

**Erythromycin** is an antibiotic used for the treatment of a number of bacterial infections. This includes respiratory tract infections, skin infections, chlamydia infections, pelvic inflammatory disease, and syphilis. It may also be used during pregnancy to prevent Group B streptococcal infection in the newborn, as well as to improve delayed stomach emptying. It can be given intravenously and by mouth. An eye ointment is routinely recommended after delivery to prevent eye infections in the newborn.<sup>[4]</sup>

Common side effects include abdominal cramps, vomiting, and diarrhea. More serious side effects may include *Clostridium difficile* colitis, liver problems, prolonged QT, and allergic reactions. It is generally safe in those who are allergic to penicillin. Erythromycin also appears to be safe to use during pregnancy. While generally regarded as safe during breastfeeding, its use by the mother during the first two weeks of life may increase the risk of pyloric stenosis in the baby. This risk also applies if taken directly by the baby during this age. It is in the macrolide family of antibiotics and works by decreasing bacterial protein production

### **Mechanism of action**[edit]

Erythromycin displays bacteriostatic activity or inhibits growth of bacteria, especially at higher concentrations. By binding to the 50s subunit of the bacterial rRNA complex, protein synthesis and subsequent structure and function processes critical for life or replication are

inhibited. Erythromycin interferes with aminoacyl translocation, preventing the transfer of the tRNA bound at the A site of the rRNA complex to the P site of the rRNA complex.

Without this translocation, the A site remains occupied, thus the addition of an incoming tRNA and its attached amino acid to the nascent polypeptide chain is inhibited. This interferes with the production of functionally useful proteins, which is the basis of this antimicrobial action.

Erythromycin increases gut motility by binding to Motilin, thus it is a Motilin receptor agonist in addition to its antimicrobial properties.

Common side effects of E.E.S. (erythromycin ethylsuccinate) include:

- nausea,
- vomiting,
- abdominal pain,
- stomach cramping,
- loss of appetite,
- diarrhea,
- dizziness,
- headache,
- feeling tired,
- vaginal itching or discharge, or
- mild itching or skin rash.

Tell your doctor if you have serious side effects of E.E.S. (erythromycin ethylsuccinate) including:

- signs of liver disease (such as persistent nausea or vomiting, yellowing eyes or skin, dark urine, severe stomach or abdominal pain),
- unusual tiredness,
- muscle weakness,
- slurred speech,
- blurred vision,
- drooping eyelids, or
- hearing loss.