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Do you know anyone with Diabetes?
What do you already know?

Type 1 Diabetes
What if You had Type 1 Diabetes?
Type 1 Diabetes

What do we need to know?
Diabetes

Type 1 Diabetes Mellitus

Type 2 Diabetes Mellitus

Blood Sugar Levels

Hormone produced by the Pancreas

Metabolism of the body's

Regulator is a key after the

Insulin which produce Beta Cells

Process of Digestion has broken down

Carbohydrates into Sugar Molecules such as Glucose into Proteins

Cells enters the Body

Storied Liver

Blood Stream

Meal

Postprandial levels Rise

stimulates

Energy

Muscles

Glycogen

60 mg to 120 mg

within 10 minutes after

Amino Acids are absorbed into

Peak

immediately after

60 mg to 120 mg

in the range of

Blood Sugar

contain

keep

Pancreas

is a

due to insufficient

is produced by

Hormone

Blood Sugar Levels

can effect

have either

or

have elevated

People diagnosed with

Kidneys
Type 1 Diabetes
Type 1 Diabetes
Type 1 Diabetes
Type 1 Diabetes

[Image: high levels of glucose (hyperglycemia)]
Type 1 Diabetes

1. The stomach changes food into glucose.
2. Glucose enters the bloodstream.
3. The pancreas makes little or no insulin.
4. Little or no insulin enters the bloodstream.
5. Glucose builds up in the bloodstream.
Diabetes

Complications of Chronic Hyperglycemia

- Retinopathy
  - Macular edema
  - Capillary nonperfusion
  - Angiogenesis
  - Hemorrhage
  - Glaucoma

- Nephropathy
  - Damaged glomeruli
  - Hyperfiltration
  - Renal damage

- Peripheral neuropathy
  - Nerve damage
  - Ulceration
  - Necrosis

- Stroke

- Heart disease
  - Atherosclerosis
  - Endothelial dysfunction
  - Hypertension
  - Dyslipidemia
  - Procoagulant state
  - Antifibrinolitic state
  - Vascular inflammation

- Autonomic neuropathy
  - Nerve damage
  - Gastrointestinal dysfunction
  - Genitourinary dysfunction

American Diabetes Association Position Statements. Diabetes Care 2004; 27
Type 1 Diabetes
The Scientific Method

1. Ask a question
2. Do background research
3. Construct a hypothesis
4. Test your hypothesis by doing an experiment
5. Analyze your data and draw a conclusion
6. Report your results (Was your hypothesis correct?)
Your Turn
The following video can be viewed at the end of the guided practice section of this lesson.
An educational video about type 1 diabetes signs, symptoms, and treatment, featuring kids and teens with the disease.
References and Resources

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- Shutterstock™ images. Photos obtained with subscription. (Slide 18)

Websites:
- American Diabetes Association
  Articles and resources on diabetes
  http://www.diabetes.org/diabetes-basics/type-1/?loc=util-header_type1
- Juvenile Diabetes Research Foundation (JDRF) Improving Lives Curing Type 1 Diabetes
  The leading global organization funding type 1 diabetes (T1D) research
  http://jdrf.org/