

Seed  
GLOBAL HEALTH

# Diabetes

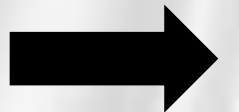
Registrar evidence-based education

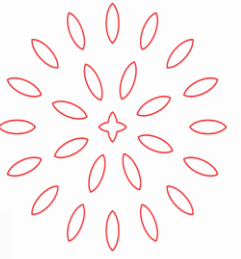
ADA

AACE

USPSTF

Choosing Wisely





A1c

Feet

Blood Pressure

Give up smoking

Cholesterol

Heart

Diet/Exercise

Immunizations

Eyes

Kidneys



# A1C

- What does it measure?
- What is considered normal, 'pre-DM', DM?
- What is the goal A1c for people with DM?
- How often should it be repeated?



# Blood pressure



- Why is this bundled with DM care?
- What is the goal?
- What blood pressure medication should be used?



# Cholesterol



- Why is this bundled with DM care?
- What medication is used to decrease the risk of a heart attack?
- When do you start medications?



# Diet/Exercise

- How often should people with DM be active?
- What diets work?



# Eyes



- Why is it important to screen the eyes for DM disease?
- Why does DM retinopathy develop?
- How do you treat DM retinopathy?
- How do you prevent DM retinopathy?





# Feet

- Why are foot exams important?
- How do DM foot ulcers develop?
- What are the components of the DM foot exam?





# Giving up smoking?

- Why is this bundled with DM care?
- How can we help people stop smoking?



# Heart



- What medication can be used to help prevent heart attacks?
- When do you recommend low dose aspirin for patients with DM?



# Immunizations

- What immunizations are recommended for people with DM?

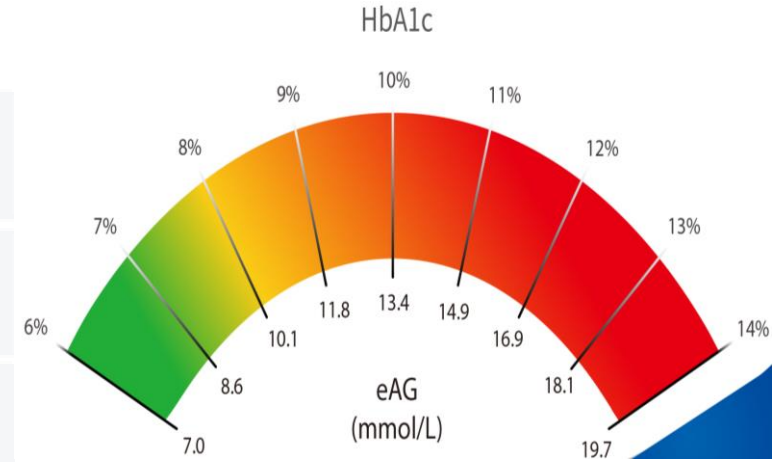
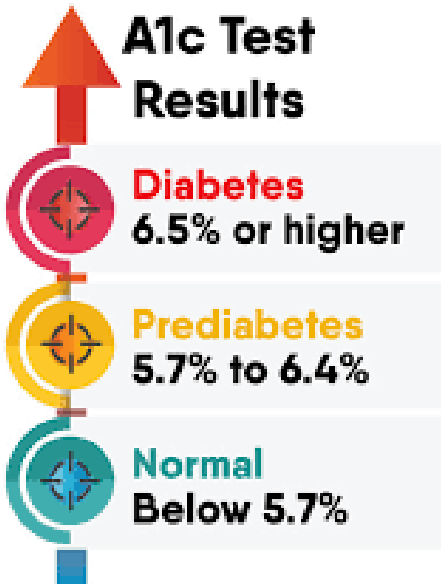
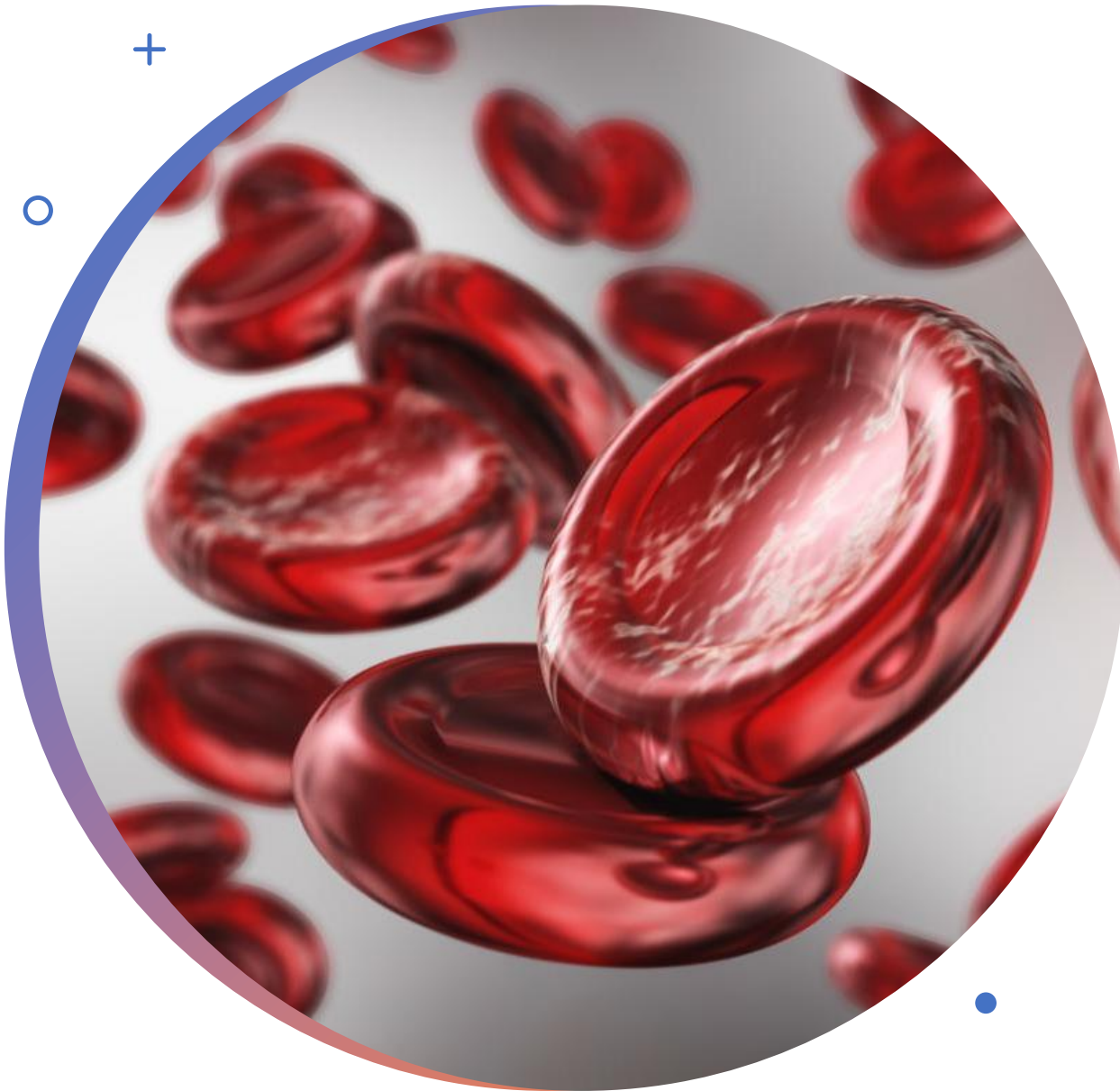


# Kidneys



- Why is it important to screen for kidney disease?
- How does DM cause kidney disease?
- What can be done to prevent DM kidney disease?
- What medication is used to slow DM kidney disease progression?

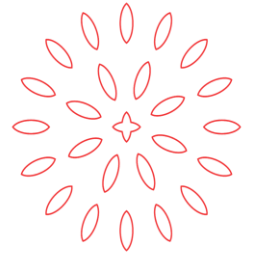




- Percentage of sugar stuck to a red blood cell
- Per [ADA](#) the typical goal is <7 although it may increase to as high as <9 depending on comorbidities like heart attack, stroke, CKD, age, fragility
- Check every 6 months if controlled and 3 months after the last medication change if uncontrolled (the lifespan of a red blood cell)

\*\*\*Bonus\*\*\* A1c <7 = fasting 4.4-7.2, PP <10



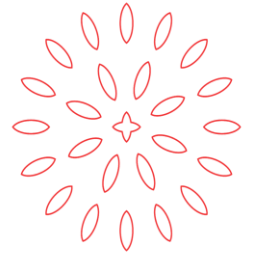


# Blood pressure

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- Having diabetes increases your risk of a heart attack and stroke. Smoking, high cholesterol and high blood pressure are modifiable risk factors we can control to lower someone's risk.
- < 140/90
- Per [\*ADA standards of care\*](#) all first line antihypertensives are effective when hypertension is present including thiazides, ACEIs, ARBs and CCB.





# Cholesterol



Having diabetes increases your risk of a heart attack and stroke.

Smoking, high cholesterol and high blood pressure are all modifiable risk factors.

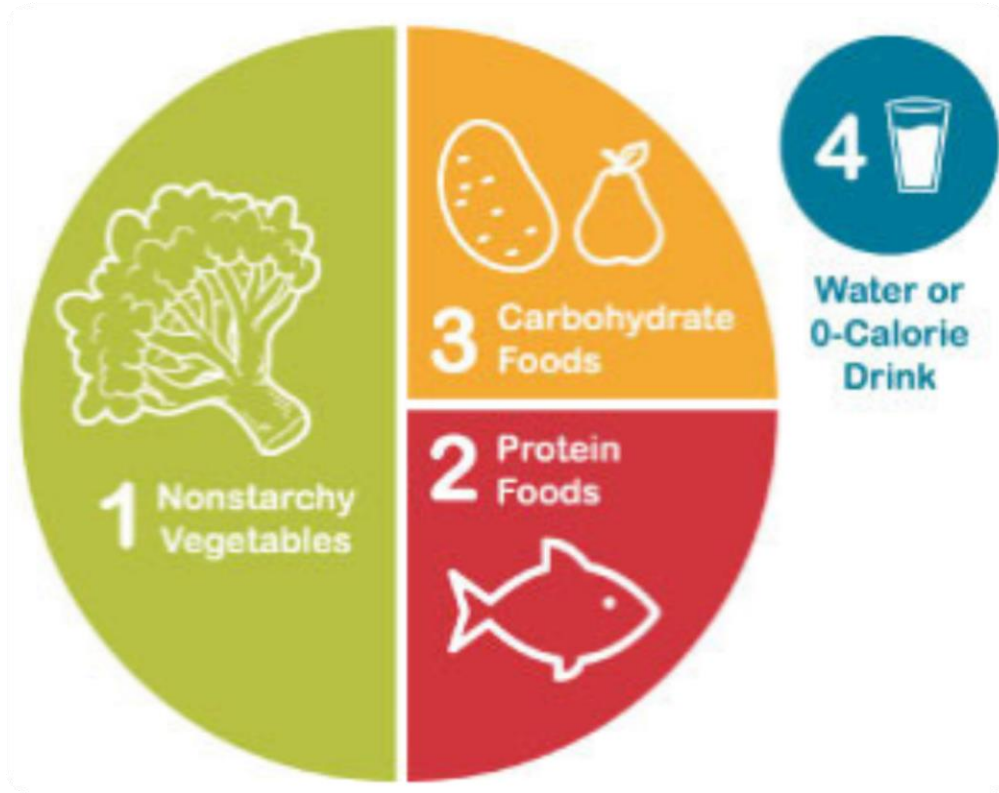
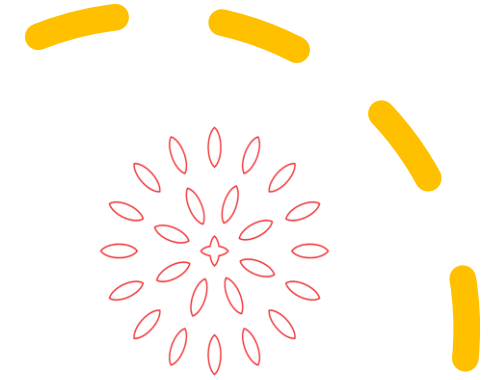
Statin, metformin, GLP1, SGLT2

- ASA only for secondary prevention

Based on the USPSTF recommendation low-moderate dose statins should be started when the ASCVD risk is  $\geq 10\%$ .



# Diet/Exercise



30 minutes of an activity the patient likes/selects most days of the week.

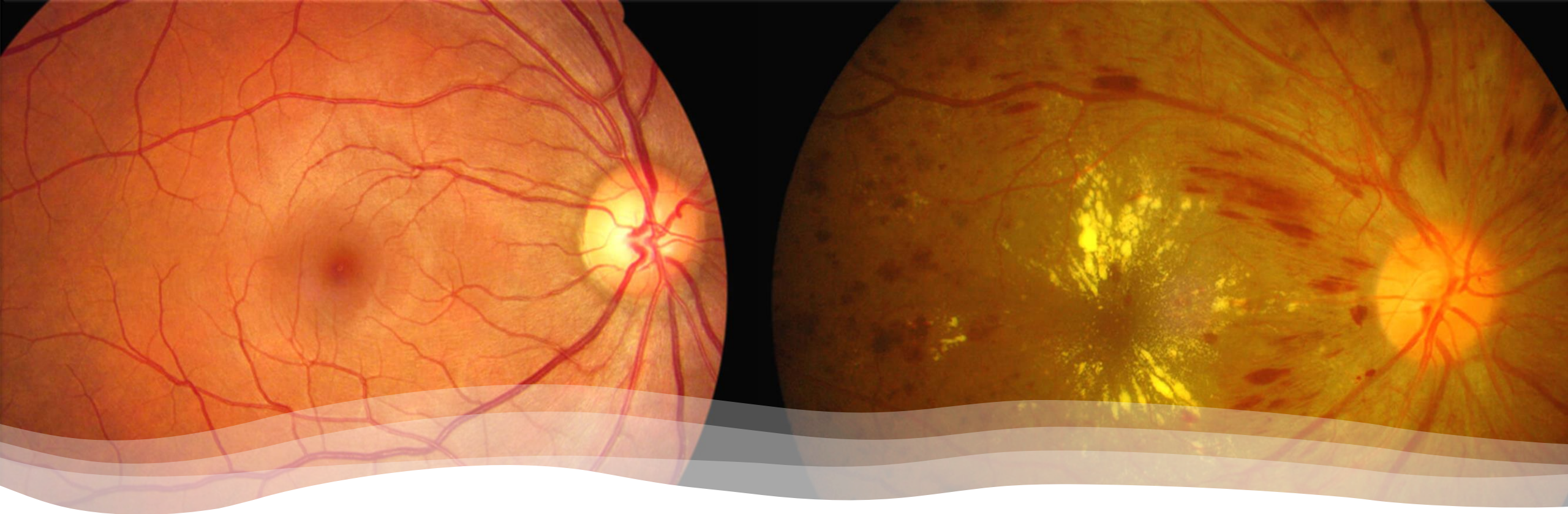
All diets work and they all fail. Dietary changes should come through motivational interviewing and should be sustainable for life. Do not give prescriptive diets i.e. carbs/meal, instead focus on the big picture:

Metformin, SGLT2, GLP1 ↓ weight

Sulfonylureas and insulin ↑ increase







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Diabetic retinopathy is a leading cause of blindness for adults >40yo

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Sugar sticks in the small vessels of the eye causing them to leak, bleed or die. This can also lead to non-functional new vessel growth.

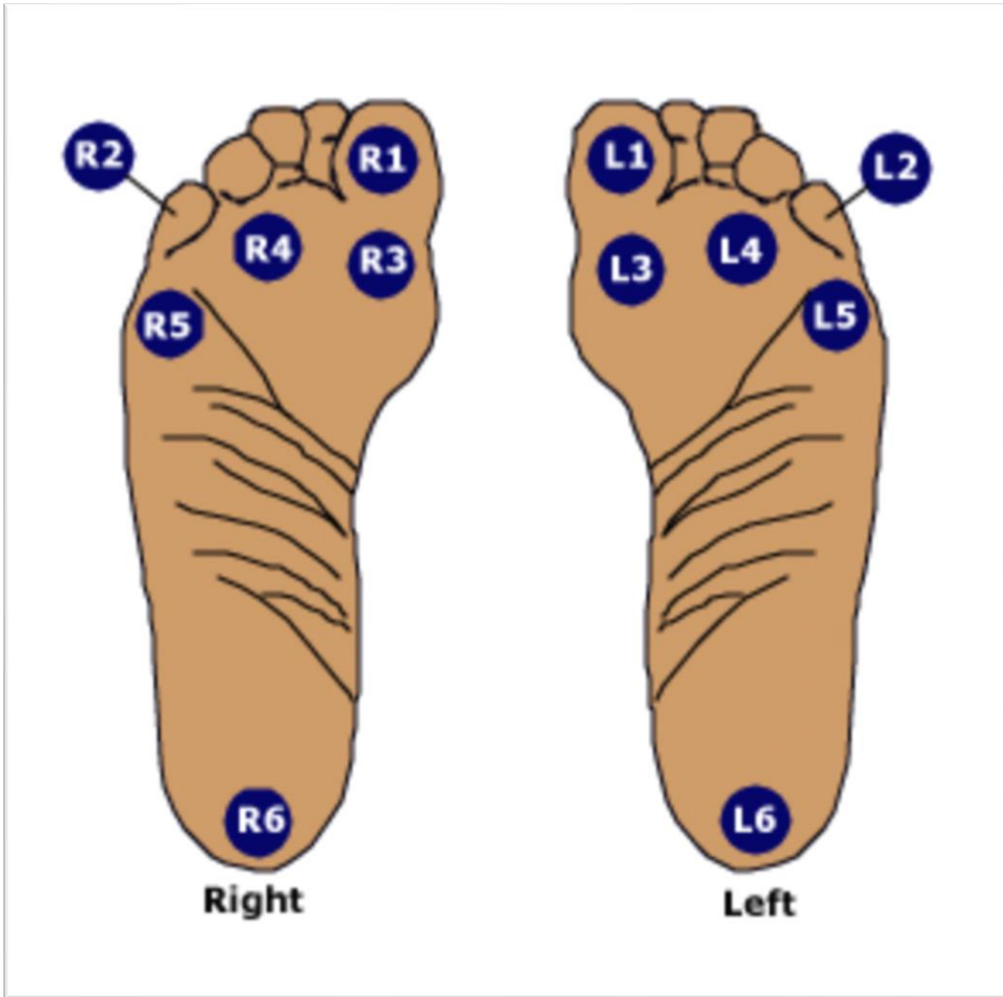
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Treatment of mild disease is possible by controlling blood sugar and blood pressure. Moderate to severe disease may need injections, laser or surgery.

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Obtaining a [\*retinal exam\*](#) every 2 years and controlling blood pressure and sugars will prevent permanent damage from DM retinopathy.

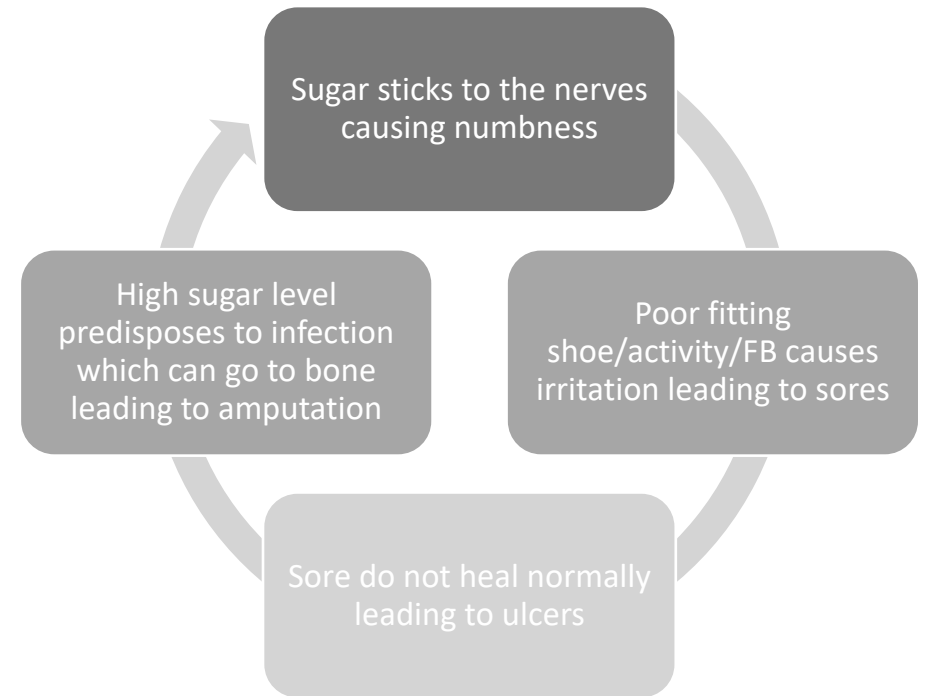




Check sensation, pulses and skin yearly if normal

- More often if abnormal
- Every visit with previous osteomyelitis or amputation

Foot ulcers develop easily and are hard to heal leading to high cost, morbidity and mortality



# The secret's out.

If your product killed **8 million** people each year, you'd also target a new generation.

## World No Tobacco Day

Giving up smoking?

Diabetes increases your risk of a heart attack and stroke.

Smoking, HTN, HLD are all modifiable risk factors.

Address it and encourage them to stop.

Prescribe nicotine replacement therapy with patch plus gum/lozenge

Prescribe bupropion



# Heart

Statin, metformin, GLP1, SGLT2

Risk of aspirin = benefit for primary prevention

The [ADA](#) recommends low dose aspirin only as secondary prevention for those who have had a heart attack, stroke, PAD or symptomatic carotid disease



# Immunizations

All typical vaccines per CDC guidance plus.....

## Hepatitis B

- Series of 2-3 depending on which brand

## PCV20 or PCV15

- If PCV15 is given then administer PPSV23  $\geq 1$  year later

## Flu

- annual

## COVID

- Per CDC



# Kidneys

CKD affects 20-40% of people with DM

- DM is the leading cause for dialysis

Sugar sticks to the blood vessels which leads to damage in the kidneys

Control sugar and blood pressure and check renal panel with a BMP yearly

ARB/ACE and SGLT2

- Per the [ADA](#) there is no benefit in using ACE/ARB as primary prevention, the patient must have hypertension, a GFR < 60 and/or albumin/Cr ratio >30.

