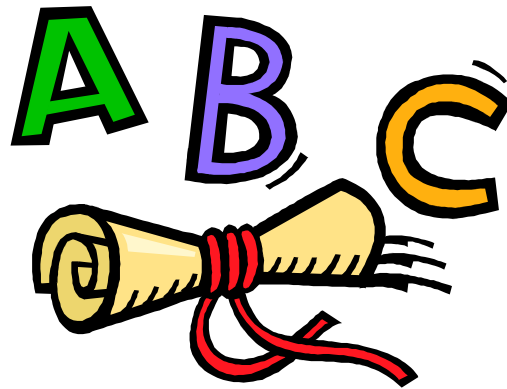




How to Get & Stay Healthy with Diabetes



Adapted for Upstate Medical University by:
Kristi Shaver, BS, RN, CDE, MS-CNS Student (2014)
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High Blood Sugars

- High blood sugars for long periods of time increase the risk of complications
- You can help prevent the start or worsening of complications



Why is Diabetes “Control” Important?

Research studies (DCCT/UKPDS) for type 1 and type 2 diabetes showed:

- ***improved blood sugar control reduced the risk for eye, kidney and nerve problems by as much as 50-75%***
- ***every time you reduce the A1c by 1%, you reduce your risk for complications by 35%***

DCCT- Diabetes Control and Complications Trial

UKPDS- United Kingdom Prospective Diabetes Study



Joslin Diabetes Center



Why is Blood Pressure “Control” Important?

- *Controlling blood pressure helps to prevent or minimize the effects of eye, kidney and nerve problems*
- *Controlling blood pressure reduces the chance for stroke and heart disease*



Heart Disease

- Having diabetes increases my chance for heart disease and stroke at an earlier age, than for people without diabetes.

True

- There is very little that I can do to lower my risk.

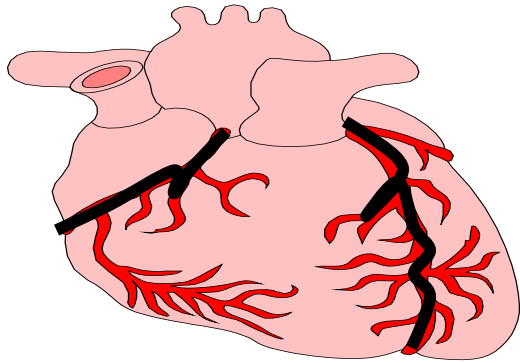
False

- To lower my risk, I have to give up everything that I like to eat.

False



Heart Attack



Clogged blood vessels in the heart block the flow of blood and oxygen to the heart muscle.

Symptoms?

- May be **No Symptoms!**
- **Silent Heart Attack**
diabetes can damage the nerves that give you the warning there is a problem
- Blood sugars suddenly out of control
- Women's symptoms may be different

Circulation

- Blood vessels may be damaged in the brain which could cause a:

Stroke

- Damaged vessels and poor circulation to the legs could lead to:

Peripheral Vascular Disease

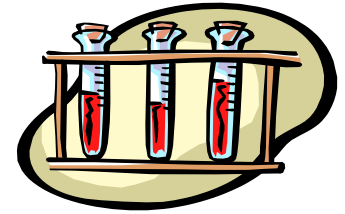


What Can Be Done?

1. Check A1c 2-4 times per year
**Goal: Less than 7% or
as low and safe as possible**
2. Discuss need for EKG or stress test with your doctor
3. Blood pressure less than 130/80



What Else Can Be Done?



4. Check blood fats (lipids) every year

Goal: Cholesterol less than 200

LDL (bad) less than 100

HDL (good) over 45

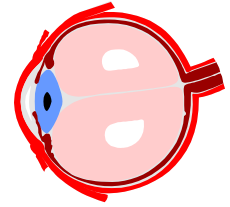
Triglycerides less than 150

(fasting)

5. Discuss aspirin therapy with your provider



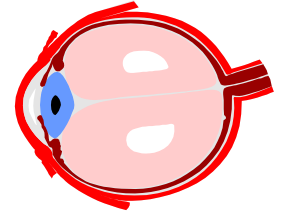
Eye Disease



- Keeping my blood pressure and blood sugar under control helps lower my risk. **TRUE**
- Because I have diabetes, I will have eye problems. **False**
- If I can see well, then I do not have eye disease. **False**

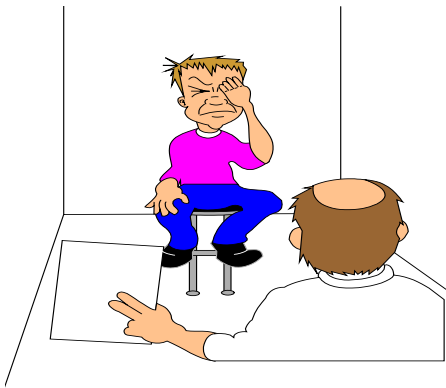


Eye Disease



Retinopathy

Small vessels in the eye become damaged, leak and block vision



Glaucoma & Cataracts

More common and occurs earlier in people with diabetes

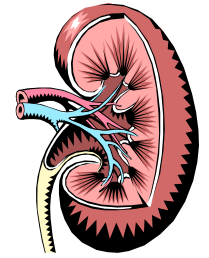


What Can Be Done?

Early detection and treatment
preserves vision!

Have a yearly dilated eye exam

Kidney Disease



- Keeping my blood pressure and blood sugar under control helps lower my risk

TRUE

- I will feel sick if my kidneys are damaged

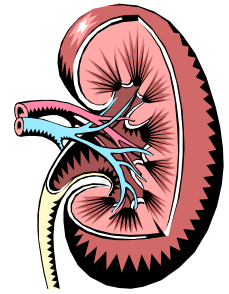
False

- Once I have kidney disease, I will need dialysis

False



Nephropathy



Damage to small blood vessels in the kidney

Micro - albumin – uria
Small amount of protein in urine

- Increased levels - early sign of kidney damage
- If untreated, can lead to loss of kidney function and a need for dialysis



What Can Be Done?

1. Have urine checked yearly
2. Control blood pressure and blood sugar



Nerve Damage

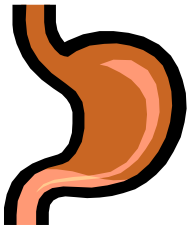
- High blood sugars destroy the protective covering of the nerves **TRUE**
- Nerve damage happens only in people with type 1 diabetes **False**
- Once the pain is gone, I do not have to worry **False**



Neuropathy

Nerve damage may cause:

1. Drop in blood pressure upon standing (risk for falls and injury)
2. Sexual dysfunction (men & women)
3. Silent heart attack
4. Inability to detect low blood sugar symptoms
5. Gastropathy - stomach bloating, constipation, diarrhea



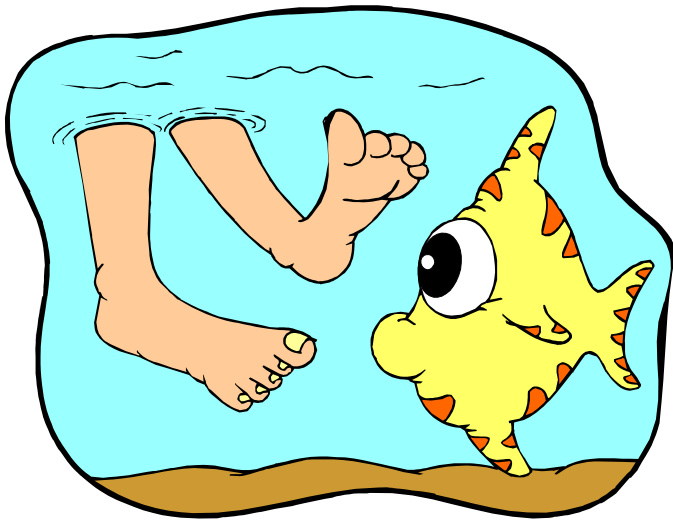
Nerve Damage

Legs and feet may also be affected:

- ✓ Tingling, numbness, burning
- ✓ Pain, loss of sensation
- ✓ Risk for falls, broken bones, infection



Check Your Feet



Take off your shoes
and socks!

What are you looking
for?

- sores, cuts, bruises, or
excessive dryness



True or False

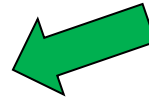
You should take care of your feet by soaking them often....



Foot Care

Protect The Feet!

- Inspect Feet Daily
- Never go barefoot
- Avoid SOAKING! Wash and dry well
- Cut or file nails rounded across the top
- Avoid lotions and powders between toes
- Keep area between toes dry



What Else Can Be Done?

See your doctor 2-4 times a year

Have feet checked at every visit for blood flow and ability to feel



Goal: good pulses
ability to feel

Have blood pressure checked at every visit

Goal: 130/80 or less



What Else Can Be Done to Stay Healthy?

See the dentist 1 to 2 times per year even with dentures

Goal: Early detection and treatment of any problems



Good Hygiene Habits

Goal: Prevent any skin problems



Check skin for wounds & keep skin clean

Don't Smoke

Goal: If you do smoke quit



Smoking can also aggravate many problems that people with diabetes already have, such as heart and blood vessel disease.



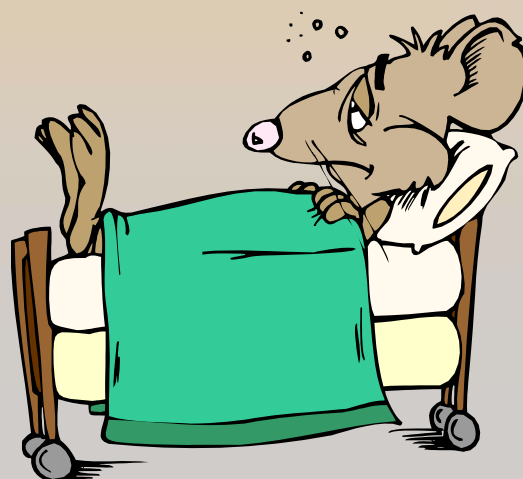
Expanded ABC's of Diabetes

- A: A1C
- B: BP / Microalbumin Check
- C: Cholesterol / Aspirin
- D: Diabetes Education / Dental Care
- E: Eye Exam Yearly (Dilated)
- F: Foot Exam (You check daily) / professional
- G: Glucose Monitoring
- H: Health Maintenance
- I: Indications for Specialty Care





Hyperglycemia- High Blood Sugar How to Manage a “Sick Day”

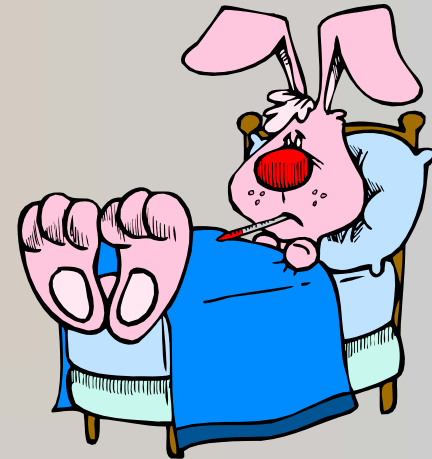


SICK DAYS

What Are Sick Days?

Challenging times for blood sugar control

- Illness
- Infection
- Surgery/ Injury
- Dental Problems
- Sudden Stress





What do you think?

Are people with diabetes more likely to get colds and other illnesses?

No- An illness can make blood sugars more difficult to control.



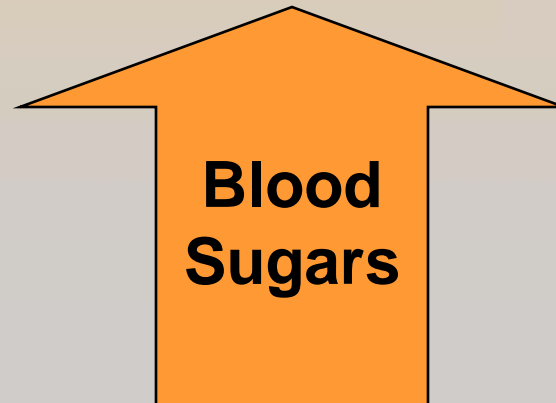
What happens to blood sugars on a sick day?



Sick Day = Stress to the body



Hormones are released to help the body fight the “Stress”





True or False

If you are sick and not eating, you should still take your diabetes medicine or insulin...





Sick Day Plan

1. If you are sick and not eating, you should still take your diabetes medicine, but do call your provider
2. Check your blood sugar more often than usual





Ketones

3. If blood glucose is 250 or higher check urine for ketones (if instructed by your doctor)

**Body burns fat
for fuel**



Ketones

**Ketones and high blood sugars means your body does not
have enough insulin.**

More common with type 1 diabetes



Sick Day Plan

4. May need to increase your fluids

If unable to eat as usual:

- drink fluids with sugar in place of a meal
- switch back and forth between “sugar” drinks & “no sugar” drinks or other liquids



Sick Day Plan

5. Rest and keep warm.

6. Need to call for help if...

- ✓ unable to keep down fluids
- ✓ blood sugar is 250 or higher for at least 2 readings
- ✓ vomiting or diarrhea
- ✓ fever
- ✓ drowsiness, breathing problems, chest or stomach pains





How to be Prepared

- ★ Shopping list for sick day items
- ★ Keep sick day foods available:
 - jello - regular and sugar-free
 - chicken soup



What happens to blood sugars on a sick day?



- Left untreated high blood sugars can lead to a *life threatening illness*
- **Hyperosmolar Hyperglycemic Nonketotic State (HHNS)**
- **Diabetic Ketoacidosis (DKA)**



Stress and Emotions

- ★ Emotional issues must be acknowledged and addressed
- ★ Emotions and stress will affect blood sugar control



Remember your yearly **FLU SHOT**

It's a benefit to
EVERYONE with
diabetes

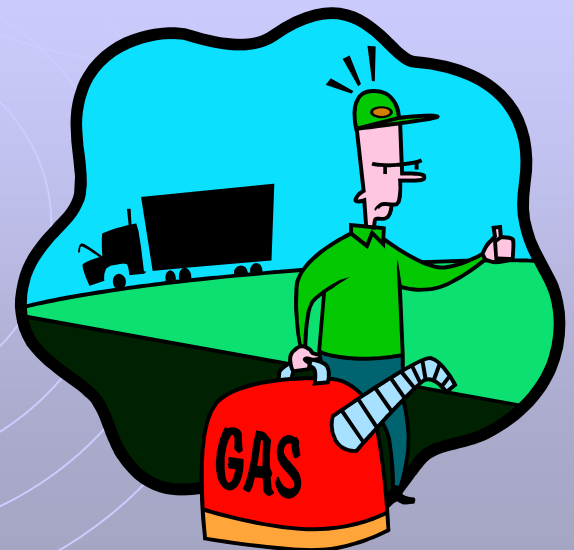


Hypoglycemia (Low Blood Sugar)

Low Blood Sugar

When a blood sugar falls below:

70 mg/dl- you are running out of fuel in your body



Low Blood Sugar

Causes

- Delayed meal
- Skipped meal or not enough food
- Unplanned activity
- Too much medication
- Alcohol consumption on empty stomach

True or False

People with diabetes can always feel when their blood sugar level gets too low...

Low Blood Sugar

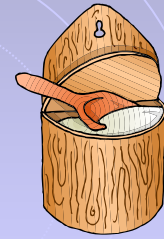


Symptoms

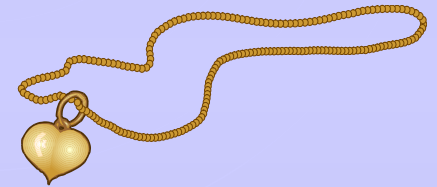
- Dizzy
- Weak
- Confusion
- Irritability
- Sweating
- Hunger
- Slurred Speech

* People with diabetes may experience these symptoms or they may not!

Low Blood Sugar



- Must always carry a source of carbohydrate
- Should always wear medical ID



Must treat ASAP – If unsure of how you are “feeling” then check with meter

Low Blood Sugar

Treat with 15 grams carbohydrate

Suggestions

4 oz fruit juice
3 tsp sugar
4 glucose tablets
10 oz skim milk

8 lifesavers
6 oz regular soda
3 tsp jelly
1 tbsp honey



Low Blood Sugar

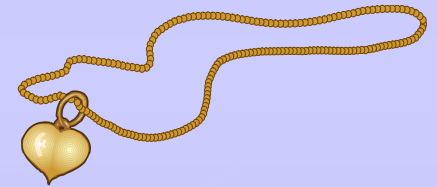
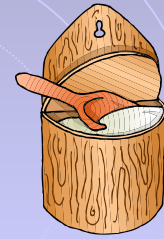
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Low Blood Sugar

Treatment

- Avoid sugar-free or diet choices for a low blood sugar
- Avoid foods high in “fat”
Ex: chocolate, cakes, cookies, pies or ice cream

Fat delays the absorption of sugar

Low Blood Sugar

- Wait 15 minutes and recheck your blood sugar
- If less than 70, retreat and recheck after 15 minutes
- Before driving and bed- make sure the BG is above 100 for safety

Emergency

- If a person is found unconscious or is unable to sit-up and safely swallow

It's an Emergency

- Never put anything into the mouth of a person who can't safely sit-up and swallow
- Administer Glucagon if indicated
- Call 911

Glucagon

- not instant sugar
- obtain with prescription
- good until the expiration date
- anyone can be trained
- always have available for an emergency
- side effect of nausea/vomiting
- must be turned on your side after shot given



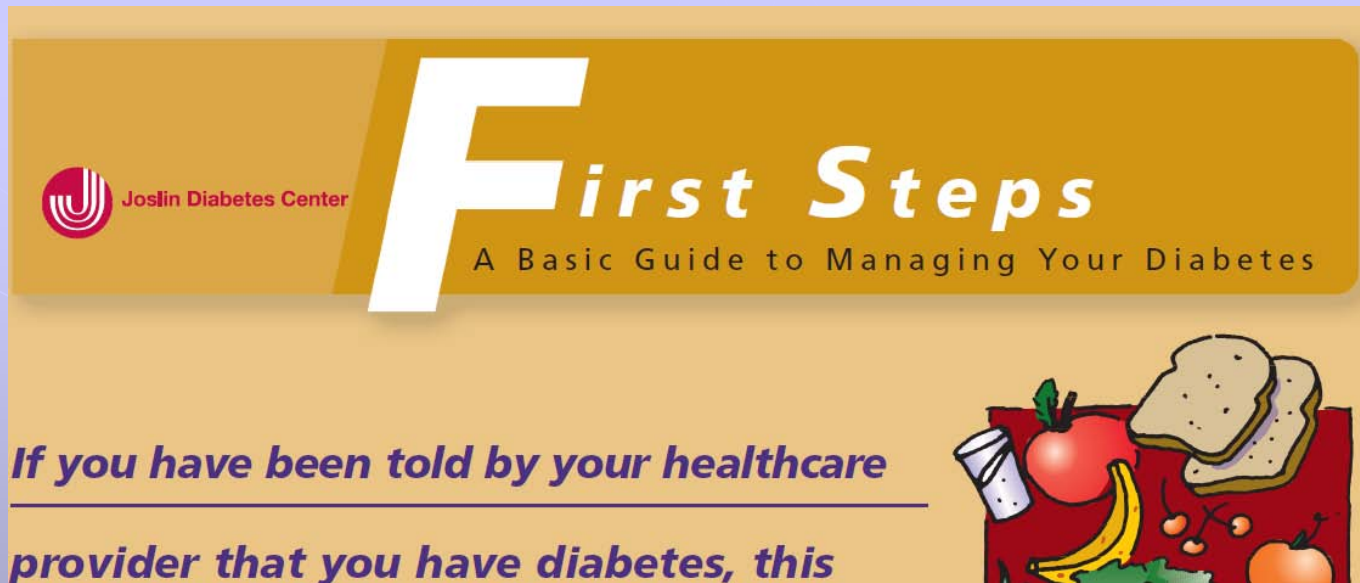
Go to the Patient Education link on the internal Upstate website




Select the Diabetes/Joslin Adult category



Check out all the great education materials!




 Joslin Diabetes Center

First Steps

A Basic Guide to Managing Your Diabetes

If you have been told by your healthcare provider that you have diabetes, this



An illustration of various healthy food items including a glass of water, an apple, a banana, a sandwich, and oranges, symbolizing a balanced diet for diabetes management.

Online Diabetes Resources to Learn More:

1. **National Diabetes Education Program** 1-888-693-NDEP (1-888-693-6337) www.YourDiabetesInfo.org
2. **Diabetes HealthSense**: An online library of resources for living well. www.YourDiabetesInfo.org/HealthSense
3. **Academy of Nutrition and Dietetics** 1-800-877-1600 www.eatright.org
4. **American Association of Diabetes Educators** 1-800-338-3633 www.diabeteseducator.org
5. **American Diabetes Association** 1-800-DIABETES (1-800-342-2383) www.diabetes.org
6. **American Heart Association** 1-800-AHA-USA1 (1-800-242-8721) www.americanheart.org
7. **Centers for Disease Control and Prevention** 1-800-CDC-INFO (1-800-232-4636) www.cdc.gov/diabetes
8. **Centers for Medicare & Medicaid Services** 1-800-MEDICARE (1-800-633-4227) www.medicare.gov
9. **JDRF** 1-800-533-CURE (1-800-533-2873) www.jdrf.org