

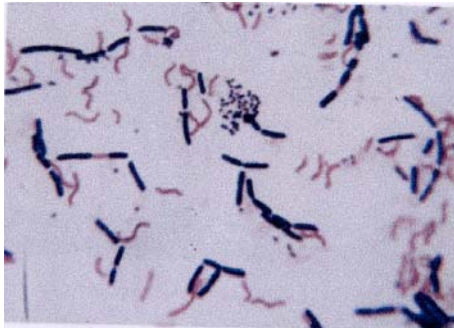
Prokaryotic Cell Structure

The prokaryotic cell has no internal membrane-bounded structures. The circular molecule of DNA of a prokaryote is **not** contained within a nucleus, . The most abundant prokaryotes, the eubacteria, are among the tiniest of living organisms. Without the use of oil immersion magnification they appear as tiny spots under the microscope. (Even with the magnification of the oil immersion lens, they are pretty tiny.)

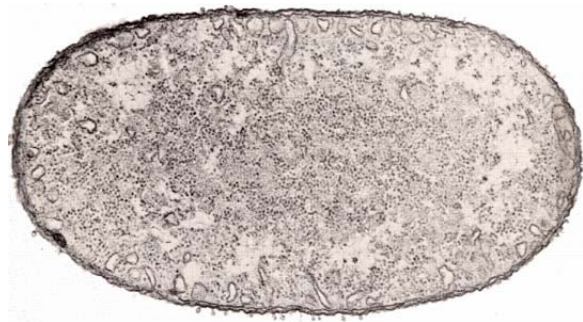
1. Obtain a prepared slide of *Bacillus megatherium* or other bacterium from the side table or lab cart.
2. Focus and center the slide at low power. You should see small specks and “threads” of purple-stained material. Switch to the high power (40X) lens and refocus. The specks should be distinguishable as small purple threads, consisting of linked rod-shaped cells.

How does the appearance of the bacterial cell compare with the eukaryotic cells observed previously? Do you see any organelles? If not, why not?

When you have completed your observations, clean your slide with lens paper and return it to its designated box.



Bacillus bacteria (Compound Microscope)



Electron Micrograph of Bacterium