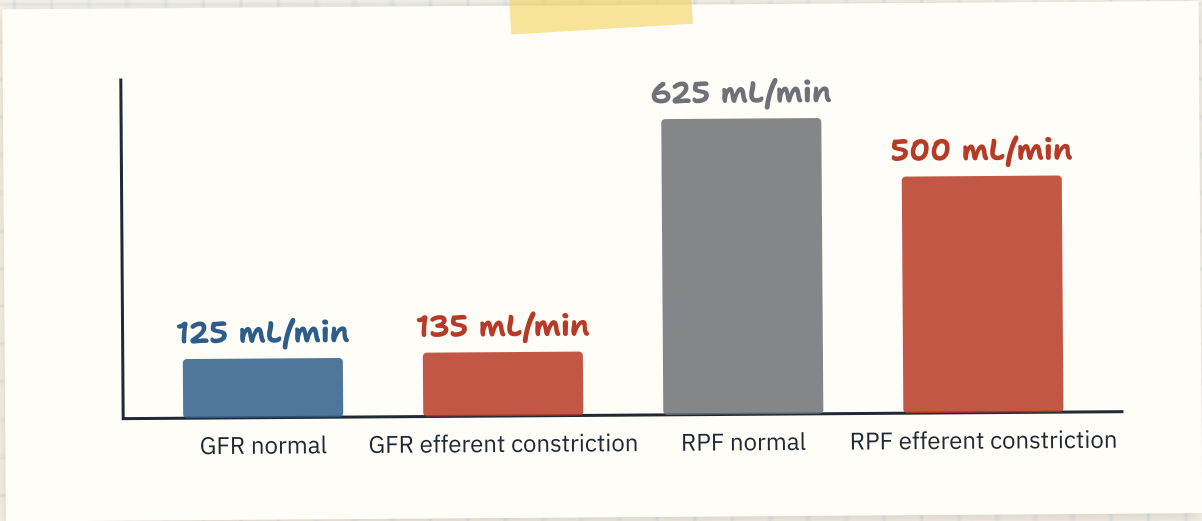
Afferent vs efferent arteriole

GFR, RPF and filtration fraction



Step by step

1. Afferent: GFR and RPF move together
2. Efferent: GFR and RPF move apart
3. Compute FF = GFR / RPF
4. FF unchanged points to the afferent arteriole

FILTRATION FRACTION

$$FF = GFR / RPF$$

normal GFR about 125 mL/min; RPF about 625 mL/min; FF about 0.20

	Constriction	Dilation
Afferent	GFR ↓, RPF ↓, FF same	GFR ↑, RPF ↑, FF same
Efferent	GFR ↑ (↓ if severe), RPF ↓, FF ↑	GFR ↓, RPF ↑, FF ↓

The 2×2 table

Rule of thumb

Afferent together, efferent apart

NSAIDs constrict the afferent arteriole

ACE inhibitors and ARBs dilate the efferent arteriole

Exam traps

- NSAID and ACE inhibitor act on opposite arterioles.
- Severe efferent constriction lowers GFR as well.
- Volume depletion, heart failure and cirrhosis raise the NSAID risk.
- Bilateral or solitary-kidney stenosis makes GFR depend on efferent tone.

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