

Minocycline

Minocycline is an antibiotic that is often used for dental infections and acne. It is similar to the antibiotics doxycycline and tetracycline.

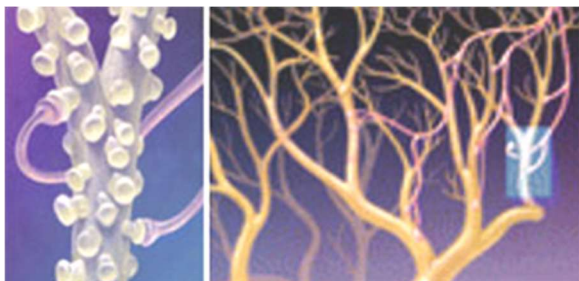
Minocycline can reduce the negative symptoms of schizophrenia (which resemble depression). Minocycline has not been fully evaluated in clinical depression, but small studies show it may have promise there as well.

How it works

Minocycline is primarily an antibiotic, but also has effects separate of this which are relevant to depression. It restores dopamine in the mood-center (the *amygdala*), reduces neurotoxic compounds (*glutamate*), reduces inflammation in the brain and body, and helps brain cells to grow and strengthen:



Before treatment: the effects of depression and stress have caused this nerve cell to shrink back like a tree with few branches.



After treatment: treatment has strengthened the roots and connections of the brain cell. The

result is better communication within the brain and better stress management.

How should I take it?

Minocycline should be taken at night, with or without food. It is best to go to bed after taking it.

What if I forget a dose?

Take the missed dose as soon as you remember it. However, if it is almost time for the next dose, skip the missed dose and continue your regular dosing schedule. Do not take a double dose to make up for a missed one.

How long do I need to take it?

This will depend on your response, history of depression, and the other treatments you are using.

What happens if I stop it?

Minocycline is not addictive and does not cause withdrawal symptoms.

Side effects

Minocycline is generally well tolerated and overall had similar side effects to a placebo (sugar-pill). Please call us if you feel you are having a problematic reaction to it.

One precaution is that it can cause sensitivity to sunburn (see below on protection from sun).

Minocycline is not known to cause drowsiness, weight gain or sexual side effects.

Because minocycline is an antibiotic, it can alter the body's normal bacteria and increase the risk of infection (e.g. fungal or *Clostridium difficile*, which would lead to diarrhea or stomach pains). You can help prevent this by taking a probiotic with minocycline (see below).

Children: Should be avoided during tooth development (e.g. children younger than 8

years) as it can lead to yellow-tinted teeth if used in that age group.

Pregnancy: Minocycline is not safe in pregnancy or breast-feeding (it can impair bone growth in the baby).

Preventing side effects

1) Take a daily probiotic to prevent diarrhea

Probiotics are “healthy bacteria” found in yogurts and other foods. They have long been known to help the digestive track work better and to relieve symptoms of irritable bowel syndrome. They can even improve anxiety.

Best sources: Gastrointestinal doctors recommend the *Align* brand. Other brands have positive benefits in anxiety (e.g. *Mood Probiotic*, *Probio Serene*, available on Amazon). Many yogurts and other foods (e.g. Kefir drink) contain probiotics.

2) Avoid sunburn

Sunburn is important to prevent because of its association with skin cancer. On sunny days, use a broad spectrum sunscreen with an SPF of at least 30 (good affordable brands are Target’s Up&Up and No-Ad). Put on 15-30 minutes before going out in the sun; reapply ever 1-3 hours. Protective clothing (e.g. Solumbra brand), sunglasses (look for at least UV 400 protection), broad-rimmed (at least 4-inches) hats and shade can help.

Overdose

Minocycline is relatively safe in overdose.

Interactions

Minocycline has no significant interactions. If you are starting a new medication you can double-check for interactions at:

reference.medscape.com/drug-interactionchecker

How to store and dispose of medication

- Keep out of the reach of children.
- Store away from heat, direct light and damp places.
- To safely dispose of unwanted pills: Do not pour in the toilet or sink (it will enter the water supply). To prevent children or pets from eating it, mix unwanted pills in a bag with a little water and inedible trash (such as coffee grounds or kitty litter) and throw in the trash.

Cost and insurance coverage

Minocycline is available in generic form. If you are paying out-of-pocket, the lowest cost is usually found at Costco (336-970-2300; you do not need to be a member to use their pharmacy).

Quick facts

Brands	Minocin, Solodyn, Arestin, Dynacin
Dose range	15-45mg/day
Sizes	Tabs: 25, 50, 75mg ER tabs: 45, 90, 135mg
Release date	6/30/1971
FDA-approval	Periodontitis

—Chris Aiken, MD, updated 11/28/2015