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# Cephalexin

National Cancer Institute

## Source

National Cancer Institute. *Cephalexin*. NCI Thesaurus. Code C356.

A beta-lactam, first-generation cephalosporin antibiotic with bactericidal activity. Cephalexin binds to and inactivates penicillin-binding proteins (PBP) located on the inner membrane of the bacterial cell wall. Inactivation of PBPs interferes with the cross-linking of peptidoglycan chains necessary for bacterial cell wall strength and rigidity. This results in the weakening of the bacterial cell wall and causes cell lysis. Compared to second and third generation cephalosporins, cephalexin is more active against gram-positive and less active against gram-negative organisms.