



*Mycoplasma hominis* mimics a “fried-egg” morphology (see below) on [A8 Agar](#) under microscopic examination.



*M. hominis* has been isolated from the upper urinary tract in patients with acute pyelonephritis, a kidney infection that causes pain and inflammation. *M. hominis* infection during pregnancy has been described in the literature as a cause of ectopic pregnancy, pre-mature delivery, miscarriage, and can induce fever among newborns.

*Ureaplasma urealyticum* causes non-chlamydial, non-gonococcal urethritis (NGU). In newborns, *U. urealyticum* infection during pregnancy can cause low birth weight, pneumonia, and septicemia.

These microorganisms are typically transmitted via sexual contact or vertical transmission (mother to child) and may go unnoticed depending upon the patient's immune system. Although *M. hominis* and *U. urealyticum* can be present in the commensal flora of many humans, when they exceed concentrations of  $10^4$  and  $10^3$  CFU/mL, respectively, these bacteria can often lead to urogenital tract infections.

While their true clinical importance is upon to debate, these bacteria may not present immediate symptoms in

many humans. However, their unmonitored proliferation can result in pathogenesis. It is quite common for patients suffering from STI or UTI-related symptoms that a *Mycoplasma* test is often the last test ordered, after all other pathogens have been exhausted and all laboratory results found negative.

The cell wall disrupting beta-lactams (including penicillins and cephalosporins) are ineffective against these organisms because they lack a cell wall. Therefore, doxycycline, macrolides (e.g. azithromycin), and fluoroquinolones are often used to treat these infections.



Fortunately, there is a device that can detect, identify, and enumerate *Mycoplasma hominis* and *Ureaplasma urealyticum* from endocervical, urethral, urinary, gastric and semen specimens in as little as 24 hours. This device is called [Mycofast US](#) by ELITech and is now available exclusively in the U.S. from Hardy Diagnostics. This “all liquid,” rapid colorimetric test relies on innate properties of *M. hominis* and *U. urealyticum* for detection, identification, and patented techniques for enumeration.

The color pattern of wells in the device is used to interpret the results of the test. A positive result indicates *Mycoplasma hominis* and/or *Ureaplasma urealyticum* are present in the specimen, either as

colonization or infection. However, the positive test alone should be used in conjunction with culture results and clinical presentation.

[Mycofast US](#) is a significant improvement over traditional *Mycoplasma* culture and PCR methods because of two features: 1) **Time** – Results can be achieved in as little as 24 hours, 48 hours for strains with weaker enzymatic activity, which is considerably quicker than the weeks required for typical cultivation and 2) **Money** – The test is less expensive than PCR-based detection methods.

For more information on the [Mycofast US](#) test (cat. no. 00050), see the Hardy Diagnostics website.

#### Citations:

- <https://basicmedicalkey.com/12-mycoplasma/>
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