Type 1 Diabetes

FACT SHEET

LOUISIANA DEPARTMENT OF HEALTH

What is Type 1 Diabetes?

Type 1 diabetes (T1D) is an autoimmune disorder where the body's immune system mistakenly attacks and destroys insulin-producing cells in the pancreas called beta cells. This leads to a lack of insulin, which is essential for the body to use glucose from food for energy. Glucose then builds up in the bloodstream, leading to high blood sugar levels (hyperglycemia). While T1D is considered an autoimmune disease, it is likely caused by multiple factors.

What are the Warning Signs of Type 1 Diabetes?

- Frequent urination
- Excessive thirst
- Unexplained weight loss
- Increased hunger
- Fatigue

What Increases the Risk of Developing Type 1 Diabetes?

- Having a parent, sibling or close relative with Type 1 diabetes
- Inheriting certain genes, especially HLA-DR3 or HLA-DQB1
- Experiencing a viral infection that may trigger an autoimmune response
- Being young, as most diagnosed cases occur in childhood or adolescence
- Being white, as white individuals are at higher risk than other racial or ethnic groups
- Being male, as boys are slightly more likely than girls to develop the disease
- Living in North America or Europe, where rates of Type 1 diabetes are highest
- Consuming certain foods, such as gluten or wheat, which have been linked to a slightly higher risk
- Having obesity

What is Diabetic Ketoacidosis (DKA)?

DKA is a potentially life-threatening complication of diabetes caused by a profound **lack of insulin**.

Without enough insulin, the body cannot use glucose for energy, so it begins to break down fat instead. This process produces ketones, which are acidic byproducts of fat metabolism.

As ketones build up in the blood, they cause a dangerous chemical imbalance known as acidosis. At the same time, blood sugar levels rise, leading to dehydration and disruptions in electrolyte levels. If left untreated, DKA can result in serious illness or death.

What are the Signs of DKA?

- Nausea and vomiting
- Stomach pain
- Fruity-scented breath
- Rapid or deep breathing
- Fatigue and weakness
- Confusion
- Altered mental status, or coma

How do we Test Children for Type 1 Diabetes?

- **Autoantibody test**: A screening blood test that detects specific antibodies indicating the immune system is attacking insulin-producing cells in the pancreas. This test is recommended for children at risk, as it identifies the most common autoantibodies associated with Type 1 diabetes.
- **Fasting glucose test**: A blood test that measures glucose levels after the child has fasted for at least eight hours.
- **Hemoglobin A1c test**: A blood test that reflects average blood sugar levels over the past two to three months.

What Should you do if you Think Your Child has Type 1 Diabetes?

Early detection of type one diabetes is essential. If you suspect your child may have Type 1 diabetes, contact your child's primary care provider immediately.