

## Diabetic Ketoacidosis (DKA)

NHS.UK DKA Guidance (Jun 2023) | JBDS DKA Guidelines (Mar 2023) | Diabetes UK (Nov 2024)

### ■ 999: DKA Symptoms Present

- Blood ketones above 3 mmol/L plus vomiting, abdominal pain, fruity breath, confusion, or laboured breathing
- Drowsy, confused, or unresponsive at any ketone level
- DKA symptoms in a person with no known diabetes diagnosis, particularly a child or young adult
- Insulin pump failure with DKA symptoms: pump users deteriorate rapidly without insulin delivery
- DKA symptoms in a pregnant person with diabetes, even at mildly elevated glucose
- Do not advise driving. Ask them to bring their medicines.

### ■ URGENT: Same-Day Clinical Assessment

- Blood ketones 1.6 to 3 mmol/L require same-day specialist advice, even if the patient appears clinically well.
- Ketones above 3 mmol/L without clear symptoms: same-day specialist contact
- On SGLT2 inhibitor with any DKA symptoms, regardless of blood glucose level
- Glucose persistently high, not responding to insulin, or vomiting repeatedly
- No ketone test available but DKA symptoms present: refer urgently and do not delay for ketone measurements.

SGLT2 inhibitors (empagliflozin, dapagliflozin, canagliflozin, ertugliflozin) can cause DKA at normal glucose. Never dismiss symptoms based on the glucose reading.

### KETONES: Quick Assessment Framework

<b>K</b>	<b>Ketones checked?</b>	Blood or urine? Blood ketones are preferred; urine ketones lag behind by several hours.
<b>E</b>	<b>Eating and drinking?</b>	Able to keep fluids down? Persistent vomiting causes dehydration and may make insulin administration difficult or unreliable.
<b>T</b>	<b>Thirst and toilet?</b>	Excessive thirst and polyuria suggest high glucose or new-onset diabetes.
<b>O</b>	<b>On SGLT2 inhibitor?</b>	DKA can occur at normal glucose. Act on symptoms, not the glucose reading.
<b>N</b>	<b>Nausea, vomiting, or pain?</b>	Vomiting and abdominal pain are classic DKA symptoms. Abdominal pain may indicate significant metabolic disturbance.
<b>E</b>	<b>Exhausted or confused?</b>	Any drowsiness, confusion, or altered consciousness: call 999 immediately.
<b>S</b>	<b>Send if red flags present</b>	999 if symptoms + ketones above 3 mmol/L. Same-day diabetes team or NHS 111 if ketones 1.6 to 3 mmol/L.

### ✓ SELF-CARE: Ketones 0.6 to 1.5, Feeling Well

- Do NOT stop insulin, even if not eating
- Increase sugar-free fluid intake and retest every 2 hours
- Contact diabetes team for advice on insulin dose adjustment and ongoing sick-day management
- Escalate immediately if vomiting starts or ketones rise above 1.5 mmol/L