What do you know about how your blood sugar impacts your health?

What are you doing to care for yourself now?
## What is Diabetes?

<table>
<thead>
<tr>
<th>Type 1</th>
<th>Type 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pancreas produces little or NO insulin</td>
<td>Pancreas produces some insulin</td>
</tr>
<tr>
<td>Develops suddenly</td>
<td>Insulin resistance (cells do not use insulin properly)</td>
</tr>
<tr>
<td>Insulin dependent</td>
<td>Develops over time</td>
</tr>
<tr>
<td></td>
<td>Use of medications and/or insulin may vary</td>
</tr>
<tr>
<td></td>
<td>Lifestyle and genetic factors</td>
</tr>
</tbody>
</table>
Blood Glucose

- The food you eat is broken down into glucose
- Then it enters your bloodstream
- Glucose can only enter your cells if **insulin**, produced from your pancreas, is there to help and works properly
Name 3 ways to reduce insulin resistance. What can you do to help the key unlock the cell door?
Reduce Insulin Resistance

- Reduce Inflammation
  - Lose belly fat
  - Focus on unprocessed, plant-based foods
  - Exercise regularly
  - Manage stress and depression
  - Sleep well
# Diabetes Diagnosis

<table>
<thead>
<tr>
<th>Range</th>
<th>HgbA1C</th>
<th>Fasting Glucose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>4.4-5.6</td>
<td>60-99</td>
</tr>
<tr>
<td>Prediabetes</td>
<td>5.7-6.4</td>
<td>100-125</td>
</tr>
<tr>
<td>Diabetes</td>
<td>6.5 and above</td>
<td>126 and above</td>
</tr>
</tbody>
</table>
Can you reduce your risk for long-term complications?

- Heart disease
- Stroke
- Blindness
- Kidney failure
- Amputations

Special note for women

Women with diabetes **must** control blood sugar **before** pregnancy and have a healthy weight. Discuss the safety of all medications and supplements with your provider. If you are not ready or don’t want to become pregnant talk with your provider about effective birth control options. Plan for a healthy family!
6 Ms of Diabetes Self Care

Motivation

Mood

Monitor

Medication

Meals

Motion
Monitor

How often do you test?

- Before Meals 70-130
- 2 hrs. After Meals less than 180
- Before Bed 100-140

- Use a new lancet and test strip
- Clean and dry hands, no lotion
- Use lowest effective setting
- Rotate testing site
- Dispose of sharps properly
- Call manufacturer with questions
- Record your readings (see sample glucose log)
Hyperglycemia
High blood sugar

- **Symptoms**
  - Frequent urination
  - Thirst
  - Vision changes
  - Weak, tired, sleepy
  - Nauseated
  - Confused, anxious
  - Headache, hungry
  - Unexpected weight loss

- **Causes**
  - Missing your medications
  - Illness, infections, injury
  - Hormonal changes
  - Diet
  - Stress
Treating High Blood Sugar

- Test your blood sugar
- Drink water or fluids without sugar or caffeine
- Take your medications if you missed them
- Modify diet (do not skip a meal)
- Increase activity
Hypoglycemia
Low blood sugar

- Symptoms
  - Anxious, nervous
  - Sleepy
  - Sweaty, shaky
  - Angry, irritable
  - Slurred speech
  - Confusion, headache
  - Hunger
  - Vision changes

- Causes
  - Skipping meals
  - More than 4 or 5 hours between meals
  - More active than usual
  - Too much insulin or medication
  - Alcohol (without meal)
<table>
<thead>
<tr>
<th>Eat Sugar</th>
<th>Wait 15 minutes</th>
<th>Eat a Meal</th>
</tr>
</thead>
</table>
| - If blood sugar is less than 70, take 15 grams of fast acting sugar  
- If less than 50, take 30 grams  
- 4 oz. fruit juice/soda, 8 oz. milk, 4 glucose tablets, 4 sugar packets or 1Tbsp. honey/syrup | - Rest for 15 minutes, then recheck  
- If still less than 70, take another 15 grams of sugar  
- If still low after 3 tries, call Kaiser Advice Line or go to the nearest emergency room | - Eat a substantial snack or meal with carbohydrate  
- Apple with nuts  
- Yogurt with fruit  
- Healthy Eating Plate Method (balanced) meal |
Contact Your Medical Provider If...

- You faint or feel confused
- Your blood sugar is over 300 for 2 days
- Your blood sugar is less than 70 three times in one week
- You lack water in your body:
  - No urination for 8 hours
  - Dry or cracked lips

Call 911 for medical emergencies
Meals

See *Eating Well With Diabetes and Carbohydrate Basics* and *Food for Thought* fliers

<table>
<thead>
<tr>
<th>Eat Regularly</th>
<th>Avoid Processed Foods</th>
<th>Eat a Variety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eat 3 meals a day</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eat every 4 to 5 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add a snack if needed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limit fatty, sugary and salty foods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limit sweetened beverages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eat whole, unprocessed foods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus on plants</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Food for Thought

What is included in a “health promoting” diet?

www.ForksOverKnives.com

(click to watch 2 minute film trailer)
Benefits of a plant-based diet

– Lower risk of death from ischemic heart disease and stroke
– Lower LDL “bad” cholesterol levels
– Lower rates of hypertension
– Lower risk of type 2 diabetes
– Lower body mass index (BMI)
– Lower overall cancer rates
– Lower risk of heart failure
– 73 percent decrease in coronary events, like a heart attack
– 70 percent decrease in the risk of dying from a coronary event
Foundational foods to promote health

Mediterranean, DASH and Vegetarian Diets emphasize plants:

- Whole Grains
- Vegetables
- Fruits
- Beans
- Peas
- Lentils
- Nuts
- Seeds

“Research on a [low fat 100% plant based] diet has found that carb and calorie restrictions were not necessary and still promoted weight loss and lowered participants' A1C.”
- American Diabetes Association

“People on the low-fat 100% plant based diet reduced their HbA1C levels by 1.23 points, compared with 0.38 points for the people on the American Diabetes Association diet. In addition, 43% of people on the low-fat [plant-based] diet were able to reduce their medication, compared with 26% of those on the American Diabetes Association diet.”
- The Permanente Journal, Spring 2013
Healthy Eating Plate

Plant-Based Options

Choose plant-based milk instead of cow’s milk
- soy, almond, rice, oat

Choose plant-based protein at meals instead of animal proteins
- beans, peas, lentils
- nuts, seeds, nut butters
- tofu and soy foods

Discuss individual dietary needs with your provider or registered dietitian.
Read Food Labels

- Start with Serving Size
- Low Fat (3g or less per serving)
- Low Sodium (2300mg or less daily)
- Fiber: 3 grams or more per serving, add slowly over 2-3 weeks
- Drink 6-8 cups of fluids per day to keep things moving (unless otherwise indicated)
- Buy whole, cracked or rolled grains
- Buy whole foods (single ingredient) or minimally processed foods (few ingredients)
Nutrition Classes

Sign up today!

- **Serving Up Health**: Introduction to nutrition, dining out, portion distortion

- **Diabetes Nutrition**

- **Plant-Based Nutrition**: Plant-based menus and recipes
  - While avoiding meat entirely is not for everyone, eating a diet with few or no animal products and lots of plant foods has long been associated with lower rates of disease.
What Do You Get From Regular Exercise?

“If exercise could be packed into a pill, it would be the single most widely prescribed and beneficial medicine in the nation.”

—Robert Butler, M.D. International Longevity Center
The Benefits of Regular Exercise

- Raises HDL, reduces LDL and triglycerides
- Helps lose or maintain weight
- Lowers blood pressure, blood sugar
- Strengthens heart, lungs, bones
- Improves flexibility, balance, posture
- Raises metabolism and energy level
- Improves memory and brain function
- Tones muscles
- Boosts self-esteem
- Boosts immune system
- Reduces emotional stress
- Improves blood circulation
- Reduces depression and anxiety
- Helps regulate hormones, sleep cycle
- Enhances sense of well-being

Reduced risk for Alzheimer’s disease, cancers, dementia, depression, diabetes, heart attack, heart disease, high blood pressure and osteoporosis
Get F.I.T.T. Today

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Intensity</th>
<th>Time and Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Try not to skip more</td>
<td>Are you able to talk?</td>
<td>20 minutes 7 days or 30 minutes 5 days</td>
</tr>
<tr>
<td>than two days in a</td>
<td>Can you sing?</td>
<td></td>
</tr>
<tr>
<td>row</td>
<td>Can you whistle while you work?</td>
<td>Which aerobic, strength training, or flexibility</td>
</tr>
<tr>
<td>All at once or in small</td>
<td></td>
<td>exercises do you enjoy?</td>
</tr>
<tr>
<td>amounts throughout the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>day</td>
<td></td>
<td></td>
</tr>
</tbody>
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- Are you able to talk?
- Can you sing?
- Can you whistle while you work?
Medication Guidelines

- Take your medication as prescribed
- Pills or insulin **DO NOT** take the place of healthy habits
- Talk with your doctor **before** you stop or change medications
- Talk with a pharmacist before taking over-the-counter medications
- Always discuss potential side effects
- Wear a medical alert bracelet or carry a wallet card for emergencies
Medications

- **Metformin (Glucophage®)**
  - Keeps the liver from releasing too much glucose
  - May take with food

- **Glipizide (Glucotrol®)**
  - Helps the pancreas to make more insulin
  - Take 30 minutes before a meal

- **Insulin**
  - Helps the body get the blood sugar into the cells and out of the bloodstream
Mood

“Studies show that people with diabetes have a greater risk of depression than people without diabetes. There are no easy answers about why this is true.”

-American Diabetes Association

Depression and Stress

- The fight or flight response can cause blood sugars to rise.
- Contact your doctor if you experience loss of pleasure or energy, changes in appetite or sleep, trouble concentrating, feelings of guilt or suicidal thoughts.
- Call 911 for emergencies
Motivation

- How does motivation affect diabetes?
- How can we become motivated?
  - Action creates motivation

- If you feel resistant to making changes, it’s normal.
  - Resistance to change is universal. Don’t let it stop you.
  - Make the changes anyway and show resistance who’s boss.

“Resistance is not out to get you personally. It doesn't know who you are and doesn't care. Resistance is a force of nature. It stunts us and makes us less than we are and were born to be.”

Steven Pressfield, *The War of Art*
My SMART Plan
Telephone Wellness Coaching 1-866-251-4514

- **Set a Behavioral Goal**
  - Observable, measurable, short-term, achievable, challenging

- **Monitor Your Progress**
  - Tracking behavior changes behavior

- **Arrange Your World for Success (home or work place)**
  - List 3 ways to make the healthy choice easier

- **Recruit Support**
  - Ask for the support you need

- **Treat Yourself**
  - Behavior that is rewarded is repeated
Resources: Film and Books

- *A Film That Can Save Your Life* currently for sale in Kaiser Health Promotion Centers $20
- *Forks Over Knives* currently for sale in Kaiser Health Promotion Centers $15
- *Dr. Neal Barnard’s Program for Reversing Diabetes* currently for sale in Kaiser Pharmacy Centers $6.95
- *Plant-Based Nutrition* currently for sale in Kaiser Health Promotion Centers $31