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### **TETRACYCLINE**

Tetracycline is an antibiotic that fights infection caused by bacteria. Tetracycline is used to treat many different bacterial infections of the skin, intestines, respiratory tract, urinary tract, genitals, lymph nodes, and other body systems. The tetracycline is a large group of drugs with a common basic structure and activity. All tetracycline have a nucleus of four cyclic rings which are called broad spectrum antibiotics. All tetracycline are slightly bitter solids, weak water soluble, however their hydrochlorides are more soluble.

#### MECHANISM OF ACTION

They inhibit protein synthesis by binding to 30S ribosomal subunit at a site that blocks binding of charged tRNA to the 30S site of the ribosome. They are bacteriostatic. Tetracycline can inhibit mammalian protein synthesis, but because they are pumped out of most mammalian cells do not usually reach concentrations needed to significantly reduce mammalian protein synthesis.

# INDICATION FOR USE

Tetracycline is used to treat many different bacterial infections of the skin, intestines, respiratory tract, urinary tract, genitals, lymph nodes, and other body systems. It is often used in treating severe acne, or sexually transmitted diseases such as Syphilis, Gonorrhea, or Chlamydia.

### **TOXICITY**

Tetracycline may produce gastrointestinal irritation, with nausea, vomiting, and diarrhea, loss of appetite, mouth sores, sore throat, dizziness, headache as well as renal failure. Bone and teeth discoloration are known to occur in humans under clinical treatment with high levels of tetracycline.

## **ADVERSE EFFECTS**

Common side effects of tetracycline include;

- nausea, vomiting, diarrhea, upset stomach, loss of appetite;
- white patches or sores inside the mouth or on the lips swollen tongue, black tongue, trouble swallowing.
- sores or swelling in your rectal or genital area. vaginal itching