

NOTES
TRICHOMONA

MICROBE OVERVIEW

- *Trichomonas vaginalis*: pear-shaped (pyriform), flagellated protozoa; infects genitourinary tract
- Causative agent of trichomoniasis (trich), common sexually transmitted disease (STD)

Morphology
- Size
  - 9 x 7 micrometers
- Motile via four flagella, undulating membrane
- Rigid axostyle runs through cell from anterior to posterior end
- Contains hydrogenosomes (unique energy-producing organelles)

Replication/Multiplication
- Humans only host
  - Does not survive well in external environments
  - Multiplies when vaginal pH basic
  - *Incubation period:* 5–28 days
  - No cyst stage

TRICHOMONAS VAGINALIS

osms.it/trichomonas-vaginalis

PATHOLOGY & CAUSES

- Resides in lower genital tract of individuals who are biologically female; urethra, prostate of individuals who are biologically male → trophozoite stage (infective stage) → transmitted sexually → infects squamous epithelium of lower genital tract → replicates by longitudinal binary fission → inflammatory response

RISK FACTORS
- Sexual activity with infected partner
- Multiple sexual partners
- More common in individuals who are biologically female

COMPLICATIONS
- ↑ risk of contracting HIV due to genital inflammation
- Pregnancy
  - ↑ risk of premature rupture of membranes, preterm delivery, low birth weight
- Urethritis, cystitis

SIGNS & SYMPTOMS
- May be asymptomatic
- Individuals who are biologically female
  - Watery, foul-smelling vaginal discharge; burning; pruritus; dysuria, urinary frequency; lower abdominal pain; dyspareunia; vulvar, vaginal erythema
- Individuals who are biologically male
  - Urethral discharge; pruritus; burning after urination/ ejaculation

DIAGNOSIS

LAB RESULTS

Microbe identification

- Saline microscopy (wet mount of genital secretions)
  - Characteristic organism
  - ↑ polymorphonuclear leukocytes
- ↑ vaginal pH (> 4.5)
- *T. vaginalis* assay
  - Detects species-specific ribonucleic acid (RNA); vaginal swab/urine specimen
- Nucleic acid amplification testing (NAAT)
- *Trichomonas* rapid test

OTHER DIAGNOSTICS

- Speculum exam
  - Punctate hemorrhages cervix (strawberry cervix)

TREATMENT

MEDICATIONS

- Systemic 5-nitroimidazole drugs (e.g. metronidazole, tinidazole)
  - Treat both partners

OTHER INTERVENTIONS

- Rate of transmission decreased with consistent use of condoms, spermicidal agents (e.g. nonoxynol-9)