

LAB 9 FOR DR. LYLES' STUDENTS

PATHOGENIC BACTERIA

Objectives:

- To become familiar with the characteristics of some pathogenic bacteria.
- To identify these pathogens based on visual inspection of prepared slides.

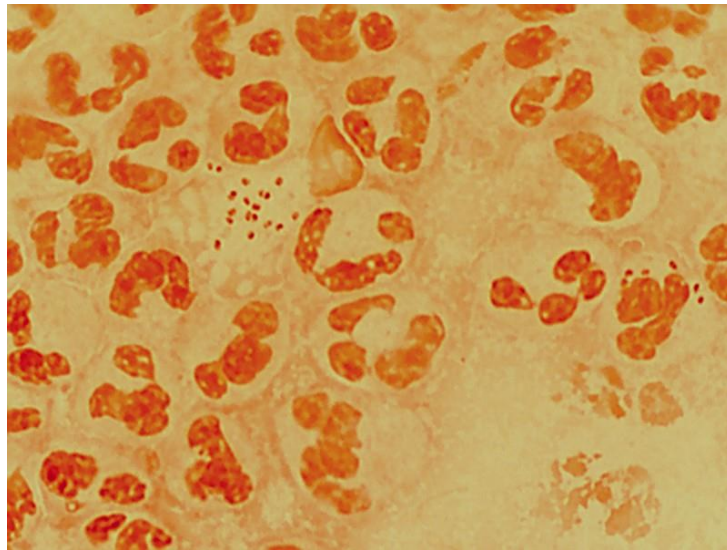
Materials and Methods:

Recall from lecture that bacteria are **prokaryotes**, lacking a nucleus and organelles. Bacteria are also much smaller than protozoa!

Examine the prepared slides of the following pathogenic bacteria. Know how to identify them, how to spell their names, and what disease they cause.

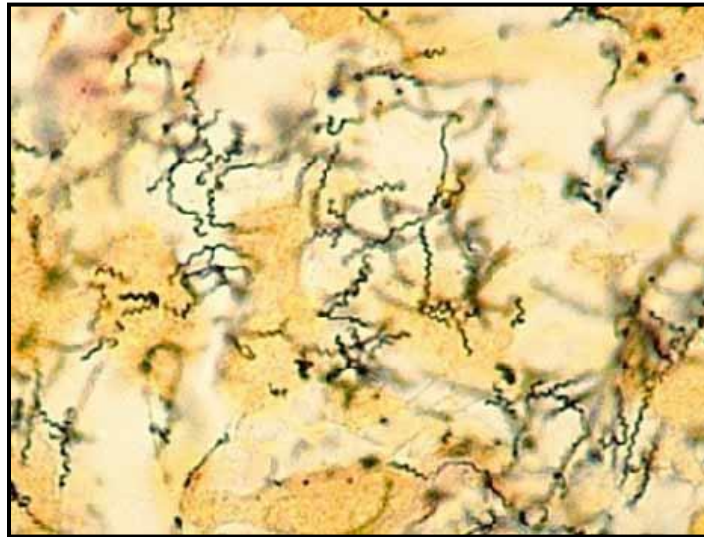
PATHOGENIC BACTERIA:

Neisseria gonorrhoeae



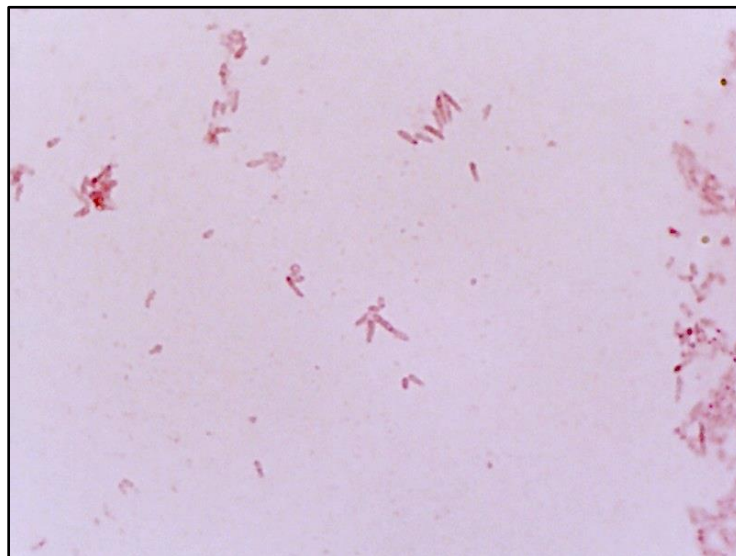
Neisseria gonorrhoeae (small, Gram-negative diplococci) bacteria in a pus smear. These bacteria cause the sexually-transmitted disease **gonorrhea**. The large cells with lobed nuclei are white blood cells.

Treponema pallidum



Treponema pallidum (spiral-shaped) bacteria in a smear. These bacteria cause the sexually-transmitted disease **syphilis**.

Corynebacterium diphtheriae



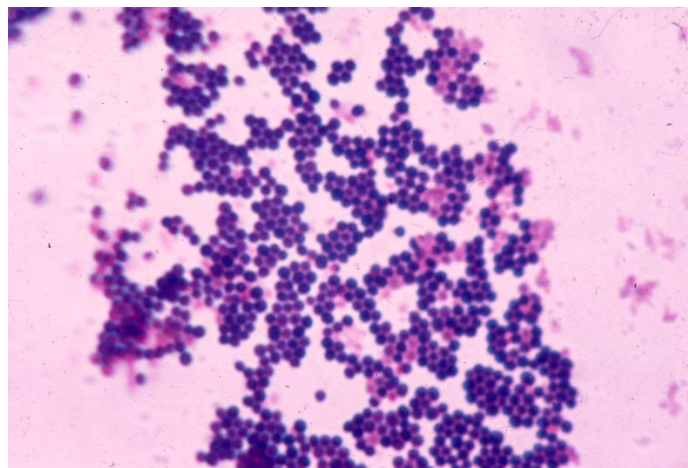
Corynebacterium diphtheriae (Gram-positive bacilli in “Japanese kanji characters”). These bacteria cause the respiratory disease **diphtheria**.

Clostridium



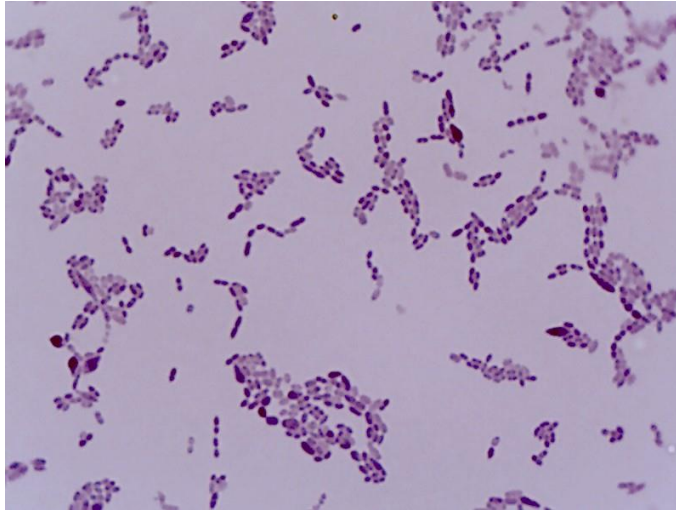
Clostridium (Gram-positive bacilli with endospores) bacteria. These bacteria cause diseases such as **tetanus**, **botulism**, **gas gangrene**, and “**Cdiff**.” The round, hollow structures are endospores.

Staphylococcus aureus



Staphylococcus aureus (small, Gram-positive staphylococci, or cocci in clusters). These bacteria cause diseases such as **MRSA**, **toxic shock syndrome**, and **abscesses**.

Streptococcus



Streptococci (small, Gram-positive streptococci, or cocci in chains). These bacteria cause diseases such as **pneumonia**, “**strep throat**” (**pharyngitis**), and **dental caries**.