



DIABETIC KETOACIDOSIS

ABOUT THE DISEASE

Diabetic ketoacidosis (DKA) is a life-threatening metabolic disorder caused by unregulated diabetes mellitus.

Please see the [Diabetes Mellitus](#) document for additional information on the general disease.

If diabetes goes undiagnosed or insulin isn't controlled well, the body can't use sugar (glucose) for fuel. It switches to burning fat, which creates ketones—strong acids that make blood too acidic. This is a life-threatening emergency.

DKA symptoms overlap with diabetes but include extras like:

- Severe dehydration
- Extreme tiredness or weakness
- Fast heartbeat
- Slow, deep breathing
- Often: vomiting, diarrhea, or belly pain

OBTAINING A DIAGNOSIS

- **Urine test:** Easiest to detect ketones (they spill into urine).
- **Blood gas:** Checks blood acidity (pH level).
- **Full blood work:** Spots related issues like liver/kidney problems, electrolyte imbalances, or pancreatitis.

TREATMENT

DKA patients require hospitalization with intensive care therapy, 24 hours per day, for 2-4 days. Being left unattended overnight at a veterinary hospital, or attempts to treat at home, are unsuccessful and place the patient at risk.

Intensive fluid therapy is the first cornerstone of therapy but is then coupled with initiation or adjustments in insulin therapy to transition the body back to a glucose metabolism and stop ketone production.

TIPS FOR SUCCESS

- DKA patients need to be hospitalized at a 24-hour intensive care facility.
- Maintain regular recheck appointments of DM patients to ensure ongoing insulin therapy is appropriate.
- Treatment of current illnesses, like kidney/bladder infections, pancreatitis, adrenal/thyroid disease, or liver disease will help improve success of treatment.