

## 4th Generation Cephalosporin

Cephalosporins are beta-lactam antibiotics that are derived from Acremonium fungus. Like other beta-lactams, these antibiotics work by inhibiting bacterial cell wall synthesis. However, they are not as susceptible to penicillinases. There are traditionally five generations of cephalosporins classified based on their antimicrobial characteristics. Each new generation provides a more extended spectrum and has greater gram negative bactericidal properties than the previous generation. Fourth generation cephalosporins such as cefepime are especially known for their broad spectrum of activity and further increased activity against gram-negative organisms resistant to other beta-lactams compared to the older generations. They are also used against pseudomonas aeruginosa infections.



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### Drug Name

#### Cefepime

[Chef-peas](#)

This fourth generation cephalosporin antibiotic (trade name Maxipime) is used for moderate-severe hospital acquired infections by multi-resistant bacteria such as pseudomonas and can cover resistant strep pneumonia as well as enterobacteriaceae.

### Indications

#### Increased Activity Against Gram-Positive Infections and Pseudomonas

[Graham-cracker](#) [Positive-angel](#) and [Sumo-Mona](#)

4th generation cephalosporins are better than other cephalosporins because they have increased activity against pseudomonas and gram positives such as staphylococcus aureus. Along with this, they still maintain their gram-negative coverage.