensation in feet, often become painful. Can lead to ulcers, infections, amputations.

Routine foot examinations with monofilament testing with routine visits.

FOOT COMPLICATIONS

Diabetes can lead to nerve damage, reduced circulation, infections, and even limb loss.



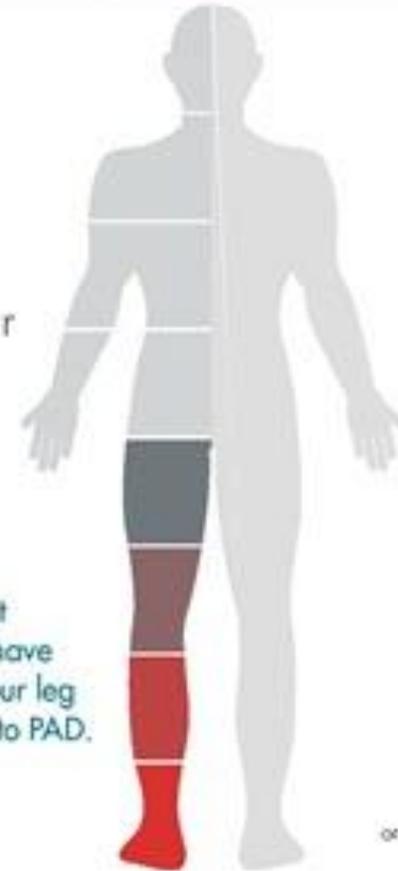
Know **Diabetes** by **Heart**™



Type 2 Diabetes and PAD

Peripheral artery disease (PAD) is a narrowing of the arteries leading to your limbs and organs, usually your legs.

Most leg pain is not serious. But if you have type 2 diabetes, your leg pain could be due to PAD.



See your doctor if you have:



Leg pain that doesn't go away after exercising.



Foot or toe wounds that won't heal or heal slowly.



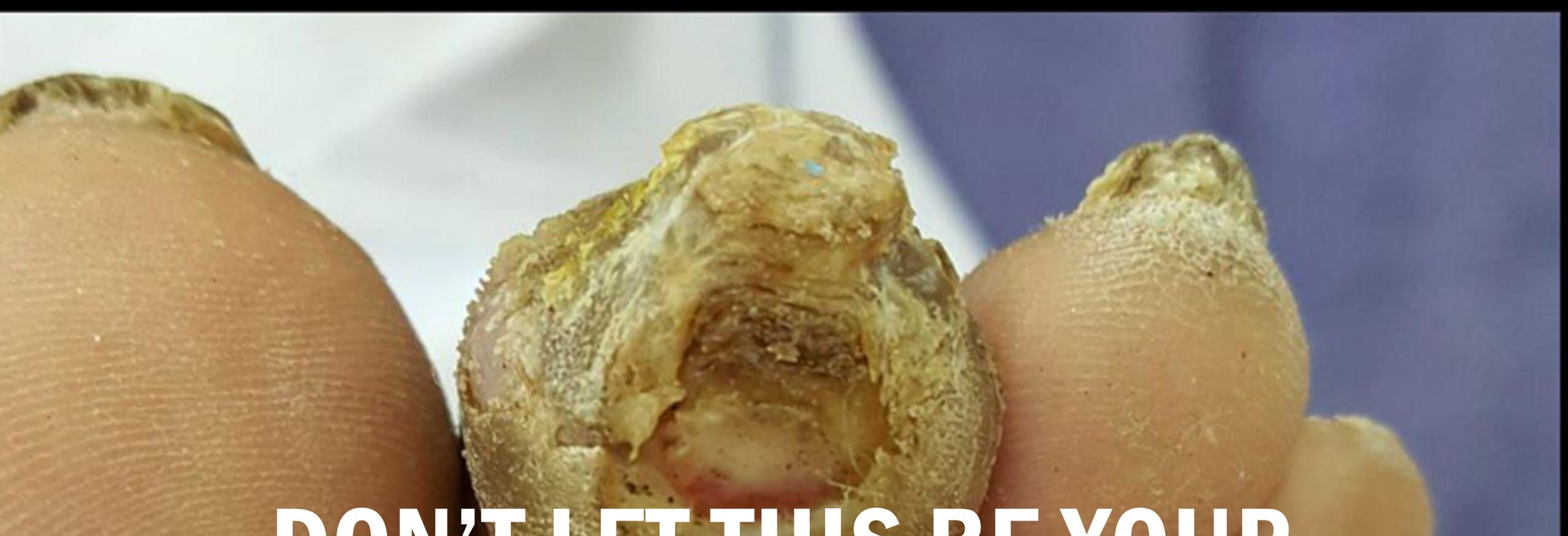
Poor nail growth on the toes or hair loss on the legs.



Lower temperature in your lower leg or foot compared to the rest of your body.

IF YOU HAVE DIABETES, THERE IS A LOT MORE YOU CAN DO TO

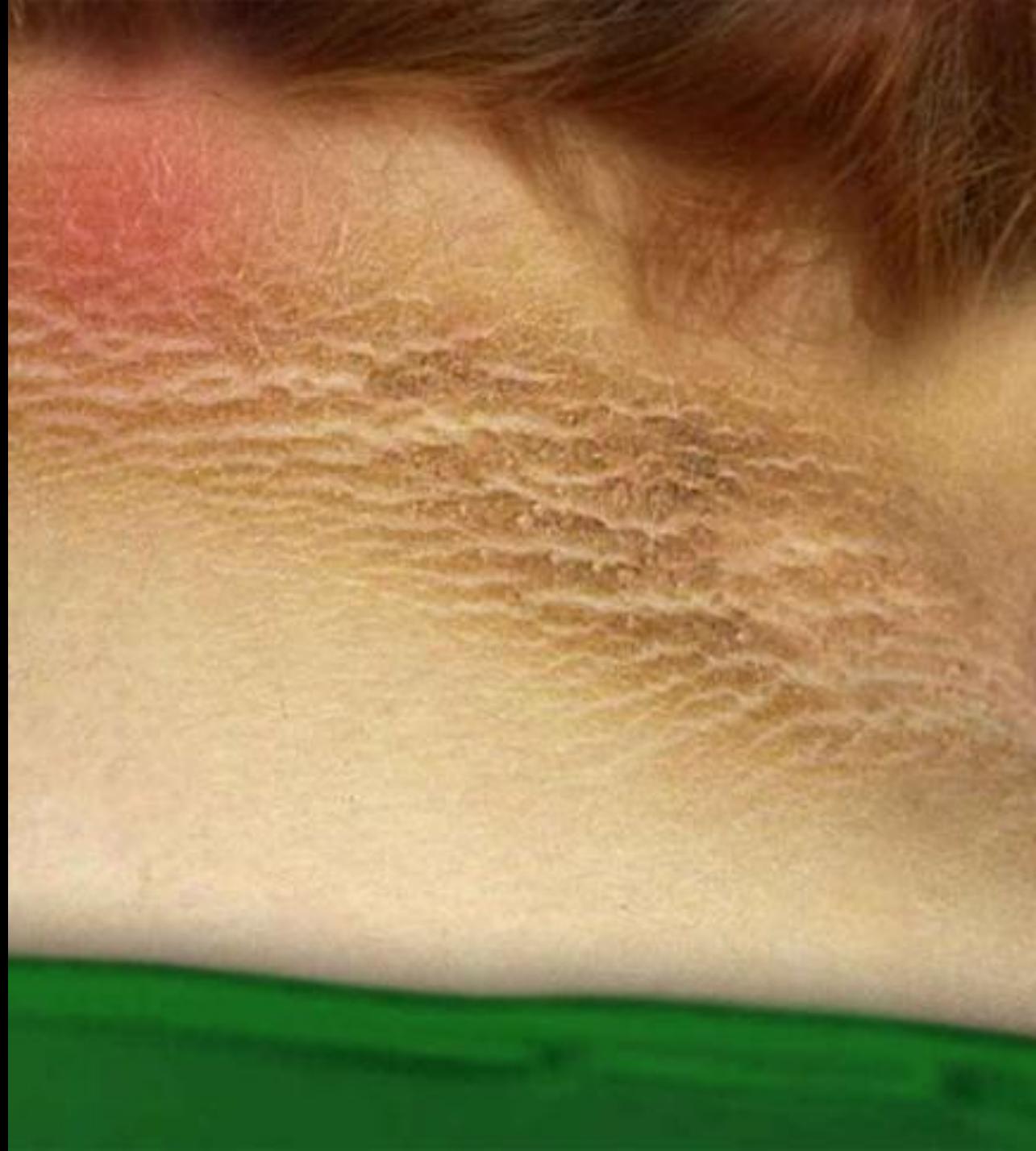
Talk to your doctor about your next steps. You're not in this alone. Find answers to your questions and join the initiative:



**DON'T LET THIS BE YOUR
TOES..TAKE YOUR DIABETES
SERIOUS**

SKIN COMPLICATIONS

Diabetes can impact the body's largest organ—your skin. But if caught early, most skin conditions can be prevented or easily treated.

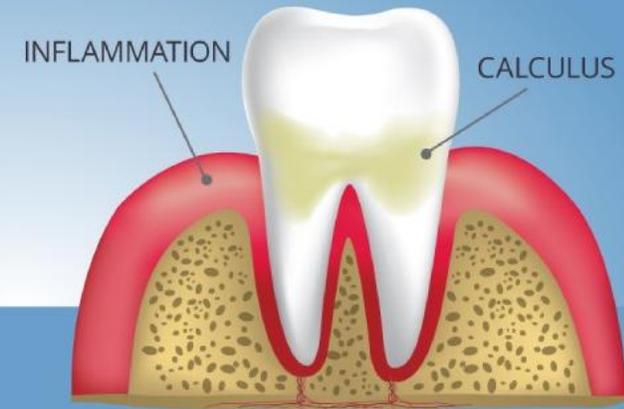


ORAL DISEASE

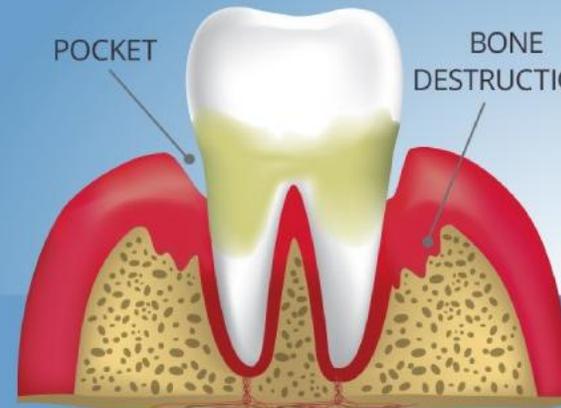
If you have diabetes, you're at higher risk for both gingivitis (early-stage gum disease) and periodontitis (advanced gum disease). You can prevent or reduce your risk for gum disease and other oral complications by taking care of your oral health at home and by getting routine checkups with a dentist or periodontist.



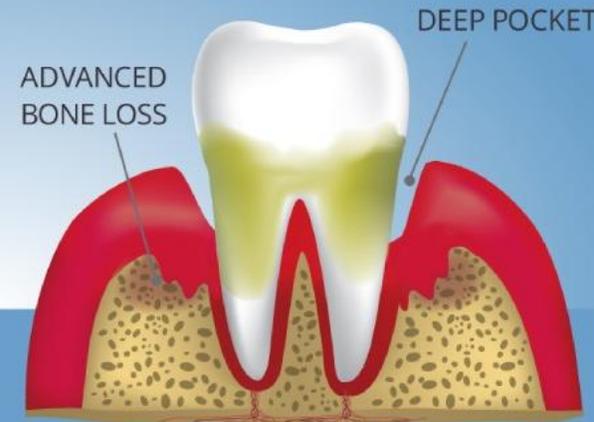
1. HEALTHY GUMS & TOOTH



2. GINGIVITIS



3. PERIODONTITIS



4. ADVANCED PERIODONTITIS

HEARING LOSS

Hearing loss is twice as common in people with diabetes as it is in those who don't have diabetes. For people with prediabetes, the rate of hearing loss is 30 percent higher than in those with normal blood glucose (blood sugar). Learn the signs and what action you should take if you suspect hearing loss.



Signs of hearing loss

- Frequently asking others to repeat themselves
- Trouble following conversations that involve more than two people
- Thinking that others are mumbling
- Problems hearing in noisy places such as busy restaurants
- Trouble hearing the voices of women and small children
- Turning up the TV or radio volume too loud for others who are nearby

MENTAL HEALTH

Diabetes takes a toll on more than your body. It's normal to feel emotional strain—and it's important to ask for help.

<https://diabetes.org/health-wellness/mental-health/make-living-with-diabetes-easier>

SEX AND DIABETES COMPLICATIONS

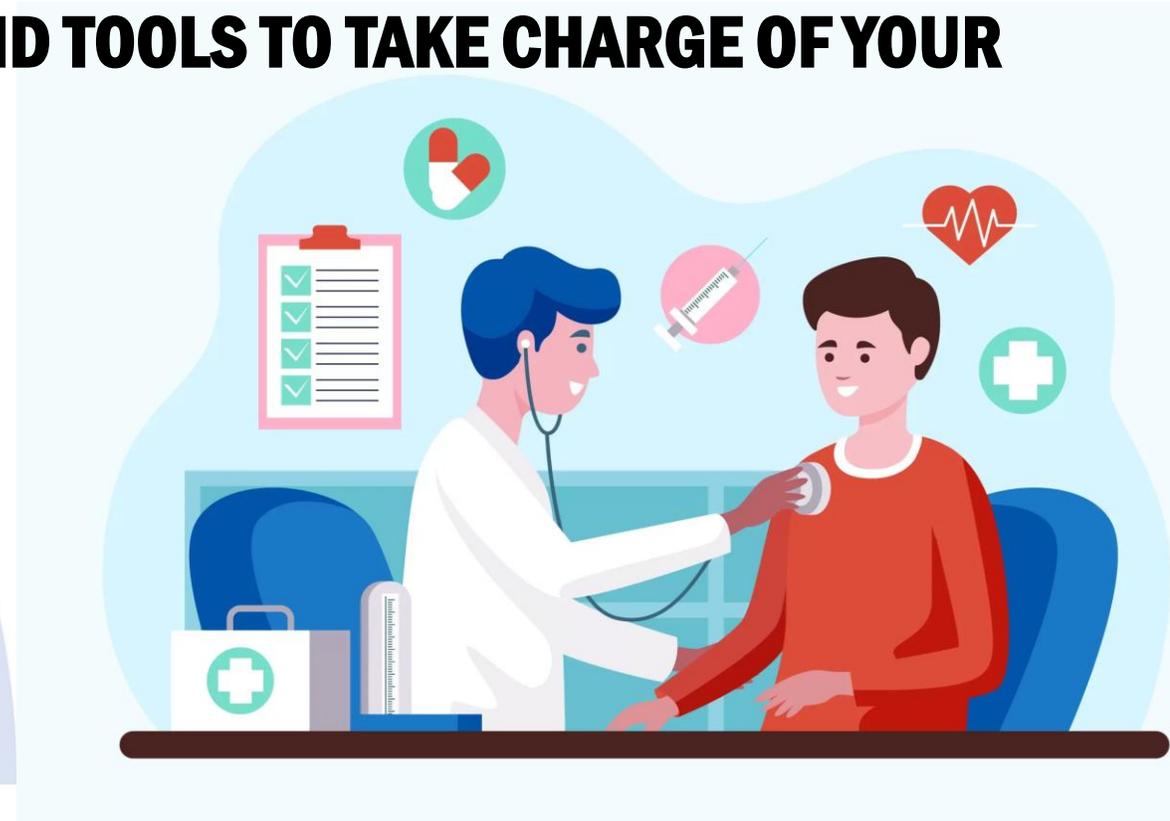
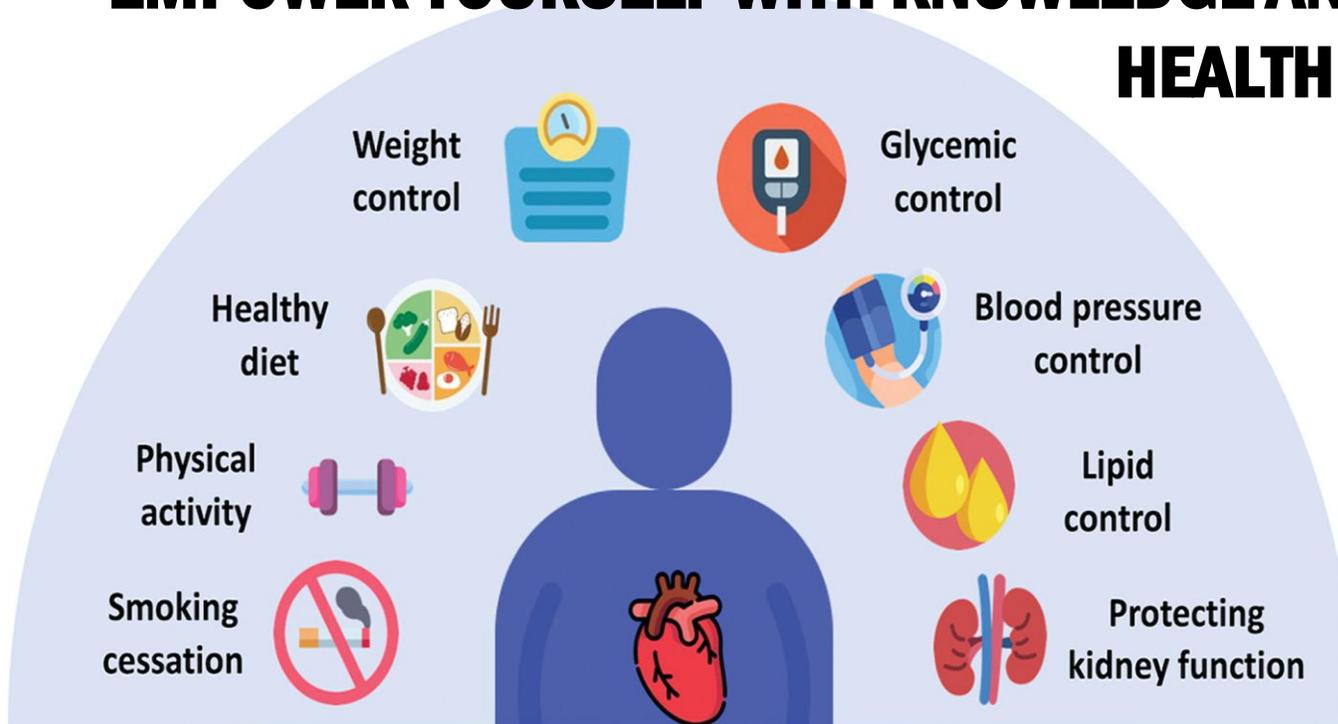
For an oversexed culture that isn't afraid to push boundaries on TV, in movies, on the radio, and in books and magazines, we're awfully shy about sex when it comes to our health.

- The reality is that people with diabetes are at higher risk for sexual problems. Fortunately, there are healthy ways to deal with complications that may arise. Talk to your healthcare provider.

<https://diabetes.org/health-wellness/sexual-health/sex-diabetes>

OVERALL BEST STRATEGIES TO PREVENT/DELAY COMPLICATIONS

EMPOWER YOURSELF WITH KNOWLEDGE AND TOOLS TO TAKE CHARGE OF YOUR HEALTH



**ANY
QUESTIONS?**

....thanks for listening and hope
you are feeling **EMPOWERED!**

