

# Moxin®

Amoxicillin

## Description

**Moxin®** (Amoxicillin) is semi-synthetic penicillin, which is used to treat a wide range of infections caused by susceptible organisms. **Moxin®** (Amoxicillin) is a broad-spectrum antibiotic effective against a wide range of Gram-positive and Gram-negative pathogens.

## Mode of action

**Moxin®** (Amoxicillin) works by inhibiting bacterial cell wall synthesis. The final stage of peptidoglycan synthesis in the bacterial cell wall is a cross-linking reaction carried out by transpeptidase enzyme. Moxin inhibits this enzyme. As a result the cell wall of the bacterium is weakened, the cell swells and is ruptured.

## Pharmacokinetics

Amoxicillin is an acid stable penicillin. 90% of 500 mg oral dose is absorbed and peak serum level of 10 mg/L is attained 1-2 hour after dosing. Food has no significant influence on the absorption of amoxicillin. Increasing the dose increases the amount of amoxicillin absorption. The half-life of amoxicillin in healthy volunteers is around 60 minutes. But renal failure increases it to around 7 h with creatinine clearance <13 mL/min. Detectable amounts of amoxicillin may persist for up to 8 h after a single oral dose. The volume of distribution is 0.3 L/kg body weight and plasma protein binding is around 20%. Elimination of amoxicillin occurs via the kidneys by glomerular filtration and tubular secretion. A small amount (10-20%) of the drug is metabolized by hydrolysis of the beta-lactam ring to penicilloic acid, which is excreted in the urine.

## Composition

**Moxin® 250 mg Tablet:** Each Film coated tablet contains Amoxicillin Trihydrate BP 286.95 mg equivalent to Amoxicillin 250 mg.

**Moxin® 875 mg Tablet:** Each Film coated tablet contains Amoxicillin Trihydrate BP 1004.33 mg equivalent to Amoxicillin 875 mg.

**Moxin® 500 mg Capsule:** Each capsule contains Amoxicillin Trihydrate BP 573.90 mg equivalent to Amoxicillin 500 mg.

**Moxin® 100 ml Powder For Suspension:** Each 5 ml contains Amoxicillin Trihydrate BP 143.5 mg equivalent to Amoxicillin 125 mg.

**Moxin® DS Powder for Suspension:** Each 5 ml contains Amoxicillin Trihydrate BP 286.95 mg equivalent to Amoxicillin 250 mg.

**Moxin® 15 ml Pediatric Drops:** Each 1.25 ml contains Amoxicillin Trihydrate BP 143.475 mg equivalent to Amoxicillin 125 mg.

**Moxin® 250 mg Injection:** Each Vial Contains Amoxicillin Sodium BP 265.05 mg equivalent to Amoxicillin 250 mg.

**Moxin® 500 mg Injection:** Each Vial Contains Sterile Amoxicillin Sodium BP 530.10 mg equivalent to Amoxicillin 500 mg.

## Indications:

- Respiratory tract infections: Otitis media, sinusitis, tonsillitis, pharyngitis, laryngitis, pneumonia, acute and chronic bronchitis, lung abscess, emphysema, bronchiectasis.
- Gastrointestinal tract infections: Typhoid and paratyphoid.
- Urinary tract infections: Pyelonephritis, Cystitis and urethritis.
- Severe systemic infections: Septicemia, septic abortion, endocarditis, intra-abdominal sepsis, puerperal sepsis, osteomyelitis and meningitis.
- Skin and soft tissue infections: Cellulitis, infected wounds, carbuncles, furunculosis and abscesses.
- Venereal disease: Gonorrhea

## Dosage and administration

*By mouth:* 250 mg every 8 hours, double in severe infection; Child up to 10 years, 125 mg every 8 hours, double in severe infections. Severe or recurrent purulent respiratory infection, 3 gm every 12

hours. *Short-course of therapy:* Dental abscess, 3 gm repeated after 8 hours. Urinary-tract infections, 3 gm repeated after 10-12 hours. Otitis media, Child 3-10 years, 750 mg twice daily for 2 days. *By intramuscular injection,* 500 mg every 8 hours; Child, 50-100 mg/kg daily in divided doses. *By intravenous injection or infusion,* 500 mg every 8 hours increased to 1 gm every 6 hours; Child, 50-100 mg/kg daily in divided doses. Meningitis (in combination with other antibiotic if necessary), by intravenous infusion, 2 gm every 4 hours for at least 5 days in meningococcal disease or 10-14 days in listerial meningitis. Enterococcal endocarditis (in combination with other antibiotic if necessary), by intravenous infusion, 2 gm every 4 hours.

## Side-effects

Nausea, vomiting, diarrhoea, upper abdominal discomfort may occur with the therapy. As with all penicillins severe allergic reaction may occur on very rare occasions.

## Use in pregnancy and lactation

USFDA pregnancy category B. Amoxicillin can be used safely throughout pregnancy at the normal adult dose. It can be used safely during lactation in most instances.

## Precautions

Caution should be taken for the following cases- history of allergy, renal impairment, erythematous rashes common in glandular fever and chronic lymphatic leukaemia.

## Drug interactions

**Warfarin:** When amoxicillin and warfarin are taken concomitantly, the INR can be altered. **Oral contraceptives:** The simultaneous use of amoxicillin and an oral contraceptive might be expected to cause breakthrough bleeding or pregnancy. **Food:** Food does not have effect on reducing the uptake of amoxicillin. **Probencid:** Administration of probencid prior to dosing result in a marked increase in the mean serum concentration of Amoxicillin.

## Overdosage

In case of overdosage, medication is discontinued, treatment should be symptomatic and supportive measures are instituted as required.

## Storage

Store in a cool and dry place, protected from light. Keep out of reach of children.

## Packaging

**Moxin® 250 mg Tablet:** Each carton contains 10X10 tablets in blister strips.

**Moxin® 875 mg Tablet:** Each carton contains 10X2 tablets in blister strips.

**Moxin® 500 mg capsule:** Each carton contains 10X5 capsules in blister strips.

**Moxin® 100 ml powder for suspension:** Each carton contains a bottle of dry powder to reconstitute 100 ml suspension and a dosage spoon.

**Moxin® DS powder for suspension:** Each carton contains a bottle of dry powder to reconstitute 100 ml suspension and a dosage spoon.

**Moxin® 15 ml paediatric drops:** Each carton contains a bottle of dry power to reconstitute 15 ml paediatric drops with a dosage spoon and a measuring dropper.

**Moxin® 250 mg Injection:** Each carton contains 4 vials with water for injection in blister pack.

**Moxin® 500 mg Injection:** Each carton contains 4 vials with water for injection in blister pack.



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