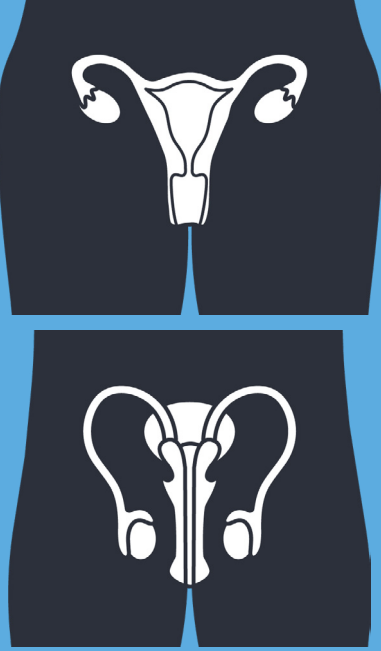
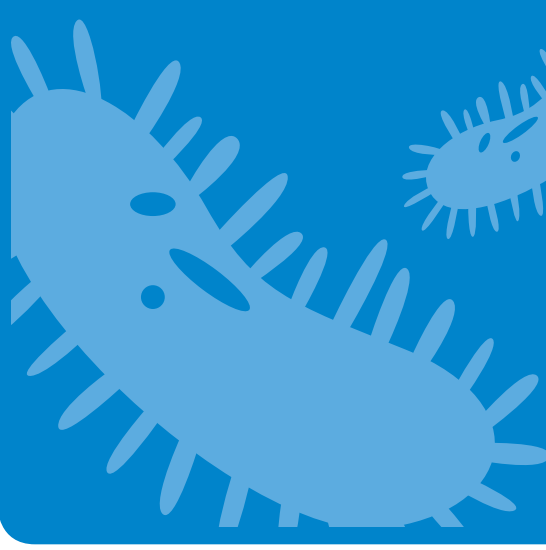
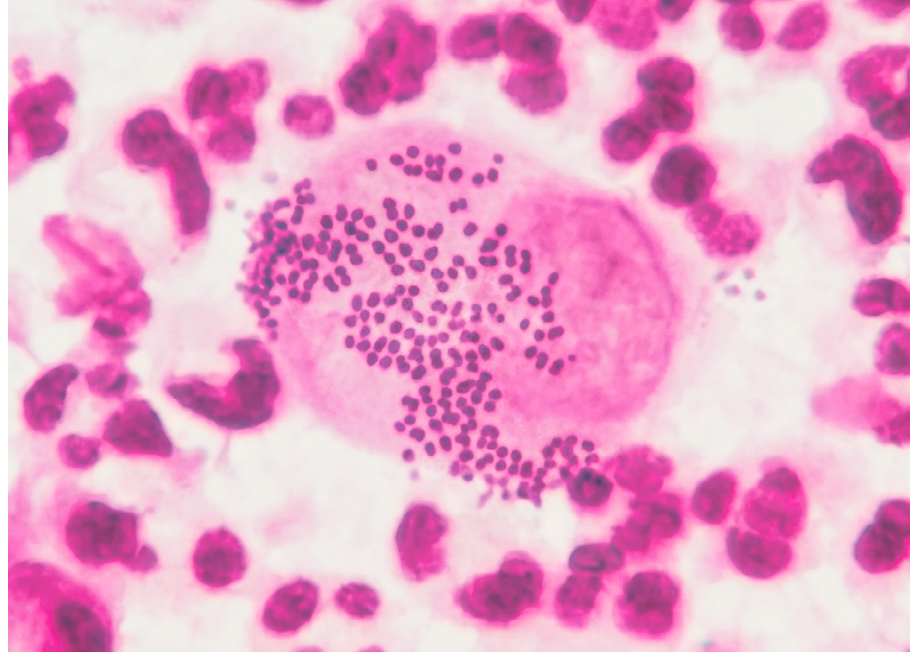


TOPIC: GONORRHEA

	 Gonorrhea	Bacterial GRAM _____ SHAPE: Spherical pairs (diplococci)	
CAUSE	<i>Neisseria gonorrhoeae</i> (<i>N. gonorrhoeae</i>). ◆ Diplococci; may be both _____ cellular and _____ cellular. ◆ Named after the Greek: “<i>gon</i>” = “semen”, “<i>rhea</i>” = “_____”. ▸ Greek physician Galen thought discharge caused by gonorrhea was semen.		
SPREAD	Sexually transmitted; gonococci adhere to epithelial cells via _____. Can infect any simple columnar mucous membranes: e.g., urethra, cervix, rectum, _____, eyes.		
SYMPTOMS	◆ In males: painful discharge of pus from urethra, acute inflammation, dysuria. ◆ In females: often asymptomatic (50-80% of cases). ▸ Possible symptoms: _____, increased vaginal discharge, spotting, itching. _____ cases may lead to pelvic inflammatory disease (PID). ◆ Can be transmitted to babies’ eyes during _____, causing blindness.		
DIAGNOSIS	Based on symptoms alone, gonorrhea is indistinguishable from _____. ◆ In males: identification of gram-negative diplococci in pus-filled discharge. ◆ In females/asymptomatic cases: swab with culture. ◆ Nucleic acid amplification test of _____ (males), urethral or vaginal swabs.		
TREATMENT	Combination of ceftriaxone & azithromycin. Widespread _____ to many different antibiotics.		
IMMUNITY	N/A. Condoms can significantly reduce spread.		

References:

Caldwell. (n.d.). [Photomicrograph of a Gram-stained specimen that demonstrates the presence of Gram-negative diplococci]. Centers for Disease Control and Prevention. <https://phil.cdc.gov/Details.aspx?pid=21366>

PRACTICE

A pregnant female is diagnosed with gonorrhea. Why may this be concerning?

- a) Gonorrhea can cross the placenta and lead to congenital defects in the fetus.
- b) Gonorrhea may be passed to the baby during birth, leading to a gonorrheal infection of the eyes.
- c) Antibiotics cannot be taken during pregnancy, meaning the infection will become established in the uterine tubes before it can be treated.
- d) Pregnancy weakens the immune system, so the gonorrhea infection could be extremely dangerous.

PRACTICE

Which statement accurately reflects the pathogenesis of *N. gonorrhoeae*?

- a) *N. gonorrhoeae* cells use fimbriae to adhere to epithelial cells of the urogenital tract.
- b) *N. gonorrhoeae* cells use flagella to swim up the urethra in males or through the cervix in females.
- c) *N. gonorrhoeae* cells' corkscrew shape allows them to “burrow” into tissues.
- d) *N. gonorrhoeae* cells have spike proteins that mimic host cells, allowing them to evade detection.