



## Symptoms, Signs and Prevention of Diabetic Ketoacidosis

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### Description

A potentially fatal diabetes mellitus complication is Diabetic Ketoacidosis (DKA). Vomiting, stomach pain, gasping for air, excessive urination, weakness, confusion, and occasionally loss of consciousness are among the signs and symptoms that may be present. A certain “fruity” odour may start to appear on someone’s breath. Symptoms usually appear quickly. DKA may appear in people who have never had diabetes before as their first noticeable symptom. DKA most frequently affects people with type 1 diabetes, although it can also happen to people with other forms of diabetes in certain situations. Infection, improper insulin administration, stroke, and some drugs, like steroids, can all act as triggers. A lack of insulin causes DKA, which causes the body to resort to burning fatty acids instead, leading to the production of acidic ketone bodies. When high blood sugar, low blood pH, and ketoacids are detected in the blood or urine, DKA is commonly diagnosed. DKA is often treated with intravenous fluids and insulin. Insulin can be administered intravenously or subcutaneously depending on the severity. In most cases, potassium is also required to stop the onset of low blood potassium. Blood sugar and potassium levels should be monitored frequently during treatment. Identification of the DKA’s underlying causes is necessary. Sodium bicarbonate may be administered to critically ill patients with significantly low blood pH however its usage is generally not advised due to its dubious benefits.

### Prevention

By following “sick day rules,” which are precise recommendations to patients on how to care oneself when ill, attacks of DKA can be somewhat prevented in people known to have diabetes. An easily digested meal high in salt and carbohydrates, methods to cure infection, how much extra insulin to take when sugar

levels seem out of control, and suggestions on when to seek medical attention are all included in the instructions. When they are ill, diabetics can check their own ketone levels, if they are elevated, and get medical help.

### Signs and symptoms

An episode of diabetic ketoacidosis often manifests its symptoms over the course of around 24 hours. The most common symptoms are nausea and vomiting, intense thirst, increased urine production, and potentially very painful stomach cramps. The term “Kussmaul breathing” refers to the fast, gasping breathing that occurs in severe DKA. A dangerous abdominal illness, such as acute pancreatitis, appendicitis, or gastrointestinal perforation, may be suspected if the abdomen is extremely painful. A small percentage of persons experience altered blood vomiting that resembles coffee grounds, and this condition usually results from esophageal erosion. Confusion or a sudden decline in alertness, including coma, may occur in severe DKA. Clinical signs of dryness, such as a dry mouth and diminished skin turgor, are frequently visible during a physical examination. A rapid heart-beat and low blood pressure may be seen if the dehydration is severe enough to reduce the amount of blood that is circulated. There is frequently a “ketotic” odour, which is frequently characterised as “fruity” or “like pear drops.” Acetone is what’s causing the odour. An elevated respiratory rate indicates the presence of Kussmaul respiration. Young children with DKA are more likely to develop cerebral edoema, often known as brain swelling, which can result in death. Cerebral edoema can induce headaches, comas, loss of the pupillary light reflex, and other symptoms. About 1 in 100 children with DKA experience it, and adults have it less frequently. About 1 in 100 children with DKA experience it, and adults have it less frequently.