

Enterococci

Enterococci are gram positive cocci that were previously classified as Group D Streptococcus due to Lancefield group D classification. Lancefield identification is based on differences in the C carbohydrate on the cell wall of the bacteria. Enterococcus faecalis and Enterococcus faecium are two species found in the intestines of humans. Enterococcus are difficult to distinguish from Streptococci but can be differentiated because Enterococci are tolerant of extreme environmental conditions including extreme temperature, wide range of pH and high sodium chloride concentration and growth on bile. Important clinical infections caused by Enterococcus species include urinary tract infections and subacute endocarditis. An important feature of this genus is a high level of antibiotic resistance. Many Enterococci are intrinsically resistant to beta lactam antibiotics and resistance to vancomycin (VRE) has been increasing in the last few decades.



PLAY PICMONIC

Characteristics

Gram-Positive Cocci

[Graham-cracker Positive-angel with Cock-eyes](#)

This organism stains positive on gram stain due to thick peptidoglycan layer which absorbs crystal violet and has a spherical shape.

Catalase Negative

[Negative-cat](#)

Characteristically, Enterococcus is catalase negative, which is helpful in distinguishing Enterococcus from catalase positive species like Staph.

6.5% NaCl

[Salt shaker](#)

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Grows in Bile

[Bile-Nile](#)

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Normal Colonic Flora

[Colon Flowers](#)

Enterococcus faecalis and Enterococcus faecium are two species that are part of the normal colonic flora.

Signs and Symptoms

Urinary Tract Infection

[Urinary-tract-on-fire](#)

A urinary tract infection commonly presents with symptoms of burning sensation during urination, and increased frequency and urgency with sharp razor pains in the lower abdomen. Enterococci can cause UTIs.

Subacute Endocarditis

Sub Donut-heart-card

Endocarditis is characterized by inflammation of the inner tissues of the heart such as a valve. Enterococci can cause subacute bacterial endocarditis when a high number of bacteria enter the bloodstream, commonly after a severe Enterococcal urinary tract infection.

Penicillin Resistant

Tied-up Pencil-villain

An important feature of this genus is a high level of antibiotic resistance. Many Enterococci are intrinsically resistant to beta lactam antibiotics and are penicillin resistant.

VRE (Vancomycin Resistant Enterococci)

Van-tank-mice Tied-up

An important feature of this genus is a high level of antibiotic resistance. Many Enterococci are intrinsically resistant to beta lactam antibiotics and resistance to vancomycin (VRE) has been increasing in the last few decades.