
TREATMENT BULLETIN

A comprehensive guide to health and well-being for people living with HIV/AIDS
November 2011



CONTRAINDICATIONS,
INTERACTIONS, & HIV:

WHAT YOU NEED TO KNOW

Toronto People With AIDS Foundation

www.pwatoronto.org



Disclaimer: The Treatment Resources Program at the Toronto People With AIDS Foundation provides information and resources to empower people living with HIV/AIDS to be proactive around their health by working in partnership with their health care providers. We do not recommend or promote any treatment in particular. We strongly urge those interested in any specific treatment to consult a wide range of resources, including a qualified medical and/or complementary therapy practitioner who has experience in working with HIV+ individuals.

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Information about HIV can be confusing. From transmission to treatment, there can be a whole new set of do's and don'ts to consider when HIV+, and trying to sort them out can seem to be a herculean task! *Is there anything you need to avoid now that you are living with HIV? Are there any interactions between your medications and any herbal or vitamin supplements you may have been taking? Are there things that you need to be aware of while trying to stay healthy?*

This treatment bulletin is intended to provide you with an overview of some of the things you need to be aware of if you are living with HIV. This bulletin is not able to cover every interaction or contraindication, so always be sure to check in with your healthcare provider if you have any questions, concerns or are taking anything new. Most of the suggestions in this bulletin apply to the general population as well, however, they might be of increased importance in people whose immune systems are weakened.

FOOD

You're probably thinking – Seriously? Do I have to start avoiding my favorite foods now? Rest assured the food restrictions with HIV are minimal and mostly relate to medication use and food safety.

It is important to keep eating a well-balanced diet to ensure that you are getting a wide range of nutrients to keep your body healthy. Whole grains (e.g., brown rice, whole wheat, oats, barley), vegetables, fruit, and healthy proteins (e.g., fish, lean meats, tofu, beans) are all important for providing the nutrients that your body needs in order to keep the immune system functioning well.

There are some things that you should be more conscious of, however. While it doesn't mean you need to completely avoid all of these, you should try to moderate their consumption.

Added Sugar

Consuming excess amounts of sugar has been shown to negatively affect the functioning of the immune system. It can temporarily affect the ability of your white blood cells to engulf bacteria and, overall, weaken your body's resistance to infections.

Added sugars are sugars that do not naturally occur, but rather, are added to food during preparation or processing. Some of the biggest culprits of added sugar in your diet include sugary drinks such as sodas, sports drinks, and fruit juices, as well as sweetened breakfast cereals.

Don't be fooled by the type of sugar either – when looking at the ingredients list, sugar can appear in many different forms. Look for these on the label to determine whether a food contains added sugar: brown sugar, cane juice and cane syrup, glucose, dextrose, fructose, sucrose, syrup, lactose, maltose, raw sugar, molasses, invert sugar, honey, high-fructose corn syrup, granulated white sugar, fruit juice concentrate, confectioners' sugar, corn sweetener and corn syrup.

You can easily get a sense of how much sugar is in any product by looking at the nutrition facts panel that is located on the label. Four grams of sugar is approximately equivalent to one teaspoon of sugar. Your typical can of soda contains about 40 grams of sugar. This means that there are just about 10 teaspoons of sugar (40/4) in one can!

Fats and Oils

This guideline shouldn't only apply to those with HIV but to everyone. With HIV infection however, evidence is showing that the body ages faster because of persistent inflammation caused by the virus, putting you at risk for heart disease and other chronic diseases at an earlier age. Certain HIV medications also increase your risk of developing heart disease by increasing the level of fats and cholesterol in your blood.



When reading labels try to keep trans fat and saturated fat as low as possible. Saturated fat is typically found in animal sources such as meat and dairy products. Trans fats are created when liquid oils are modified to make them more solid in a process known as hydrogenation.

Trans fats are especially bad for you as they increase your bad cholesterol, lower your good cholesterol and increase your risk for heart disease, stroke, and type 2 diabetes. They are found primarily in fried foods and baked goods and you can always find information on how much trans fat is in a product on the nutrition label. Ideally your intake should be as close to zero as possible!

Try to stick to healthy, unsaturated fats such as olive, canola, and safflower oils, avocado, nuts and seeds, and fatty fish such as salmon, mackerel, herring, and trout. These fats can have a positive effect on your health and lower your risk of heart disease.

Raw Foods

Certain raw foods contain bacteria and parasites that can cause infection. These include undercooked or raw eggs, oysters, sushi, and very rare or raw meats. Whether you decide to avoid these is up to you, and many people who are HIV+ continue to enjoy these foods without any concerns. You may decide to restrict these foods based on the status of your immune system, for example if your CD4 count is low.

While most people would be able to fight off any bacteria or parasites that might be present in these foods, those with depressed immune function might have a harder time doing so.

Grapefruit, Pomelos and Seville Oranges



There is a significant interaction between the antiretroviral drug Saquinavir (a protease inhibitor), cholesterol and other medications and grapefruit, including the juice. Certain compounds found within the grapefruit can interfere with an enzyme that breaks down medication in your body. If the enzyme cannot breakdown medication properly, it may build up to dangerous levels in the blood.

Seville oranges and pomelos are also thought to have a similar effect and so you may need avoid these if on antiretrovirals or other treatment. Always make sure to check with your pharmacist to see if there are any food-drug interactions with any medication that you take, including those for other conditions besides HIV.

MEDICATIONS

Most over the counter medications are safe to take, even with HIV medications. If there are specific drugs that interact with any HIV medications you may be taking, your pharmacist should discuss them with you, and if not, don't be afraid to ask! Some medications that are sold without a prescription that you may want to check in with your pharmacist about include antihistamines (allergy medication) and some antacids. There are a lot of drugs that we don't currently have any information for and so if you experience any unusual symptoms after taking a new medication (prescription or over the counter) or supplement, you should consult with your doctor or pharmacist as soon as possible.



SUPPLEMENTS

There is a misconception that because supplements are “natural” they must be safe. While this is true of most vitamins and minerals when taken in recommended doses, it does not apply to herbal products.

Many herbal products, while effective, can have drug-like effects in the body and/or alter various body functions. This means that they can affect your immune system or interact with medications you may be taking. You should always consult with a

health care professional or pharmacist knowledgeable about herbal therapy. Employees in health food stores may seem knowledgeable but are not trained in pharmacology or medicine and so may be unaware of potential interactions or contraindications with various health conditions. You can also find a lot of information online but keep in mind that the reliability and accuracy of information on the internet can be quite variable!

St. John’s Wort

St. John’s Wort is probably the most famous when it comes to herb-drug interactions. This herb is used for the treatment of mild to moderate depression, but has a **major** interaction with most medications, including those used in the treatment of HIV.

Contrary to the effects associated with grapefruit, St. John’s Wort can increase the rate at which your body breaks down drugs. This means that the drug leaves your body faster than it is supposed to and may have decreased effectiveness. With HIV medications this can be especially concerning because it means that the level of medication in your blood can drop below the amount needed to keep the virus from replicating. When this happens it can cause the virus to become resistant to the drug and may mean that you have to switch to a different regimen.

Garlic

Garlic can interfere with HIV treatment as well. It has a major interaction with Saquinavir, and potential interaction with most other HIV medications. This does not mean that you should not eat garlic, but rather be cautious when taking more concentrated garlic extract supplements.

Echinacea

Echinacea is a plant that is most commonly used in the treatment of colds and flus. While it may have potential interactions with some HIV medications, its use is not recommended for HIV+ individuals for another reason. It stimulates the immune system by activating CD4 cells, which may seem to be a desirable outcome, but is not recommended for those who have certain immune system disorders, including HIV/AIDS. It is thought that increased CD4 cell activation may increase viral replication, specifically when infected CD4 cells are stimulated.



Studies have also shown that Echinacea increases production of a substance called tumor necrosis alpha (TNF-alpha) by the immune system. TNF-alpha is produced for the purpose of killing off unhealthy cells in the body, but has also been linked to faster progression of HIV disease.

LIFESTYLE

Sleep

Get your sleep! This is one of those pieces of advice that everyone should heed, regardless of HIV status. Your body repairs itself and integrates all of the important information that you acquired during the day while you sleep. While scientists still haven't figured out *why* we sleep, they have been able to demonstrate the importance of sleep and how sleep deprivation affects us, both physically and mentally.

Sleep loss has been shown to impair immune system functioning and reduce your ability to fight off colds and flus. A study published in 2009 found that mammals who spent more time sleeping had higher numbers of immune cells circulating in the blood – sometimes as much as six times more in those that slept the longest! Lack of sleep can also affect performance on a variety of tasks, both mental and physical.

What is an adequate amount of sleep? A study that voluntarily infected 153 participants with a cold virus found that those who slept less than 7 hours a night were almost three times more likely to get sick than those who got at least 8 hours of sleep nightly.

Tips for good sleep include:

- Sleep in a dark room. This includes shutting off televisions, computer screens, and anything else in your room that can generate light. Even short amounts of light exposure during the night can disrupt your sleep-wake cycle by inhibiting production of melatonin, a hormone that is essential for sleeping.
- Take time before bed to let your body “quiet down” from the day. We often run around completing day-to-day tasks until it’s time to go to sleep. Going straight to bed can leave our minds reeling with all of the things we still need to do, or with worries that we don’t have time to process during the day. Try to deal with these a few hours before bed and then spend some time relaxing.
- Room temperature. Ensure that your bedroom is a comfortable temperature for you to sleep in. A room that is too hot or too cold will be uncomfortable and may cause you to wake during the night, disrupting your sleep.
- Exercise. Making exercise an important part of your routine can go a long way in helping you to sleep well. It helps to reduce anxiety, improve mood, and may help promote a more restful sleep. Try not to exercise too close to your bed time though, as the adrenaline produced during exercise may leave you too energized to fall asleep for a few hours!
- A good mattress. Make sure you’re sleeping on a mattress that is comfortable for you. Whether it’s on the firmer or softer side, the more comfortable you are, the better you’ll sleep!
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- **Stimulants.** Stimulants found in caffeinated drinks like soda and coffee, compounds in tea, nicotine in cigarettes, and recreational drugs such as cocaine, are all examples of stimulants that can interfere with your sleep. If you have difficulty sleeping you may want to consider avoiding these or avoiding them in the later half of the day, when their effects are more likely to last into bedtime.
- **Regular sleep schedule.** Going to bed and waking up at approximately the same time every day, including weekends, can improve your quality of sleep. Set an alarm if you need one.
- **Medications and supplements that can aid in sleep are available.** Always consult with your doctor or a regulated health care professional before taking these as some can have addictive properties and should always be taken with medical advice.

Recreational Drugs

Many people who are HIV+ continue to use drugs recreationally after they receive their diagnosis. While occasional use hasn't been shown to lead to faster progression of HIV disease, heavy substance use can have a negative impact on your immune system.

It is possible for some recreational drugs and HIV medications to have interactions with each other. This is particularly true of protease inhibitors, which can increase the level of some recreational drugs in your blood and put you at a higher risk for overdose. If you take HIV medication, talk to your doctor so that you can anticipate any interactions. A good doctor will listen, not judge you, and offer you support.

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potential issues related to recreational drug use.

Besides the direct impact on your immune system and with medication interactions, you have to consider some of the other potential issues related to recreational drug use. Depending on what you take, some drugs can make you lose track of time, which can pose a problem if you do have to take your HIV or other medication.

Try setting an alarm on your phone or watch that can remind you when to take your medication should you lose track of time.

You must also consider that some drugs will reduce your inhibitions and may make you more likely to participate in unprotected sex.

This can put both you and your sexual partner at risk for transmitting and contracting various sexually transmitted infections, including HIV.

If you are able to plan ahead for a day or night of hard recreational drug use, it can help you to be safer and take better care of your health.

Eat before, stock up on clean supplies, and plan for a rest day the next day where you can eat good food, hydrate, and get plenty of sleep.

Vaccinations

Whether or not you choose to get immunized is a personal decision but with HIV there are some things that need to be taken into consideration. Your risk for developing and having complications from infections such as pneumonia is greater with HIV and so you may choose to get vaccinated now if you haven't previously. Getting a flu shot is also recommended for people who are HIV+ and has to be done yearly for you to stay protected since the flu strains change from season to season.

There are some important things for you to be aware of with vaccinations. If your CD4 count is low, a vaccine may not work since you need to be able to create an immune response to the vaccine to become protected. If you are about to start HIV treatment you may want to wait until your CD4 count increases before being immunized. Speak with your doctor about what the best strategy is for you.

A vaccine can also cause a temporary increase (or "blip") in viral load in the weeks after you receive it. The immune system is activated in response to the vaccine, which also means increased viral replication, which can cause a blip in your numbers. Try to avoid having your viral load measured for several weeks after, or if you must, don't panic if you see that your viral load has gone up.

Finally, there are certain vaccines that HIV+ individuals should not receive while their CD4 count is low and so it is important that your health care provider be aware of your status. Some vaccines contain "live" but weakened strains of the virus or bacteria that they are intended to protect against in order to generate an immune response. In someone whose immune system is compromised, it can cause some serious complications and even the disease the vaccine was created to prevent. Examples of "live" vaccines include chicken pox, small pox, yellow fever, and the MMR (measles, mumps, rubella) vaccine.

The Toronto People With AIDS Foundation exists to promote the health and well-being of all people living with HIV/AIDS by providing accessible, direct, and practical support services.

ACKNOWLEDGEMENTS

This treatment bulletin was written by Jennifer Grochocinski, ND, Treatment Resources Coordinator at the Toronto People With AIDS Foundation (PWA).

PWA thanks Erin Alphonso for her time and creativity in designing and formatting this bulletin, and Lara Barker and the Canadian AIDS Treatment Information Exchange (CATIE) for reviewing the content to ensure accuracy.

PWA also thanks Bristol-Myers Squibb, Gilead Sciences, Merck, and ViiV Healthcare Shire Canada for supporting PWA's Treatment Bulletins.



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