Diabetes mellitus

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What is Diabetes?
Diabetes mellitus
How insulin act?
The Role of Insulin

Key: insulin
Receptor
Red blood cell
Glucose
Bloodstream

Infographic by Renee Gordon
Insulin & Sugar Always together
NATION FACES RISING RATES OF TYPE 2 DIABETES

I'M LEARNING TO MANAGE MY TYPE 2 DIABETES WITH INSULIN!
Diabetes Mellitus

- **Type 1 Diabetes**
  - insulin producing cell destroyed
  - insulin dependence
  - before 13 years

- **Type 2 Diabetes**
  - Lack of insulin action (resistant cells)
  - commonly detected after 40 years

- **Gestational Diabetes**
  - during pregnancy
Types of Diabetes Mellitus

- **Type 1:**
  - Body's failure to produce insulin.
- **Type 2:**
  - Insulin resistance
  - Sometimes combined with relative insulin deficiency.
- **Gestational diabetes:**
  - Gestational diabetes affects about 4% of all pregnant women.
  - It may precede development of type 2.
RISK
SIGNS & SYMPTOMS
Signs and Symptoms

- Polyuria (excessive urination)
- Polydipsia (excessive thirst)
- Polyphagia (strong desire to eat)
- Weight loss
SYMPTOMS OF DIABETES

Always tired.

Frequent urination.

Always hungry.

Sudden weight loss.

Sexual problems.

Wounds that won't heal.

Vaginal infections.

Always thirsty.

Numb or tingling hands or feet.

Blurry vision.
Later Symptoms

• Fatigue
• Dry skin
• Abnormal high frequency of infection
• Feet Ulceration
• Loss of sensibility in lower extremities
• Erectile dysfunction
• Slow Healing of wounds or sores
• Changes in vision
Am I diabetic patient?
Do you know what YOUR NUMBERS mean?

Fasting Glucose Ranges

- **Diabetes**: 126 or more mg/dL
- **Pre-Diabetes**: 100 - 125 mg/dL
- **Normal**: 99 or less mg/dL
## Blood Glucose Chart

<table>
<thead>
<tr>
<th>Mg/DL</th>
<th>Fasting</th>
<th>After Eating</th>
<th>2-3 hours After Eating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>80-100</td>
<td>170-200</td>
<td>120-140</td>
</tr>
<tr>
<td>Impaired Glucose</td>
<td>101-125</td>
<td>190-230</td>
<td>140-160</td>
</tr>
<tr>
<td>Diabetic</td>
<td>126+</td>
<td>220-300</td>
<td>200 plus</td>
</tr>
</tbody>
</table>
Non-Diabetic (Blue) v. Diabetic (Red) Mealtime Blood Sugars

Blood Sugars

Hours
Blood sugar is too low if it is under 70

Blood sugar is too high if it is over 240
My life span is 3 months; I will keep your glucose level footprint.

Hemoglobin
Glycate Haemoglobin
Know Your A1c!
The blood test with a memory

- poor control — more than 8
- be careful — more than 7
- good control — less than 7
Why should we stop Diabetes?
Complications of Diabetes:
- Brain (stroke, TIA)
- Eye (blindness)
- Heart (angina, heart attack)
- Kidney disease
- High blood pressure
- Male organ (erectile dysfunction)
- Loss of legs or feet
- Peripheral neuropathy (nerve disease)
Cataract
Heart Disease
Neuronal Disease
DIABETES MELLITUS (Type 2)
A Winning Plan to Lower Risks for Diabetes

- Lose Weight
- Get Active
- Enjoy a heart-healthy life
Healthy Life

- Exercise Regularly
- Eat Healthy
- Reduce Stress
- Drink Plenty of Water
Healthy Eating + Exercise = Diabetes Control
Breakfast:
- 60 grams carbohydrate

Lunch:
- 60 grams carbohydrate

Snack:
- 30 grams carbohydrate

Dinner:
- 60 grams carbohydrate
It hurts now, but one day it’ll be your WARM UP