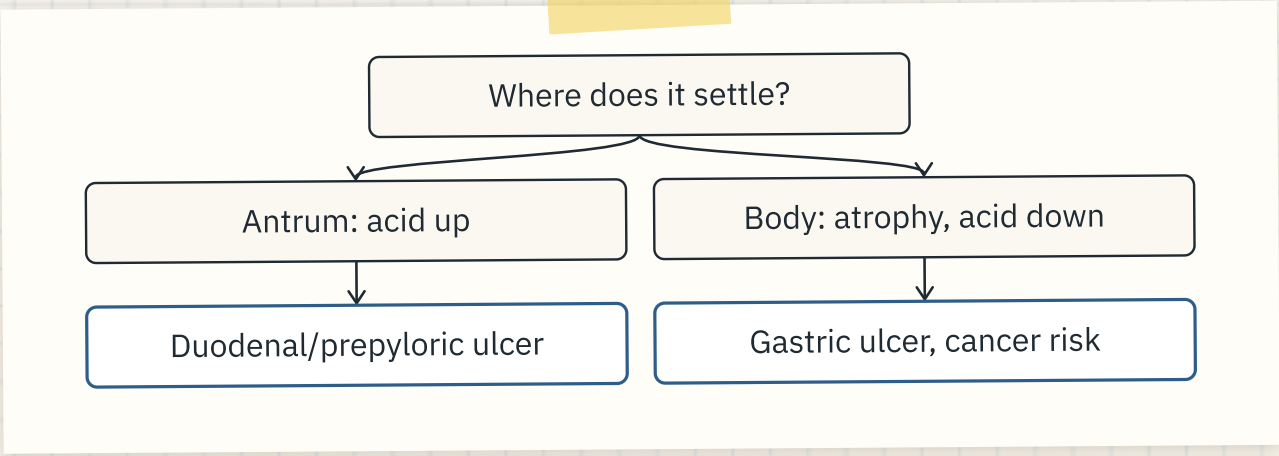
H. pylori and NSAID ulcers

Ulcers appear when defence fails



Step by step

1. Defence versus acid and pepsin: the lining is a balance
2. Defence: mucus, bicarbonate, blood flow, prostaglandins, repair
3. H. pylori and NSAIDs both weaken defence
4. Treat the cause: eradicate H. pylori, stop the NSAID

Site	Acid	Ulcer
Antrum	Up (gastrin up)	Duodenal or prepyloric
Body	Down (atrophy)	Gastric, cancer risk

Where H. pylori settles

Rule of thumb

Antral H. pylori: more acid, duodenal ulcer

Body H. pylori: less acid, gastric ulcer

NSAIDs block COX-1; prostaglandins are the lining's own defence

Exam traps

- H. pylori does not always mean more acid: the site decides.
- Gastric ulcer edges are biopsied; duodenal ulcers are rarely malignant.
- Selective COX-2 inhibitors spare COX-1, so fewer gastric ulcers.

H. pylori and peptic ulcer disease: how mucosal defence fails

Video, written lesson, practice question and sources: medservatory.com/usmle-step-1/gi-physiology-pathology/h-pylori-peptic-ulcer-disease-mucosal-defence

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