

Wet Prep

Squameous Epithelial Cells

Clue Cells

White Blood Cells

Trichomonas

Yeast

Red Blood Cells

Sperm

Artifacts

Images used with permission from The College of American Pathologists and the Michigan Department of Community Health (see Additional Resources for Web Link).

Microscopic Examination of Vaginal Discharge

- Normal Saline suspension used to view:
 - Trichomonas
 - Clue Cells
 - WBC
 - Sperm
 - Yeast
- KOH suspension (dissolves biologic materials except for cellulose found in cell walls) useful for visualizing yeast.

Process

1. Add a small amount of vaginal discharge to one drop normal saline or 10% KOH, mix gently.
2. Apply coverslip. If using KOH, allow a few minutes for KOH to digest material.
3. Examine slide using 10x and 40x objective.

Squameous Epithelial Cell

- Large, flat cell with a single, small nucleus.
- Distinct cytoplasmic borders



Clue Cell

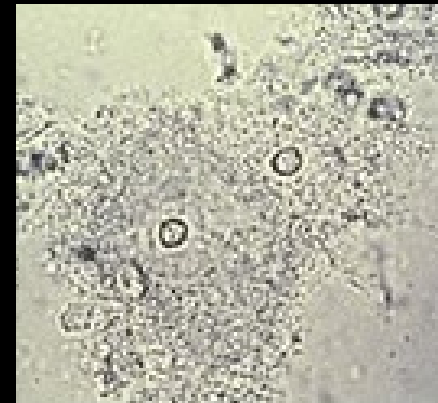
- Squameous epithelial cell with adherent bacteria extending beyond the cytoplasmic borders.
- Lacy, granular appearance
- Indistinct borders



Side-by-Side Squameous Epithelial Cell vs Clue Cell



Squameous epithelial cell
Note distinct borders



Clue cell
Note indistinct borders

White Blood Cell

- Small, round cell
- Multilobed nucleus

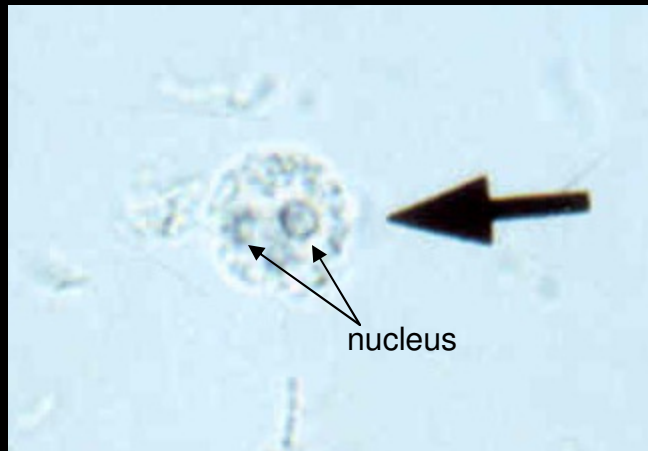


Trichomonas

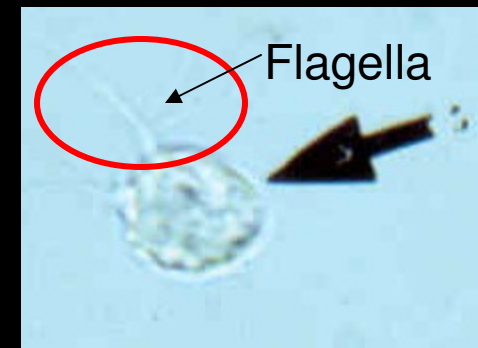
- Pear shaped organism
- Flagella
- Look for “falling leaf” movement under the microscope.



Side-by-Side White Blood Cell vs Trichomonas



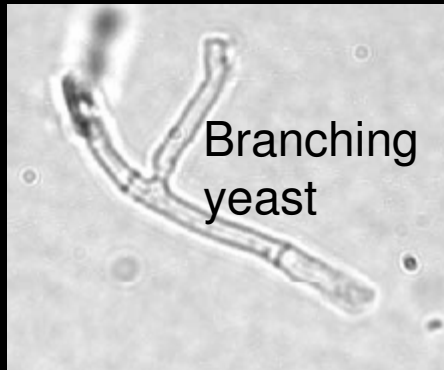
White Blood Cell
Multilobed nucleus present



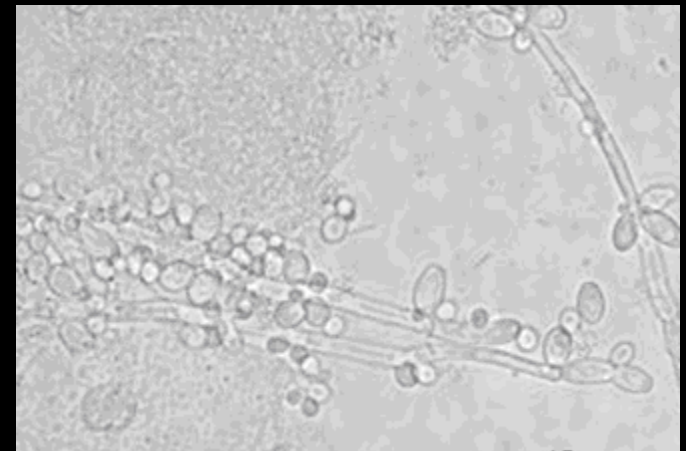
Trichomonas
Flagella present

Yeast

- Oblong cells, may be budding.
- May form pseudohyphae (elongated budding yeast cells that have not detached from each other).
- May exhibit branching.



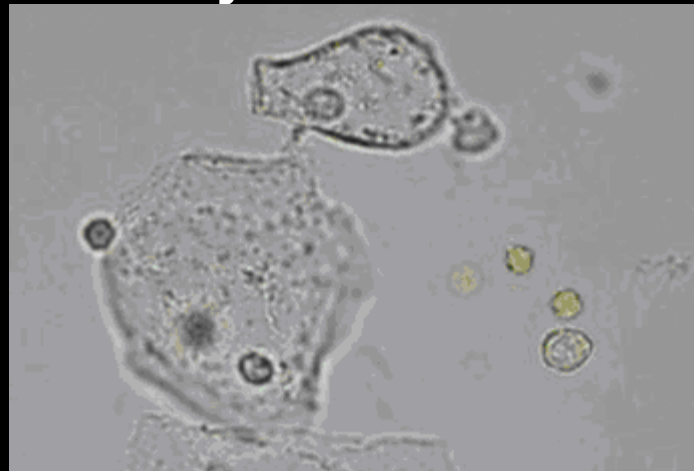
Pictures from CAP



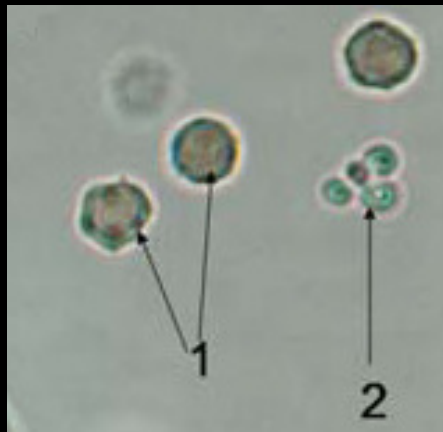
Picture from Michigan Department of Community Health

Red Blood Cell

- Small round cells in fresh samples, crenated in older samples.
- May have a dimple in the middle.
- Smaller than white cells, but larger and more uniform than yeast.



Side-by-Side Yeast vs Red Blood Cell



1. Red Blood Cell
Larger than yeast and more rounded.

2. Yeast
Smaller, less round than rbc.

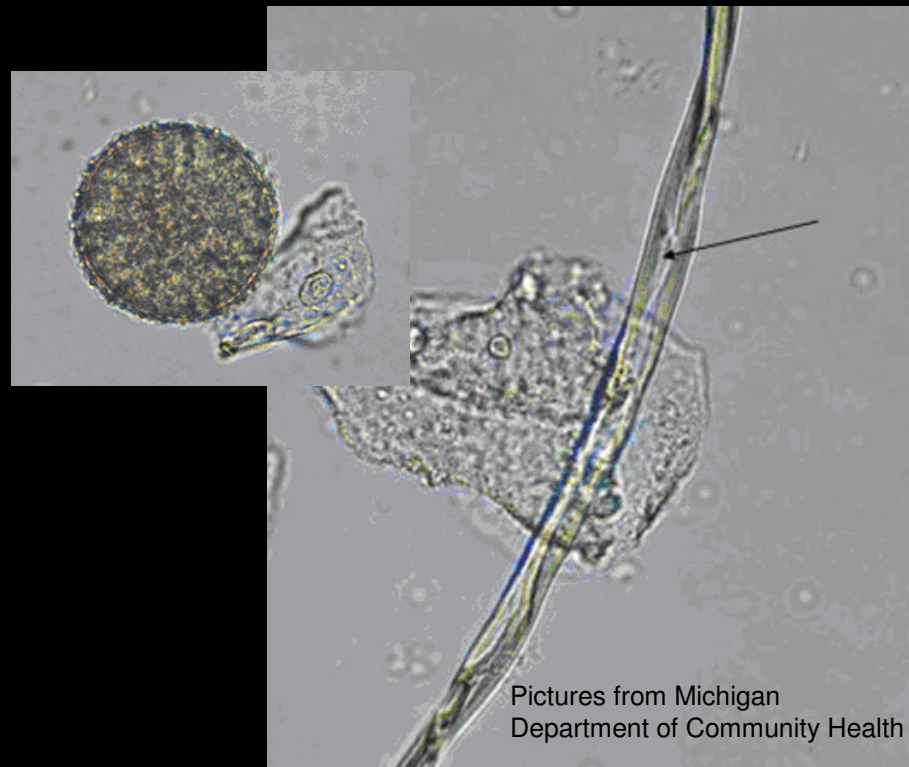
Sperm

- Small oval head with a long, slender tail.
- Head 4-6 μm long, tail 40-60 μm long.



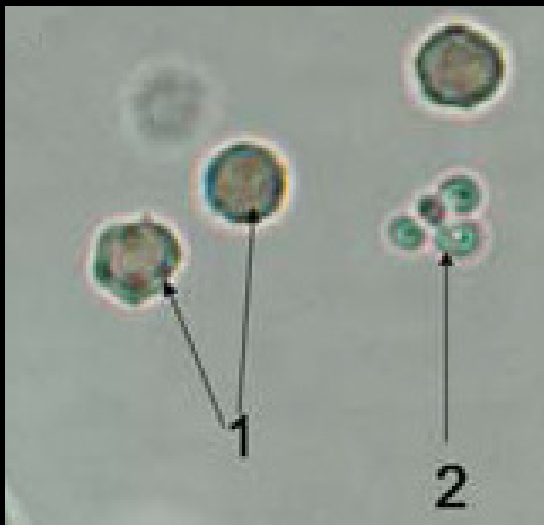
Artifact

- Highly refractile.
- Very smooth edges – looks too perfect to be natural.



Quiz

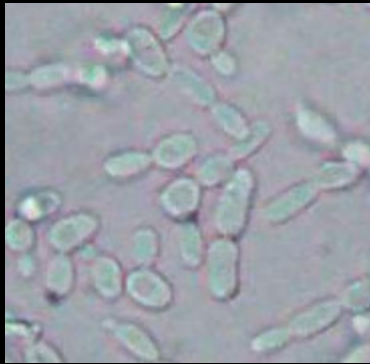
Email answers to gretchen.bruemmer@tricore.org.



1. The structure labeled 1 is _____.
 - a. White blood cell
 - b. Red blood cell
 - c. Yeast

2. The structure labeled 2 is _____.
 - a. White blood cell
 - b. Red blood cell
 - c. Yeast

Quiz



3. This is a picture of _____
- a. Budding yeast
 - b. Red Blood cells
 - c. Artifacts



4. This is a picture of _____
- a. Clue Cell
 - b. Artifact
 - c. Red blood cell

Additional Resources

Copy and paste link into your web browser.

<http://www.womenshealthapta.org/secure/ob101/My%20Documents4/Procedures/Wet%20Mount/Wet%20Mount.htm>

<http://emprocedures.com/obgyn/wetprep/analysis.htm>

http://www.michigan.gov/mdch/0,1607,7-132-2945_5103_7168-74548--,00.html

For questions, contact:
Point of Care Office
TriCore Reference Laboratories
505-724-8096

