

## What's your problem?

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PL's resident medical expert, Dr Nick Medland, answers readers' letters about Viagra, anal warts and peripheral neuropathy.

### Vexing Viagra

**Julian, from Gosford NSW, writes:** *I have been HIV positive for almost ten years. I have been taking meds for the past three and am currently on d4T, 3TC, indinavir and ritonavir. My T-cells are about 350 and my [viral load](#) [1]A measurement of the quantity of HIV RNA in the blood. Viral load blood test results are expressed as the number of copies (of HIV) per milliliter of blood plasma. is undetectable. My problem is that I have had trouble getting erections and my doctor has prescribed Viagra for it. It works well — I feel like a new man and I have been feeling a few new ones lately!*

*I have been told by my doctor not to take any more than half a Viagra at a time because I am on ritonavir (two 100mg tablets twice a day). I want to know how safe you think it is to take Viagra with ritonavir — occasionally I have needed to take more than half a tablet to get the desired effect and I don't know how dangerous that is. What can go wrong?*

*I am writing because after I have taken Viagra I sometimes get a pounding sensation in the ears for several days afterwards. It is particularly noticeable when I lie down to sleep at night — I can hear the sound of my heart pumping fast. Do you think it could be related to Viagra? My doctor isn't sure.*

**Dr Nick replies:** When you take a medication or drug your body recognises it as a foreign substance and tries to prevent it being absorbed from the intestinal tract; any that does enter the circulation is broken down, usually by enzymes in the [liver](#) [2]A large organ, located in the upper right abdomen, which assists in digestion by metabolising carbohydrates, fats and proteins, stores vitamins and minerals, produces amino acids, bile and cholesterol, and removes toxins from the blood..

There is a particular enzyme in the lining of the gut called P-Glycoprotein (or PGP) which tries to stop drugs entering the bloodstream. And there is an enzyme in the liver called P450 which tries to break down chemicals that get past the first line of defence in the drug wall. Ritonavir blocks or inhibits both PGP and P450 — in fact that's why you're taking it, so the PGP won't prevent indinavir from being absorbed and so that P450 won't break it down. The result is that indinavir is absorbed more efficiently and stays around longer.

The problem is that many drugs, not just indinavir, or involved in this PGP/P450 process. In the development phase the dosage and administration of the drugs have been worked out in people in whom PGP and P450 are functioning normally. Viagra is one of these drugs.

So when someone on ritonavir takes Viagra, it enters the bloodstream much more rapidly than usual (because PGP is blocked), and reaches a much higher level in the blood stream and remains there for much longer (because P450 is blocked). The strength of this reaction depends on your dose of ritonavir and the timing of your Viagra dose — the sooner the Viagra is taken after the ritonavir the greater the effect.

Having said that, there is a huge variation in the levels and dosages of Viagra that people require to get a good effect, and it's a fairly safe drug even at high blood levels. Its main danger is that if taken with amyl nitrate/poppers (or other nitrate drugs) it can cause a dangerous drop in blood pressure.

This problem frequently arises in those who take Viagra to overcome the erection problems they develop on recreational drugs like ecstasy. After a night of dancing they're dehydrated and exhausted, they go home with someone, take some Viagra and someone waves an amyl bottle under their nose: there's a lot of potential for danger. The other potential danger, which remains unproven, is the risk of heat attack in those at high risk of [heart attack](#) [3]A life-threatening emergency in which the blood supply to the heart is suddenly cut off, causing the heart muscle (myocardium) to die from lack of oxygen.. It's not known if it is the Viagra which causes this or strenuous

exercise performed while taking Viagra.

The main problem you will encounter if you need to take higher doses is the one you already have mentioned — that is the balance between side effects and [efficacy](#) [4](Of a drug or treatment). The maximum ability of a drug or treatment to produce a result regardless of dosage. A drug passes efficacy trials if it is effective at the dose tested and against the illness for which it is prescribed. In the standard procedure, Phase II clinical trials gauge efficacy, and Phase III trials confirm it. I'm not sure what advice to give you here: the effects you mention certainly do sound like Viagra side effects, perhaps if you delayed your next dose of ritonavir/indinavir by a few hours you might allow the level to go down. You might be able to discuss with your doctor the safety of taking a slightly lower dose of ritonavir.

## No War(ts)

*Barry's letter about recurring anal warts in last edition's What's Your Problem? has generated several responses from readers.*

**Guy, from Gold Coast Qld, writes:** I had exactly the same problem. I had the warts frozen off and podophyllin paint applied for months but still they came back. I was told surgery is unsuccessful so I never tried that.

I no longer have the warts after using Thuja ointment. Thuja is a herb with [antiviral](#) [5]A medication or substance which is active against one or more viruses. May include anti-HIV drugs, but these are more accurately termed antiretrovirals. activity, made by Greenridge Botanicals. I liberally applied the ointment morning and night to the whole anal area (oh, what a feeling.) I also took Cysteine which is useful for the prevention and treatment of warts but I believe it was the Thuja that stopped the warts. I used four 50g jars to get results. The ointment leaves an oily residue on clothing but eventually washes out.

Thuja may not work for everybody but it worked for me and it is not expensive at \$8.75 per jar. Cysteine costs \$9.75 per bottle. I believe Thuja may work better when the warts surface has been abraded. I would apply it after the podophyllin paint ate away at the surface of the warts. It was a matter of trial and error.

**Shaun, from Mt Hawthorn WA, writes:** I may be able to add some extra information regarding the use of cidofovir for treating anal warts (and other infections). For the past few years I have been using a 1% cidofovir topical gel to treat severe molluscum contagiosum lesions on my face and torso, with some success. The gel was formulated by Royal Perth Hospital pharmacists and mainly consists of 1% IV cidofovir in a lubricating jelly base. The gel is not commercially available (since the manufacturer had trouble with low demand and shelf-life) and must be made from the IV solution. As Dr Nick commented this is very expensive and the consultant microbiologist/immunologist at RPH had to lobby the hospital [ethics](#) [6](In clinical trials) The process of determining that a proposed clinical trial conforms to a wide range of moral, scientific and ethical standards, to ensure that participants in the trial are not abused, mistreated or unfairly taken advantage of. Before a clinical trial can go ahead, it must be given approval via an independent ethics process. and administration for months to get permission for me to use it.

Cidofovir is active against various poxviruses (including molluscum and Human Papilloma Virus) and the topical gel formulation does appear to work but it requires a great deal of perseverance and patience. It takes about 1-2 months of daily application (best worn at night like a face mask) to the individual molluscum lesions to achieve an inflammatory response after which the lesions blister, crust over and finally peel away from the skin. The whole process takes about one month per lesion and is not pretty. At times, it looks like a nasty gravel rash on my face. Treating anal warts this way may not be ideal but it may be worth a try if Barry has exhausted all other options. I am sure RPH would share the recipe for making the gel assuming he can get local approval to use IV cidofovir.

## Peripheral Neuropathy Problems

**Trent, from Chippendale NSW, writes:** *I have a fairly good viral load (1800 last count) and T-cells about 300 but I am experiencing severe problems with peripheral neuropathy. My doctor has taken me off the "d" drugs (ddl and d4T) which probably caused the problem but things are not getting any better.*

*The pain and discomfort I'm experiencing is intense and causing me sleepless nights and some mobility problems. I've now been prescribed painkillers and antidepressants to try to overcome the pain but they have not been very*

*successful — they either bomb me out or make it hard to function during the day. Can you suggest any other approaches to treating peripheral neuropathy?*

**Dr Nick replies:** Peripheral neuropathy is a type of nerve damage caused mostly by the drugs ddT and ddI, particularly in combination with each other. It is a form of mitochondrial toxicity, which means that the drugs interfere with the mitochondria, the part of the human cell which generates energy for the cell. Most of the long-term side effects of nucleoside drugs are related to mitochondrial toxicity in one way or another.

These nucleoside drugs particularly damage long nerves of the body — the nerves taking sensory information (the sense of touch) from the skin to the spinal cord, where the messages are then relayed to the brain. The longer the nerve, the more likely it is to be affected, so this problem is usually first noticed in the feet or the toes as the nerves connecting these peripheries are the longest nerves in the body.

The main problem is that by the time the symptoms appear much of the damage has already been done. In fact, the symptoms can continue to worsen for a month or two after the offending drugs are stopped. The nerve damage can result in numbness or a burning pain which is notoriously difficult to treat. Unfortunately, painkillers are not all that effective in controlling this sort of pain. Antidepressants taken at night can reduce the overall amount of pain in the long term, although it might be hard to discern any short-term benefit.

Pain is a complex phenomenon that involves not only the nerve signals but also processing in the brain in such a way that it is difficult, if not impossible, to ignore. The antidepressants probably work by making it a little easier to ignore the pain.

For most people the painful aspects of the peripheral neuropathy slowly diminish over time as the damaged nerves slowly recover what function they can and adapt to the function that they have lost. This means that in the end some numbness usually remains but the burning pain you are dealing with slowly fades away.

Other than the treatments you mention, some creams and applications can help to relieve the symptoms by stimulating the nerves with other signals. Deep Heat creams or liniments, capsicum creams or even nasal decongestant drops, when applied to the area can reduce the sense of pain a little. Acupuncture is a [complementary therapy](#) [7] A broad range of healing philosophies, approaches, and therapies that Western (conventional) medicine does not commonly use to promote well-being or treat health conditions. Examples include acupuncture, herbs, Traditional Chinese Medicine, etc. that can reduce the level of pain and, like the antidepressants, make the pain easier to ignore.

Finally, some antioxidants including co-enzyme Q and L-acetyl carnitine, although not proven, might have some effect of reducing the damage within the nerve cell itself by protecting the mitochondria from some of the toxic effects of the drugs. Unfortunately, acupuncture and antioxidants are not government subsidised and can get quite expensive but may be available more cheaply through AIDS councils.

I would advise that you try everything that you can easily afford but take some comfort in the likelihood that the intensity of the symptoms will diminish slowly over time.

- [HPV](#)
- [peripheral neuropathy](#)
- [treatment side effects](#)

#### Links:

- [1] <http://www.napwa.org.au/glossary/term/416>  
[2] <http://www.napwa.org.au/glossary/term/102>  
[3] <http://www.napwa.org.au/glossary/term/103>  
[4] <http://www.napwa.org.au/glossary/term/486>  
[5] <http://www.napwa.org.au/glossary/term/123>  
[6] <http://www.napwa.org.au/glossary/term/498>  
[7] <http://www.napwa.org.au/glossary/term/478>

