

Amoxycillin is a widely used penicillin-type antibiotic effective against a broad range of bacterial infections. It's available in multiple forms and is often a first-line treatment due to its safety and efficacy.

🧪 Chemical Composition

- **Active Ingredient:** *Amoxycillin trihydrate*
- **Molecular Formula:** C₁₆H₁₉N₃O₅S
- **Drug Class:** Aminopenicillins (a subclass of β-lactam antibiotics)
- **Formulations:**
 - Capsules: 250 mg, 500 mg
 - Tablets: 500 mg, 875 mg
 - Oral suspension: 125 mg/5 mL, 250 mg/5 mL, 400 mg/5 mL
 - Injection: Available for IV/IM use

💊 Dosage & Administration

- **Route:** Oral or intravenous
- **Typical Adult Dosage:**
 - Mild to moderate infections: 250–500 mg every 8 hours
 - Severe infections: 875 mg every 12 hours or 500 mg every 8 hours
- **Pediatric Dosage:** Based on weight; commonly 20–40 mg/kg/day divided into 2–3 doses
- **Special Uses:**
 - Combined with *clavulanic acid* to overcome resistance (e.g., Augmentin)
 - Used with *clarithromycin* and *omeprazole* for *H. pylori* eradication

🩺 Medical Uses

- **Common Indications:**
 - Respiratory tract infections (bronchitis, pneumonia)
 - Ear, nose, and throat infections (sinusitis, otitis media, tonsillitis)
 - Urinary tract infections
 - Skin and soft tissue infections
 - Dental abscesses
 - *Helicobacter pylori*-related gastric ulcers (in combination therapy)
- **Mechanism of Action:**
 - Inhibits bacterial cell wall synthesis, leading to cell lysis and death

⚠ Side Effects

Common:

- Nausea and vomiting
- Diarrhea
- Skin rash
- Headache

****Serious:****

- Allergic reactions (anaphylaxis, angioedema)
- Clostridium difficile-associated diarrhea
- Liver enzyme elevation
- Seizures (rare, in high doses or renal impairment)

☰ Risks & Precautions

- **Contraindications:**
 - Known allergy to penicillins or cephalosporins
- **Pregnancy & Breastfeeding:**
 - Generally considered safe; category B drug
- **Drug Interactions:**
 - May reduce efficacy of oral contraceptives
 - Can interact with methotrexate, warfarin, and allopurinol
- **Renal Impairment:**
 - Dose adjustment may be necessary

☲ Patient Feedback & Complaints

****Positive Feedback:****

- Effective for common infections
- Well tolerated by most patients
- Quick symptom relief

****Common Complaints:****

- Gastrointestinal upset
- Allergic skin reactions
- Yeast infections due to altered flora
- Resistance concerns with overuse

📊 Summary Table

Category	Details
Drug Name	Amoxycillin
Active Ingredient	Amoxycillin trihydrate
Use	Broad-spectrum antibiotic for bacterial infections
Dosage	250–875 mg orally, 2–3 times daily

Common Side Effects	Nausea, diarrhea, rash, headache
Serious Risks	Anaphylaxis, C. difficile infection, liver issues
Patient Feedback	Effective, fast relief; GI upset, rash, resistance concerns
Contraindications	Allergy to penicillin or cephalosporins

Sources: [Drugs.com](<https://www.drugs.com/amoxicillin.html>),
[Practo](<https://www.practo.com/medicine-info/amoxycillin-15-api>), [Apollo Hospitals](<https://www.apollohospitals.com/medicines/amoxicillin>)
