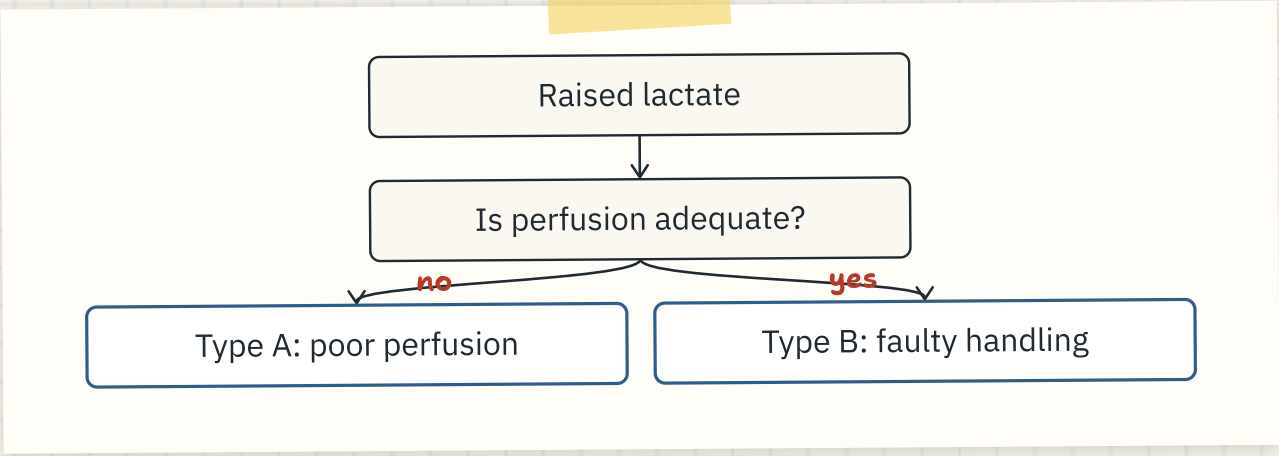
Type A vs type B lactic acidosis

Is perfusion adequate?



Step by step

1. High gap acidosis: lactate is an unmeasured anion
2. Lactate is a balance of production and clearance
3. Ask: is perfusion adequate?
4. Treat the cause

ANION GAP

$$Na^+ - (Cl^- + HCO_3^-)$$

normal about 12; e.g. 138 − (101 + 13) = 24, a high gap

	Type A	Type B
Perfusion	Poor	Adequate
Problem	Tissue short of oxygen	Faulty lactate handling
Causes	Shock, severe lung disease	Liver failure, thiamine deficiency, metformin

Type A vs type B

Rule of thumb

Type A: poor perfusion, oxygen-starved tissue

Type B: adequate perfusion, faulty handling

No thiamine: pyruvate cannot become acetyl CoA, so it becomes lactate

Exam traps

- The same lactate (e.g. 9 mmol/L) can be type A or type B.
- D-lactate is missed by a standard lactate assay.
- Do not reach for bicarbonate by reflex.

Type A vs type B lactic acidosis: split it by mechanism

Video, written lesson, practice question and sources: medservatory.com/usmle-step-1/renal-acid-base/lactic-acidosis-type-a-vs-type-b

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