

Vancomycin: 7 things you should know

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1. How it works

- Vancomycin is an antibiotic that works primarily by inhibiting the formation of the bacterial cell wall. It also affects the permeability of the bacterial cell membrane and RNA synthesis.
- Vancomycin belongs to the class of medicines known as glycopeptide antibiotics.

2. Upsides

- Vancomycin capsules are usually only used to treat *Clostridium difficile*-associated diarrhea and enterocolitis caused by *Staphylococcus aureus*.

- Vancomycin injection treats more serious infections in other parts of the body (apart from the gut), that are not susceptible to other antibiotics.
- Available as oral capsules, oral solution, and in an injectable form.
- Generic vancomycin is available.

3. Downsides

If you are between the ages of 18 and 60, take no other medication or have no other medical conditions, side effects you are more likely to experience include:

- Nausea, abdominal pain, vomiting, diarrhea, flatulence, and low potassium levels are the most common side effects associated with vancomycin capsules. Edema, back pain, urinary tract infection, and a headache may also occur.
- Orally administered vancomycin is not effective for the treatment of infections other than *C. difficile*-associated diarrhea and enterocolitis caused by *S. aureus*. Occasionally, an overgrowth of nonsusceptible bacteria may occur.
- Oral capsules are not systemically absorbed enough to effectively treat infections that occur outside the gut; however, some absorption can occur in patients with inflammatory disorders of the intestine. Parenteral

products are not effective for the treatment of *C. difficile* diarrhea or *S. Aureus* enterocolitis.

- Vancomycin capsules and oral solution need to be administered three to four times daily.
- May affect kidney function; the risk is greatest in those older than 65 years. Monitoring of kidney function during and immediately following treatment may be required. Most cases have occurred within one week of cessation of vancomycin treatment.
- Vancomycin may be ototoxic (toxic to the auditory nerve, cochlear, or vestibular system of the ear). This may cause transient or permanent hearing loss. The risk is highest in people given large intravenous doses of vancomycin, with pre-existing hearing loss, or receiving another ototoxic agent, such as gentamicin.
- Rarely, "Red Man Syndrome" has been associated with vancomycin IV. Symptoms include flushing of the upper body, shortness of breath, a skin rash, itching, pain, muscle spasms, and low blood pressure. Most reactions resolve within 20 minutes; however, some may persist for several hours.
- May not be suitable for some people including those with inflammatory bowel disease (including Crohn's disease or ulcerative colitis), kidney disease, or hearing loss.
- May interact with several other medications including those that also affect the kidneys or are ototoxic, oral contraceptives, cholestyramine, or colestipol.

Note: In general, seniors or children, people with certain medical conditions (such as liver or kidney problems, heart disease, diabetes, seizures) or people who take other medications are more at risk of developing a wider range of side effects. [View complete list of side effects](#)

4. Bottom Line

- Vancomycin is an antibiotic that may be used in the treatment of *C. difficile*-associated diarrhea or enterocolitis when given orally, or other severe infections when given intravenously (IV). Oral dosages are not typically absorbed into the bloodstream; however, people with inflammatory diseases of the colon may be at risk. Higher dosages and IV use of vancomycin increase the risk of ear and kidney side effects.

5. Tips

- If you have been prescribed vancomycin capsules for the treatment of *C. difficile*-associated diarrhea or enterocolitis, take it exactly as directed by your doctor and finish the course. Do not use vancomycin capsules to treat any other type of infection. Vancomycin is not effective for viral infections, such as the flu.
- Contact your doctor immediately if you experience hearing loss or a ringing in your ears, if you develop diarrhea that is very watery or bloody, or if you are concerned that

vancomycin may be affecting your kidneys (symptoms include swelling, weight gain, pain in the lower back or on your side, little or no urination).

- Also talk with your doctor if you think your potassium levels may be low (symptoms may include confusion, extreme thirst, muscle weakness, increased urination, or an uneven heart rate), or if you have any other worrying side effects.
- Talk to a doctor or pharmacist before taking any other medication with vancomycin, including medication bought over-the-counter, to check that it is compatible.

6. Response and effectiveness

- Orally administered vancomycin is usually only effective for infections in the stomach and intestines such as *C. difficile*-associated diarrhea and enterocolitis caused by *S. aureus*. In most people, oral vancomycin is poorly absorbed systemically (does not get absorbed through the gut into the bloodstream). However, there have been reports of absorption of oral vancomycin particularly in those with inflammatory disorders of the intestine.
- Although symptoms may improve early on in the course of therapy, it is important to finish the course as prescribed to reduce the risk of resistant bacteria developing. The usual duration of therapy is seven to ten days.

7. Interactions

Medicines that interact with vancomycin may either decrease its effect, affect how long it works for, increase side effects, or have less of an effect when taken with vancomycin. An interaction between two medications does not always mean that you must stop taking one of the medications; however, sometimes it does. Speak to your doctor about how drug interactions should be managed.

Common medications that may interact with vancomycin include:

- amikacin
- aminoglycosides, such as gentamicin or tobramycin
- bile acid sequestrants, such as colestipol or cholestyramine
- lactobacillus
- NSAIDs such as ibuprofen, diclofenac, or naproxen
- piperacillin
- sirolimus or tacrolimus
- sodium picosulfate
- sulfasalazine
- sulindac
- tenofovir
- warfarin

- vaccinations, such as BCG, cholera, or typhoid
- zoledronic acid.

Note that this list is not all-inclusive and includes only common medications that may interact with vancomycin. Refer to the prescribing information for vancomycin for a complete list of interactions