

## Gonorrhea

Gonorrhea is a bacterial infection caused by *Neisseria gonorrhoeae*, and is commonly spread through sexual activity. The gram-negative bacteria has a short incubation period and a high risk of infectivity. Symptoms of gonorrhea include dysuria, yellow-greenish discharge (urethral in men and cervical in women), and frequent urination. Although the infection occurs more frequently in women, they are often asymptomatic. Treatment consists of ceftriaxone. Coinfection with chlamydia is common, and if not ruled out, treatment with doxycycline is indicated. Azithromycin may be substituted in pregnant patients. Informing the patient's sexual partners is critical in order to start their own treatment and prevent further spread of the infection.



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### Mechanism

#### **Neisseria gonorrhoeae**

##### [Knives Gunner-ship](#)

Gonorrhea is caused by the gram-negative diplococcus *Neisseria gonorrhoeae*. The infection is spread via direct physical contact with an infected individual. Since mucosal tissues in the genitalia are especially susceptible to gonorrhea, the infection is most commonly spread through sexual activity. A Gram stain may be used to rapidly detect gonorrhea. Patients who have been infected in the past are still susceptible to this disease.<br>

### Assessment

#### **Dysuria**

##### [Urine-in-flames](#)

Since the initial site of infection is commonly the urethra in men (cervix in women), the patient infected with gonorrhea may experience painful urination. Dysuria is a common symptom of urethritis related to the gonorrheal infection. This is the reason why men usually seek treatment, as the symptoms of dysuria and profuse purulent discharge are alarming to them and why they are less likely to experience complications, i.e., sterility, strictures.<br>

#### **Yellowish-Green Discharge**

##### [Yellow-and-Green Discharge](#)

Yellowish-green purulent discharge may develop 2-5 days after the initial infection. Since gonorrhea typically affects the male urethra, the infection causes profuse urethral discharge and in women cervical and vaginal discharge. Women with yellowish-green exudate may develop abscesses.<br>

#### **Increased Urinary Frequency**

##### [Up-arrow Urine Frequency-wave](#)

Gonorrheal infection may remain local or spread to nearby tissue. If the infection spreads to the urethra, the patient may experience increased urinary frequency and urgency.<br>

#### **Women Often Asymptomatic**

##### [Woman with Thumbs-up](#)

Many women who contract gonorrhea are asymptomatic. A small percentage of infected women may complain of vaginal discharge, dysuria, or increased urinary frequency. Although often overlooked, changes in menstruation patterns may also occur. Since gonococcal infection creates an inflammatory response and leads to fibrous tissue scarring and adhesions, immediate treatment in women is critical to prevent complications such as chronic pelvic pain and infertility.<br>

### Interventions

#### **Ceftriaxone (IM)**

##### [Chef-tri-axes](#)

During the early stages of gonorrhea, cephalosporin antibiotics are used to treat the infection. Ceftriaxone (Rocephin) delivered intramuscularly is administered to treat gonorrhea and is the preferred initial treatment.<br>

## Chlamydia

### Doxycycline

#### [Dachshund-cycling](#)

Co infection with *C. Trachomatis* is common. In patients who have not had *C. Trachomatis* infection ruled out, doxycycline can be administered as presumptive treatment alongside ceftriaxone. Since a common side effect of doxycycline is photosensitivity, instruct the patient to avoid unnecessary sunlight exposure. To prevent issues with absorption, instruct the patient to avoid taking the medication with antacids, iron products, and dairy products.<br>

### Azithromycin

#### [Zipper-mice](#)

If chlamydial infection has not been excluded, treatment is warranted since co-infection is common. A single dose of Azithromycin is indicated for pregnant patients.<br>

## Considerations

### Treat Partners

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For the purpose of surveillance, cases of gonorrhea must be reported to local or state public health departments. Since the patient's sexual partners may have contracted the infection, notifying them is critical in order to initiate treatment and prevent complications.<br>