#### **Diabetes-Facing it Head On!**

Going for the 3 Increases: Increase in Health, Increase in Happiness & Increase in Energy

Strategies for Success in Health Management

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### What is Type 2 Diabetes?

- Type 2 diabetes strikes people of all ages
- Its early symptoms are subtle
- About one out of three people with type 2 diabetes don't know they have it
- This chronic condition thwarts the body's ability to use the carbohydrates in food for energy
- The result is elevated blood sugar
- Over time, this excess sugar raises the risk for heart disease, loss of vision, nerve and organ damage, and other serious conditions



# Why Diabetes Needs to be Taken Seriously

- Diabetes is a major cause of heart disease & stroke
- Diabetes is the seventh leading cause of death in the United States
- Type 2 diabetes accounts for 90% to 95% of all diagnosed cases of diabetes
- Overall, the risk for death among people with diabetes is about twice that of people of similar age who don't have diabetes



#### **Health Risks of Diabetes**

Diabetes with elevated blood sugars can cause:

- Eye damage & Blindness
- Heart disease
- Nerve & blood vessel damage
- Kidney disease
- High blood pressure is a common complication of diabetes
- Gum disease is also more common in people with diabetes



### **Diabetes and Depression**

- According to the CDC
- Depression is twice as common among people with diabetes as among other people

#### But it's not clear

- which comes first, the depression or the diabetes
- or that one causes the other



#### **What Causes Diabetes**

- Diabetes is caused by problems related to the hormone insulin, which helps turn blood sugar (glucose) into energy
- With type 2 diabetes, a problem called insulin resistance happens when the body's cells can't use insulin properly,
   & the pancreas makes an abundance to overcome the increase in blood glucose levels
- When this happens, the pancreas can gradually lose its ability to make insulin
- the increased amount of sugar in the blood can damage nerves and blood vessels & Chronically elevated blood sugars lead to such complications as heart disease, stroke, and kidney disease



#### What Are the Symptoms of Diabetes?

#### **Common symptoms of diabetes include:**

- Excessive thirst & appetite
- Increased urination (sometimes as often as every hour)
- Unusual weight loss or gain
- Fatigue
- Nausea, perhaps vomiting
- Blurred vision
- In women, frequent vaginal infections
- In men and women, yeast infections
- Dry mouth
- Slow-healing sores or cuts
- Itching skin, especially in the groin or vaginal area



# **Symptom Differences Between Diabetes Type1 and Diabetes Type 2**

- People with type 2 diabetes often do not have any symptoms-Symptoms in type 1 diabetes usually come on much more suddenly and are often severe
- An estimated 27% of all people with diabetes (not just type 2 diabetes) don't know they have it
- When symptoms do occur, they are often ignored because they may not seem serious
- Type 2 diabetes was once called adult-onset diabetes & the vast majority of people with type 2 diabetes are adults.
- Type 2 diabetes can develop at any age & children are being diagnosed with it more frequently.



# Diabetes Symptom: Acting Drunk or Losing Consciousness

- Your brain can be affected if your sugar level drops too low
- Low glucose can cause you to stagger, slur words, or even pass out
- You can wear a medical bracelet or necklace that lets people know you have diabetes
- If your blood sugar gets too low, take in about 15 to 20 grams of a simple carb which may help (half a cup of orange juice, 2 tablespoons of raisins, or a tablespoon of sugar)



#### **Diabetes Symptom: Excessive Urination**

If your blood sugar is too high you may find yourself:

- Waking at night to urinate and urinating larger amounts than usual can mean something is wrong
- It's normal to release as much as 84 ounces of urine a day-that's about 2 liters. Since you probably don't measure your urine output at home, you may have to figure out whether you're making too much of it



#### **Diabetes Symptom: Excessive Thirst**

- Being thirstier than usual can be brought on by warm weather, salty foods, or an increase in your workout routine
- But your thirst can also be brought on also by too much urination
- You need to continue to drink when you're thirsty. If you're dehydrated, though, you may need medical care
- Thirst may mean your body is signaling you to drink more
- Urinating and drinking more than a gallon a day is a signal that something is wrong.



# Diabetes Symptom: Losing weight while eating normally

- When your glucose is high, you may be losing calories in your urine
- Your body is making you hungry and thirsty to keep up with the lost fluids and calories
- You need to see your doctor to discuss your diet or have your medications adjusted accordingly



### Diabetes Symptom: Extreme Fatigue

- If you are still exhausted after 7 to 8 hours of sleep per night is a problem
- Glucose is your main source of energy, but if it's too high, your body isn't able to use it properly
- You need to see your doctor to discuss your diet or have your meds adjusted accordingly
- If you can't get out of bed, feel dizzy, or nauseated, call 911



#### **Diabetes Symptom: Slow Healing**

- Small cuts, bloody gums, infections & sores usually heal in a few days, but white blood cells, which fight infection, are dependent on glucose levels being right. They can become slow to respond to infections when your glucose is high.
- You need to inspect your skin twice a day, paying special attention to your feet
- Nerve damage from diabetes can prevent you from feeling irritations that can develop into sores
- If you find wounds that don't heal in a few days, see your doctor to discuss your diet or have your meds adjusted



#### **Diabetes Symptom: Eye problems**

- When your blood sugar shifts, it can make the lens of your eye shrink or swell, causing the vision to blur or create little spots called floaters
- This in itself is usually not a big concern, but you should see an ophthalmologist to be sure. If part of your normal range of vision is missing, call 911



#### Other Diabetes Symptoms to Watch For

- Shoulder pain
- Nausea
- Discomfort in arms, jaw, or chest
- People with diabetes have a greater risk of heart disease, so these symptoms should not be ignored, even if they go away and come back
- Also take note of shortness of breath, fainting, or breaking out in a cold sweat. Call 911 if you have any of these symptoms.



### **Keep on Track Dealing with Diabetes**

- Testing every day is the best way to track your blood sugar
- Ask your medical team what your target blood sugar range should be
- Find out what to do if your blood sugar lands in the high or low range or when you should test your urine for ketones
- You should call your doctor right away if your urine contains ketones.



#### People with Type 2 Diabetes Need to:

- Watch their weight and maintain a healthy, balanced diet
- In moderation, and as part of a healthy meal plan, desserts or other sugary foods are not off limits



### Risk Factors for GettingType 2 Diabetes

- Obesity
- Age being 45 & older increases your risk
- Family history
- Inactivity
- Ethnicity (people of African, Asian, Pacific Islander, American Indian, and Latino heritage have a higher risk)
- But having one or more of the risk factors doesn't mean you'll get type 2 diabetes.



## Type 2 Diabetes can be Prevented

- Type 2 diabetes usually doesn't start suddenly
- Some people are first diagnosed with prediabetes (also known as impaired glucose tolerance or impaired fasting glucose)
- Lifestyle changes, such as weight loss if you are overweight, dietary improvements, and exercise, can often ward off full-blown diabetes
- Some people at high risk for developing type 2 diabetes can reduce their risk further by taking the drug metformin with a lifestyle change



#### Lifestyle Change Can Prevent Type 2 Diabetes

- In a recent study, people at high risk for type 2 diabetes were put on a weight loss and physical activity plan for three years
- Researchers found that it reduced their chances of developing type 2 diabetes by 58% and by 71% if they were age 60 or older



#### **Risk Factors You can Control**

Health habits & medical conditions related to your lifestyle can increase the odds of developing type 2 diabetes:

- Being overweight, especially at the waist
- A sedentary lifestyle
- Smoking
- A diet high in red meat, processed meat, high-fat dairy products & sweets
- Abnormal cholesterol & blood fats, such as HDL "good" cholesterol lower than 35 mg/dL &/or triglyceride level over 250 mg/dL



## **Specific Risk Factors for Women**

- Having gestational diabetes when you're pregnant puts you at higher risk for developing type 2 diabetes later on
- Women who give birth to a baby weighing over 9 pounds are also at risk
- Having a history of polycystic ovary syndrome can also cause insulin resistance that can lead to diabetes



#### **How Does Insulin Work?**

- In a healthy person, insulin helps turn food into energy in an efficient manner
- The stomach breaks down carbohydrates from food into sugars, including glucose
- Glucose then enters the bloodstream, which stimulates the pancreas to release insulin in just the right amount
- Insulin, a hormone, allows glucose to enter cells throughout the body, where it is used as fuel
- Excess glucose is stored in the liver



#### Type 2 Diabetes: Metabolism Mishaps

- In type 2 diabetes cells cannot absorb glucose properly
- That means glucose levels in the blood become elevated
- If you've developed a condition called insulin resistance, the body makes excess insulin, but the muscle, liver, and fat cells do not use or respond properly to the insulin
- With long-standing uncontrolled type 2 diabetes, the pancreas will reduce the amount of insulin it produces



### **Managing Diabetes: Diet**

- Controlling blood sugar levels by changing diet & losing excess weight can also cut risk of complications
- People with type 2 diabetes should carefully monitor carbohydrate consumption & keep the amounts of carbs in meals fairly consistent, as well as total fat & protein intake, and reduce calories
- Ask your doctor for a referral to a registered dietitian to help you with healthy choices and an eating plan that will work for you.



### **Managing Diabetes: Exercise**

- Routine exercise, such as strength training or walking, improves the body's use of insulin and can lower blood sugar levels in people with type 2 diabetes
- Being active also helps reduce body fat, lower blood pressure, and protect against heart disease
- People with type 2 diabetes should try to get 30 minutes of moderate exercise on most days of the week



#### **Managing Diabetes: Stress Reduction**

- Stress can cause blood pressure to rise
- Stress can also increase glucose levels in your blood as part of your "fight or flight" response
- Or you may turn to food to cope with stress
- All are bad when living with diabetes
  Instead of letting stress take its toll:
- Try practicing relaxation techniques such as deep breathing, meditation, or visualization
- Sometimes talking to a friend, family member, counselor, or member of the clergy can help
- If you're still battling stress, reach out to your medical team



#### **Managing Diabetes: Oral Medications**

- When people with type 2 diabetes are unable to control blood sugar sufficiently with diet and exercise, medication may be added
- There are many types of diabetes pills available, and they are often used in combination
- Some work by stimulating the pancreas to make more insulin, and others improve the effectiveness of insulin, or block the digestion of starches
- Some medications used to treat type 2 diabetes also help inhibit the breakdown of insulin



#### **Managing Diabetes: Insulin**

- Your doctor may prescribe insulin early on in your treatment and in combination with pills
- Insulin can also used in people with type 2 diabetes who develop "beta-cell failure" - This means the cells in the pancreas no longer produce insulin in response to high blood sugar levels
- In this case, insulin therapy injections or an insulin pump - must become part of the daily routine



# Managing Diabetes: Non-insulin Injectables

- New non-insulin injectable drugs are available for people with type 2 diabetes
- Pramlintide (Symlin)
- Exenatide (Byetta)
- Liraglutide (Victoza)

Whereas insulin pulls glucose into the cells, these medications cause the body to release insulin to control blood sugar levels



### **Managing Diabetes: Glucose Testing**

 Testing your blood glucose level will let you know how controlled your blood sugars are & if you need to take actions to change your treatment plan

How often & when you test will be based on

- 1. How controlled your diabetes is
- 2. Type of therapy used to control your diabetes
- Whether you are experiencing symptoms of fluctuating sugars

Talk with your doctor to find out how often you should use a glucose meter to check your blood sugar. Some common testing times may be when waking up, before and after meals and exercise, and at bedtime



# So Are You Ready to Deal with Diabetes in Your Life?

- Our hope is that in reviewing these issues you are motivated to work on improving your approach to preventing or dealing with Diabetes in your life
- We hope you will be willing to work on your diabetes prevention or treatment issues within the Support Services we offer here in your clinic.
- We look forward to working with you on your diabetes related issues