

# **“Diabetes”**

Rochester Recreation  
Club for the Deaf  
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# Supporters

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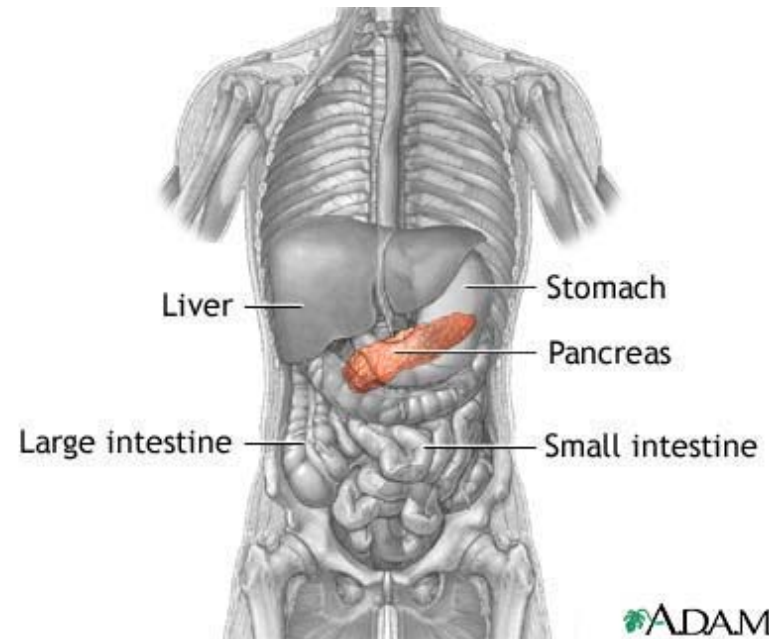
# Overview

- What is diabetes?
- How common is diabetes?
- Symptoms and signs of diabetes
- Prevention
- Treatments



# What is Diabetes?

- Diabetes occurs when your body does not make enough insulin for your needs.
- Insulin: a hormone that helps the body to use the sugar in the blood. No insulin → body can't use sugar (glucose) for energy
- High glucose will happen. This causes damage in your body.



ADAM.

\*Medline Plus Medical Encyclopedia Images



# What is Diabetes?

- Type I Diabetes (not common)
  - Children and young adults
  - No insulin is made
  - Completely dependent on insulin by injection
- Type II (most common)- 90-95% of diabetics
  - Older adults
  - Obesity is the strongest risk factor
  - Not enough insulin is made for the body



# What is diabetes?

- Gestational Diabetes
  - Occurs in 4% of pregnant females
  - Risk of very large babies that are poorly developed
  - 25-50% of people with gestational diabetes develop Type II diabetes
- Prediabetes (very common)
  - Obesity is the main cause
  - Strong risk for developing diabetes

<http://www.diabetes.org/diabetes-basics/gestational/what-is-gestational-diabetes.html>



# How Common is Diabetes?

- 23.6 million Americans (7.8%)
- Diagnosed: 17.9 million people
- Undiagnosed: 5.7 million people
- Pre-diabetes: 57 million people
- New Cases: 1.6 million new cases of diabetes are diagnosed in people aged 20 years and older each year

\*American Diabetes Association <http://www.diabetes.org/diabetes-basics/diabetes-statistics/>



# Who has diabetes?

- 6.6% of non-Hispanic whites
- 7.5% of Asian Americans
- 11.8% of non-Hispanic blacks
- 10.4% of Hispanics

\*American Diabetes Association <http://www.diabetes.org/diabetes-basics/diabetes-statistics/>



# Is diabetes dangerous?

- Diabetes was the seventh leading cause of death listed on U.S.
- BUT!!!
- Diabetes increases your risk by 200-400% for stroke and heart disease!
- This means a total of 233,619 deaths from diabetes!

\*American Diabetes Association <http://www.diabetes.org/diabetes-basics/diabetes-statistics/>



# Is diabetes dangerous?

- #1 cause of blindness in adults
- #1 cause of amputations
- #1 cause of kidney failure
- Diabetes also causes:
  - High blood pressure
  - Nerve damage (neuropathy)

\*American Diabetes Association <http://www.diabetes.org/diabetes-basics/diabetes-statistics/>



# Costs of Diabetes

- \$174 billion: Total costs of diagnosed diabetes in the United States in 2007
  - \$116 billion for direct medical costs
  - \$58 billion for indirect costs (disability, work loss, premature mortality)
- A person with diabetes has medical costs that are on average 2.3 times higher than a person with no diabetes!

\*American Diabetes Association <http://www.diabetes.org/diabetes-basics/diabetes-statistics/>



# Who's at risk for diabetes?

- Overweight or Obese\*\*\*
- Family Members with Diabetes
- Sedentary (little or no exercise)
- Hispanics, African-Americans  
Native American Indian, Pacific Islander
- History of High Blood Pressure
- History of Pancreatitis



<http://www.doctorsecrets.com/your-medicine/diabetes-causes-picture.gif>



# How do I know if I have diabetes?

- Symptoms:
  - Frequent urination
  - Very thirsty
  - Tired all the time
  - Dizziness
  - Weight loss (not intended)

\*\*But most have no symptoms when they start diabetes!



# Type of tests

- Finger stick glucose test (sugar check)\*\*
- Hemoglobin A1c
  - Used for monitoring your diabetes control
  - Poorly controlled diabetes have A1c over 7
  - Most non-diabetics have A1c from 4 to 6
- Oral glucose tolerance tests



<http://www.opt.indiana.edu/ce/diabetic/graphics/glucometer.jpg>



# Testing

- Repeated fasting glucose levels above 126
  - Goal glucose (sugar) should be less than 100
- Single glucose level above 200 with symptoms of diabetes
- 2 hour glucose above 200 with oral glucose tolerance test
- Hemoglobin A1c- not used to show if you have new diabetes
  - Useful to show how well you control your diabetes



# Prevention

- Physical activity
- Lose weight
- Eat healthy
- Avoid smoking
- Avoid excessive alcohol



# Physical Activity

- Helps us to get stronger
- Helps us to lose weight
- Helps us to control our blood sugar
- Goal is 45-60 minutes daily

Examples: Swimming, biking, running, walking, weight lifting, sport activities



# Eat Healthier

- Eat smaller amounts of food
- Eat more vegetables and fruits
- Use whole grains rather than processed grains
- Eat lean (less fat) protein
- Use nuts



# Avoid these foods

- Sweeteners such as high fructose corn syrup or sugar
- Fast foods
- Trans-fats (man made fats)
  - Partially hydrogenated oils
  - Hydrogenated oils
- Lot of animal meat
- White bread or white rice (“processed grains”)



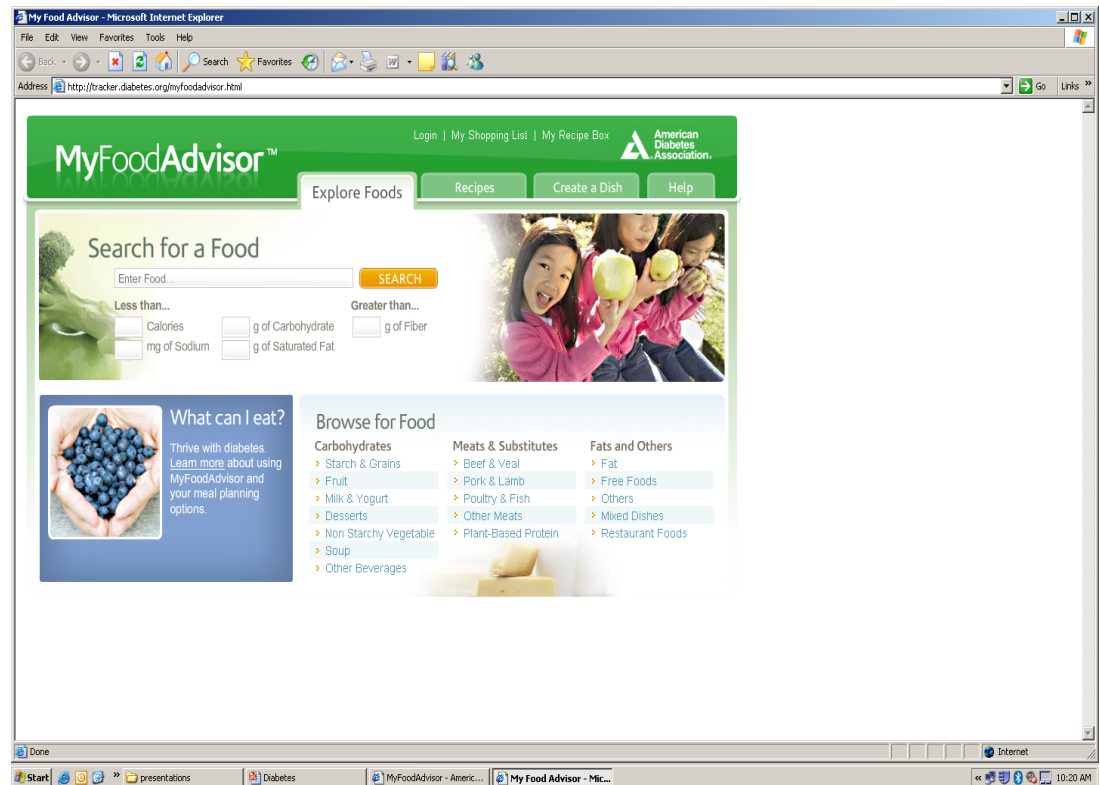
# Food Advisors

Check out websites that can advise how to eat healthier

• <http://www.diabetes.org/food-and-fitness/food/my-food-advisor/>

• Can help count calories

• Can help count carbohydrates



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# Diabetes Treatments

- Metformin (Glucophage)
  - Usually first type of medication used
  - Those with poor kidneys should not use this
- Pioglitazone (Actos)
- Rosiglitazone (Avandia)
  - May cause swelling in legs
  - Those with heart failure should not use this
- Glipizide (Glucotrol)
- Glimipremide (Amaryl)
  - May cause low sugar for older people
  - Medication loses effectiveness when your pancreas fail



# Diabetes Treatments

- Long Acting (once daily)
  - Lantus
  - Levimir
- Medium Acting (twice daily)
  - Novulin
  - 70/30
- Short acting (prior to meals)
  - Regular insulin
  - Novolog
  - Humalog



<http://www.bd.com/resource.aspx?IDX=4150>



# Other Good Diabetes Treatments

- Fish oil (omega 3 fatty acids)
  - Lowers triglycerides (fatty blobs) in blood
- Aspirin 81 mg daily
  - Reduces risk for heart attack and stroke



# Check ups required

- Follow up with your doctor regularly!
  - Most diabetics should see their doctor every 3 months to monitor their diabetes
- Feet should be checked daily



[http://www.jmu.edu/news/madisonscholar/wm\\_library/wound1.jpg](http://www.jmu.edu/news/madisonscholar/wm_library/wound1.jpg)



# Check ups required

- Follow up with eye doctor at least once a year
- Get your shots!
  - Flu shots
  - Pneumonia shots



Normal vision



Vision with  
diabetic retinopathy

[http://www.ttkhealthcareservices.com/Pages/MedPages/pics/DRetinopathy\\_pic1.jpg](http://www.ttkhealthcareservices.com/Pages/MedPages/pics/DRetinopathy_pic1.jpg)



# Questions???

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- Thank you!
- Next Deaf Health Talk on February, 2009

