

Tetracyclines Side Effects

Tetracyclines have several toxicities, which should be understood and considered by the caregiver. Side effects from tetracyclines are not common, but include discoloration of teeth, photosensitivity, and inhibition of bone growth. Due to inhibition of bone growth and teeth discoloration, these drugs are considered to have teratogenic effects and should not be given to pregnant women or children under the age of 8.



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Side Effects

Superinfection

Super-bacteria

As the antibiotic kills pathogenic bacteria, normal flora levels (bacteria that are normally found in the body) are altered. This disruption of normal flora balance and overgrowth of opportunistic bacteria can then lead to a superinfection. Competition for resources among bacteria has shifted due to the eradication of certain bacteria during treatment. Examples include fungal infections of the mouth, pharynx, vagina and bowels from overgrowth of normal flora.

Clostridioides difficile

Classroom with Differential-equations

Infection with *Clostridium difficile* may result, as antimicrobial associated pseudomembranous colitis is a possible side effect from tetracycline use. This occurs because the antibiotic kills off pathogenic bacteria, letting intestinal flora that normally exists in only small amounts grow out of proportion.

Discoloration of Teeth

Discolored Teeth

Tetracyclines are considered teratogens due to the strong association with teeth discoloration in the fetus and developing infant. It may result in permanent staining of teeth characterized by dark, yellow, gray teeth with a horizontal band across the bottom and top rows.

Bone Deformities

Bone-suit

These drugs are known to be associated with inhibition of bone growth in children when given in therapeutically high doses.

Photosensitivity

Photo-camera causing Sensitive-tears

An important side effect of tetracyclines is photosensitivity, as they can increase the risk of sunburn under exposure to light. This side effect is of particular importance for patients that use this class of medication for long-term malaria prophylaxis, as it can cause permanent sensitivity and sun damage.

Contraindications

Children Under 8

Child with (8) Ball

This drug class should not be given to children under the age of 8, as these medications can lead to teeth discoloration and inhibited bone growth in children.

Pregnancy

Pregnant-woman

Use of tetracyclines in pregnancy is contraindicated due to the teratogenic effects exhibited. These include inhibition of bone growth as well as characteristic teeth discoloration.