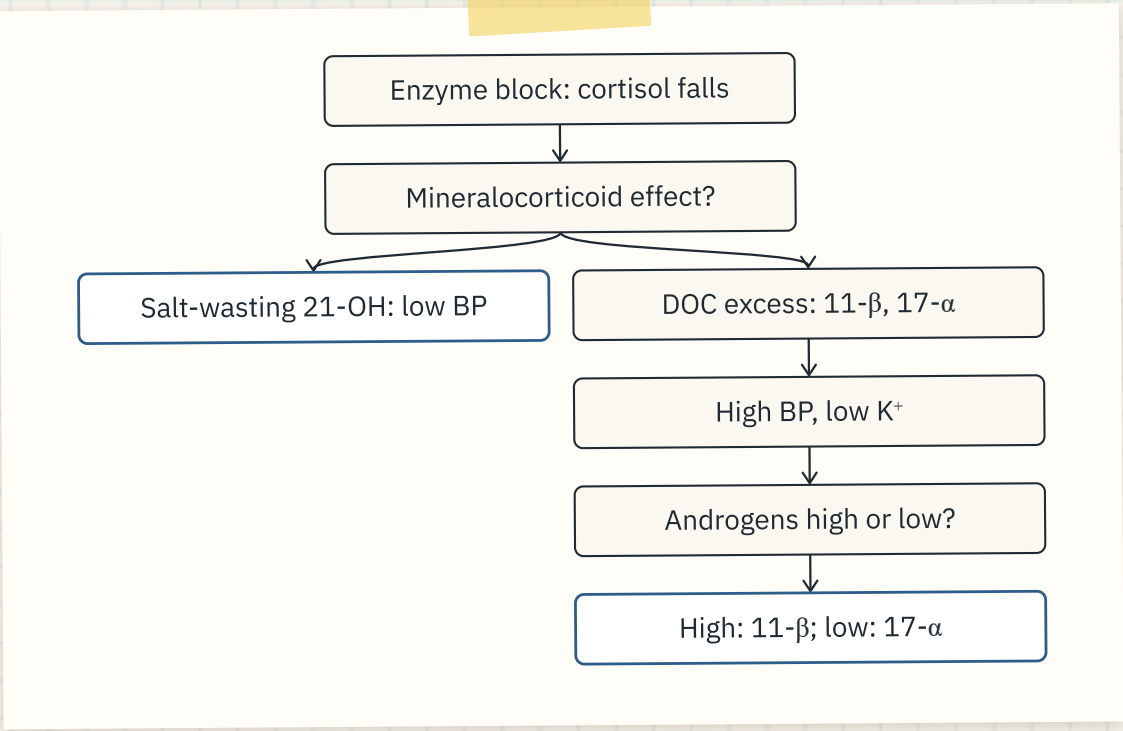
CAH: three enzymes, three patterns

Predict blood pressure, potassium and androgens



Step by step

1. What piles up?
2. What falls?
3. Where does the pile-up spill?

Block	BP	K⁺	Androgens
21-hydroxylase (salt-wasting)	Low	High	High
11-beta-hydroxylase	High	Low	High
17-alpha-hydroxylase	High	Low	Low

Effects of each enzyme block

Pattern to keep

Salt-wasting 21 lowers BP

11 and 17 raise BP

Androgens: high 21 and 11, low 17

Exam traps

- Of the three main forms, only salt-wasting 21-hydroxylase deficiency lowers blood pressure.
- Virilisation with high blood pressure points to 11-beta-hydroxylase deficiency.
- 17-alpha-hydroxylase deficiency has no androgens or oestrogens, and usually no adrenal crisis.

Congenital adrenal hyperplasia: three enzymes, three patterns

Video, written lesson, practice question and sources: medservatory.com/usmle-step-1/endocrinology/congenital-adrenal-hyperplasia

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

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