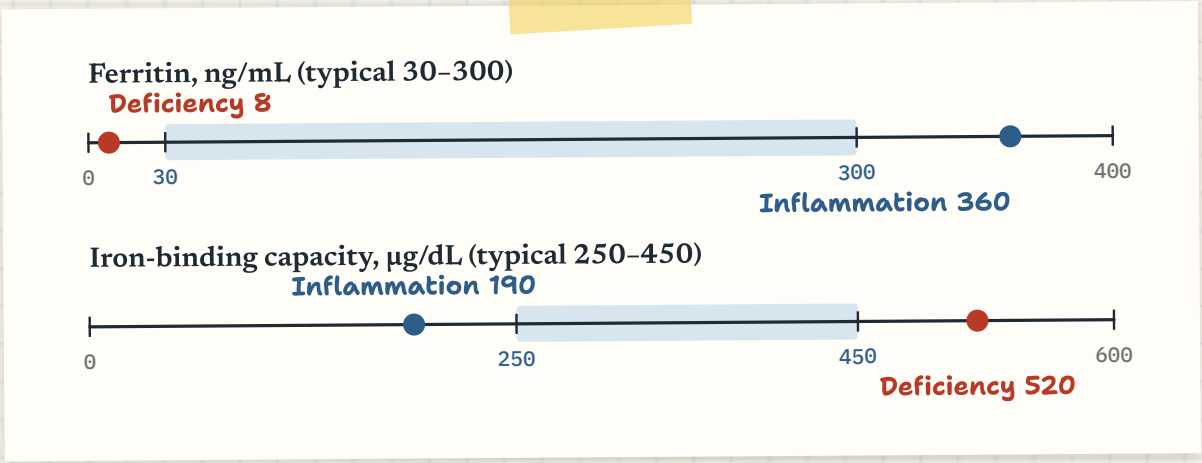
Hepcidin in one page

Anaemia of inflammation vs iron deficiency



Step by step

1. Hepcidin binds ferroportin and degrades it
2. Iron stays trapped in cells; serum iron falls
3. Interleukin-6 raises hepcidin in inflammation
4. Serum iron is low in both: check ferritin and binding capacity

	Inflammation	Iron deficiency
Hepcidin	High	Low
Serum iron	Low	Low
Ferritin	Normal or high	Low
Binding capacity	Low or normal	High
Saturation	Often low	Low

One hormone, two patterns

Rule of thumb

Low iron + high ferritin + low binding capacity = inflammation

Low ferritin + high binding capacity = iron deficiency

Both present: ferritin under about 100 ng/mL still suggests iron deficiency

Exam traps

- Low serum iron does not mean the body is short of iron.
- Ferritin is an acute-phase reactant and rises in inflammation.
- The usual ferritin cut-off of 30 ng/mL does not apply when inflammation is present.
- Cut-offs vary by disease and guideline.

Hepcidin: why iron falls in inflammation

Video, written lesson, practice question and sources: medservatory.com/usmle-step-1/haematology-oncology/iron-deficiency-vs-anaemia-of-inflammation

For exam study only, not medical advice. Follow local guidelines and your lab's ranges.
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