



# PENICILLIN

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Its trade name is bicillin C-R •  
It is one of the natural penicillin •

## *Mechanism of action*

Inhibit bacterial cell wall synthesis by •  
binding to one or more of the penicillin  
binding proteins (PBPS); which in turn  
inhibits final transpeptidation step in of  
peptidoglycan synthesis in bacterial cell  
wall , thus inhibit cell wall biosynthesis .

## *Contraindication and caution*

Hypersensitivity to penicillin or any component •

We should use it with caution in patient with impaired renal function , impaired cardiac function or seizer disorder •

# Drug Interaction

- Aminoglycosides: may be synergistic against selected organism •
- Oral contraceptive: the effect may be reduced •
- Probenecid , disulfiram: may increase penicillin level •
- Tetracycline :may decrease penicillin effectiveness •
- Warfarin:increase the effect of it •

## *Side effect*

Convulsions •

Hemolytic anemia •

Positive coombs reaction •

Acute interstitial nephritis •

## *pharmacokinetic*

It can cross placenta, appears in breast milk and can penetrate BBB •

It will metabolite in the liver (30%)to penicilloic acid •

Child and adult half life is 20-50 min and end-stage renal disease ;3.3-5.1hours •

## Dosage

It is available as potassium , benzathine •  
and procaine salt .

As potassium salt are

- less than 30 lb; 600000 units in single dose
- 30-60 lb ;900000 units to 1.2 million units  
in single dose
- more than 60 lb: 2.4 million units in single  
dose





Thank you •