



Toronto People With AIDS Foundation

Treatment Bulletin

Gastrointestinal Health & HIV Got a gut feeling and it isn't a good one?



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A comprehensive guide to gastrointestinal health and side effects for people living with HIV/AIDS

This treatment bulletin is intended to provide you with an overview of common gastrointestinal (GI) symptoms and conditions (both medication related and not) encountered by people living with HIV/AIDS, as well as provide you with strategies for managing some of these complaints.

The GI system is one of the most adversely affected systems in the body in those living with HIV/AIDS. Between HIV medication, HIV infection itself, and many other factors such as stress and anxiety, it can be difficult and often confusing to identify the cause of GI symptoms such as nausea, diarrhea, and appetite loss.

GI symptoms can range from mild to severe and can often be debilitating and interfere with a person's ability to take their medication or go about their normal activities of daily living. Even simple and enjoyable activities such as outings with friends can become difficult and a source of stress when having to worry about factors such as passing gas or whether there will be a bathroom nearby.

If you are starting HAART for the first time or are changing medications, ask your doctor or local HIV/AIDS service organization for resources on the particular medications you are or will be taking so that you can prepare yourself for what to expect and get ahead of the game in being prepared to deal with it.

The Gastrointestinal (GI) System

Your gastrointestinal, or GI, system is responsible for breaking down food into nutrients so that they can be absorbed and used by your body for energy. The GI system includes many organs in your body such as your tongue, esophagus (the tube that connects your mouth to your stomach), stomach, small & large intestine, rectum, pancreas, liver, and gall bladder. Each of these plays a unique role in digestion.

Some of the functions of the GI system include:

Tongue: a muscular organ that helps with chewing and mixing food with saliva, swallowing, and tasting food

Esophagus: a muscular tube that moves food from your mouth to your stomach

Stomach: mixes and breaks down (digests) food

Liver: produces a substance called bile which flows into the small intestine and helps you to absorb fat

Gall Bladder: a pear shaped organ that sits below your liver and stores much of the bile produced in the liver until you need it.

Pancreas: produces enzymes which help to break down fats and proteins and produces hormones called insulin & glucagon, which help to regulate the sugar levels in your blood.

Small Intestine: largely responsible for nutrient absorption and helping to move food into the large intestine

Large Intestine: very effectively absorbs water from the food & liquid you consume

Rectum & Anus: stores and expels waste products

How does HIV affect the GI system?

The GI system contains a large part of the immune system, known as the mucosal immune system. Early in infection, HIV leads to a decrease in the presence of CD4+ cells in the intestinal tract. While long term HAART therapy seems to restore CD4+ cells to the intestinal tract, there still may be lasting impact on the gut.

HIV has both direct and indirect effects on the GI system. It can affect the lining of your small intestine which in turn prevents it from properly absorbing nutrients. This can cause diarrhea, gas, bloating, and food sensitivities and can eventually lead to malnutrition.

Indirectly, because HIV affects your immune system, low CD4 counts make you more susceptible to getting parasitic infections, such as Cryptosporidium, that affect the GI tract.

HAART (Highly Active Anti-Retroviral Therapy) and the GI system

With the advent of HAART, people with HIV are living long, productive lives. HAART, however, is known to cause many side effects, and is especially associated with GI complaints.

Almost all HIV medications are associated with nausea, vomiting and/or diarrhea. Thankfully these symptoms,

when due to HAART, usually will subside within a few weeks or months of starting therapy.

To help reduce the side effects of HAART medications take them exactly as prescribed. For example, if a medication is required to be taken with food, doing so can actually help reduce some of the nausea that may be associated with that particular medication.

Prolonged symptoms should be investigated by your doctor since they can be the result of other HIV-unrelated illnesses and may require treatment.

Other factors that can cause GI symptoms

Non-HAART medications Non HAART medications can also cause symptoms such as nausea and diarrhea. Anti-depressant, antibiotic, birth control, pain and cancer medications are just some of the drugs known to cause these symptoms. One very commonly used over the counter drug class, the non-steroidal anti-inflammatory drugs or NSAIDs, which include aspirin and ibuprofen (e.g. Advil), can cause nausea, vomiting, diarrhea, stomach upset and appetite loss in some people, symptoms also commonly associated with HAART.

Supplements Certain supplements when taken at higher doses can produce GI symptoms. Magnesium, often used for muscle relaxation and heart conditions but also found in most calcium supplements, can produce diarrhea. Vitamin C when taken at the high doses (several thousand milligrams) that most people take during colds & flus, can cause looser stools as well. Many supplements, including iron and multivitamins, can cause nausea and stomach upset. Try not to take supplements on an empty stomach unless specifically instructed to do so to help reduce the chance of an upset stomach.

Diet Certain foods can cause stomach upset. Foods that are fried, fatty, spicy and acidic can cause heartburn for many people. Garlic, onions, vegetables such as broccoli and cauliflower, beans, and lentils can cause gas and bloating. Some people are lactose intolerant and cannot tolerate dairy and can have gas, bloating, and diarrhea when they consume dairy products. If any of these foods cause a problem for you, the best way deal with them is simply to avoid the food itself. In the case of lactose intolerance, try taking an over the counter enzyme, like Lactaid, which can help you to break down the lactose in dairy and tolerate it better.

Psychological causes The nervous system and GI system are closely linked. If you've ever had to go to the washroom before a test or big event, or suffered from stomach aches during periods of prolonged stress, you'll have experienced this connection first hand. Anxiety and stress can trigger a variety of symptoms including diarrhea, gastritis (inflammation in the stomach lining), stomach aches, and loss of appetite. If this is happening to you it may be a sign that you are not coping well and you may want to consider seeking counseling or using other stress reducing techniques to help you manage your stress and anxiety. Once you are coping better, the symptoms should subside.

Other health concerns Diseases such as irritable bowel syndrome, inflammatory bowel disease (Crohn's, ulcerative colitis), gall bladder disease, ulcers in the stomach and small intestine, and liver disease are just some of the other health concerns which may or may not be related to HIV infection and treatment and can cause some of the common GI complaints (nausea, vomiting, diarrhea, stomach aches, etc) that have been discussed so far.

Guide to GI Symptoms & Management

This section will discuss some of the symptoms and conditions associated with HIV infection and treatment. The more that you know, the more prepared you can be to make sense of, and manage, some of these conditions.

Nausea/Vomiting Nausea (the feeling of wanting to vomit) & vomiting can be particularly problematic for several reasons. It can interfere with your day-to-day activities, cause dehydration, and impair your ability to consume and absorb both nutrients and medications, and overall make you feel pretty awful. Almost all HAART medications have nausea & vomiting as a potential side effect, which should subside within a few weeks-months of starting therapy.

When HIV infection progresses and CD4 counts are low, certain opportunistic infections can develop and

indirectly cause nausea and vomiting. If this is a new symptom that you have suddenly developed, see your doctor for an assessment.

Your doctor can prescribe medications called anti-emetics that help decrease nausea and prevent vomiting. You do not have to live with these symptoms indefinitely. If you experience prolonged nausea or nausea/vomiting that is severe enough to prevent you from taking your medications or being able to keep down any food or fluids, see your doctor right away. Small amounts of marijuana have also been shown to be helpful in managing nausea. Discuss your options with your doctor, who may be able to help you access medicinal marijuana legally.

Tips for managing nausea/vomiting:

- *Take your medications exactly as prescribed*
- *Eat smaller meals more frequently throughout the day*
- *Avoid spicy, greasy foods – stick to soups and bland foods*
- *Ginger is a natural anti-nauseant – Try boiling ginger root, drinking ginger ale or tea, or even buying ginger candy or chews*
- *Keep dry crackers and pretzels around you and eat them first thing in the morning or whenever you feel ill*
- *If you are vomiting frequently try to stay hydrated. If you can't keep any fluids down see your doctor right away since you are at risk for dehydration.*
- *Consider acupuncture or acupressure – there are points that can effectively help to manage nausea*

Diarrhea Diarrhea is another symptom that has many causes and can be associated with most HAART medications. Normal stools should be formed or solid but soft enough to easily pass without any pain or straining. When it becomes loose or watery and increases in the number of times you have to go each day, it is then considered to be diarrhea.

Diarrhea can be a result of both HAART and non-HAART medications, infections with bacteria (e.g. salmonella, which causes food poisoning), viruses (e.g. cytomegalovirus, or CMV), foods, anxiety, stress, and other diseases. When CD4 counts are low (below 200) then diarrhea can be either due to the effects of HIV itself on the intestinal lining, or due to opportunistic parasitic infections like Cryptosporidium, which can live in contaminated drinking water.

Try to keep a log of your daily activities (new medications, foods, travel) and bowel movements to share with your doctor which can help them to determine what may be causing your diarrhea. Your doctor may order blood, stool or other tests to try to figure out the cause of your diarrhea. Anti-diarrheal medications may be prescribed depending on how severe your symptoms are.

Tips for managing diarrhea:

- *Stay hydrated – drink plenty of clear, non-sweet fluids to prevent dehydration which can occur VERY quickly with diarrhea (sweet fluids can make your diarrhea worse)*
- *Avoid spicy, greasy, and hard to digest foods (e.g. raw) and dairy*
- *Stick to foods that are plain and starchy – rice, oatmeal, toast, cooked vegetables and fruits*
- *Green (unripe) bananas have been shown to help diarrhea. They can be cooked or eaten as is.*

Gas Gas can cause stomach pain, cramping and flatulence (farting). This last symptom in particular can be embarrassing for many people. While passing gas is quite a normal event (everyone farts!), when excessive or when having difficulty passing it can cause quite a bit of discomfort and shouldn't be overlooked.

Tips for managing gas:

- *Avoid foods that are known to cause gas such as broccoli, onions, dairy, eggs, and beans*
- *Try drinking peppermint or chamomile tea throughout the day*
- *Over the counter gas relieving medication like Gas-X can help. Speak to your doctor or pharmacist to make sure it does not interact with any other medications you are taking.*

Appetite loss Loss of appetite can be the result of several factors. Feeling depressed, stressed, or physically ill can all affect your appetite and make you feel like you don't want to eat. Not eating enough calories can be problematic for several reasons. It can lead to malnutrition, wasting (extreme weight loss), and affect the way our organs function.

There are some HAART medications that may be associated with an increased risk of appetite loss. These include: Combivir, Epivir, Norvir, Retrovir, Trizivir, and Ziagen.

If appetite loss is an issue for you talk to your doctor who can help you to identify the cause of your appetite loss and treat it appropriately. He/She may prescribe an appetite stimulant. Many people living with HIV also use small amounts of marijuana to help increase their appetite. Talk to your doctor about which option is best for you.

Constipation Constipation occurs when your bowel movements are infrequent, hard, and require straining to pass them out. While generally a less common side effect of HAART, in a small percentage of people taking Invirase, Norvir, Retrovir, and Reyataz, constipation is a possible side effect. Not having enough fibre or water in your diet, as well as other intestinal disorders, like irritable bowel syndrome, can also contribute to constipation.

Constipation can be uncomfortable and lead to abdominal bloating and discomfort. You shouldn't leave constipation untreated over the long term since it can cause numerous problems, some of them serious. Hard stools that are difficult to pass can cause tears in the anal tissue known as anal fissures. These can be quite painful and are often described as a sharp, tearing pain that occurs with a bowel movement. You may also notice bright red blood with the bowel movement and on the tissue when wiping afterwards. Once the constipation resolves usually these tears will heal, however, if they don't, medical interventions (medications, surgery) may be necessary.

Your doctor may treat your constipation with over the counter fiber supplements, stool softeners, or laxatives. In more severe cases where a long time has passed since your last bowel movement, you may need an enema, which "flushes" out any stool that may be stuck in your large intestine and may be preventing stools from passing.

Some tips for managing constipation include:

- *Drink plenty of water, especially if you are eating a lot of fibre. Increased fibre without enough water can actually worsen your constipation. Aim for 8 cups/day.*
- *Consume plenty of fibre through whole grains, vegetables, fruits, bran, or if needed, through a fibre supplement such as Metamucil or Benefiber.*
- *Eat yogurt that has probiotics added or consider taking a probiotic supplement (healthy bacteria that everyone already has in their gut and helps with digestion), especially if you've taken antibiotics recently, or frequently. Probiotic yogurts can be found in most grocery stores and supplements in most health food stores. A good quality probiotic supplement will require refrigeration.*

Mouth conditions Mouth problems in people living with HIV/AIDS can be the result of HIV infection itself, or due to bacterial, fungal or viral infections (when CD4 counts are low and the immune system can't fight them off). Always do your best to brush and floss to ensure that you have good oral and dental health.

Enlarged salivary glands (glands in and around your mouth that produce saliva) can be the result of HIV infection itself and can lead to a decreased production of saliva and therefore a dry mouth. Be aware that a dry mouth can also occur with taking protease inhibitors. Chewing sugarless gum may help.

Oral Candidiasis, or thrush, is caused by overgrowth of a fungus that occurs naturally in our body. When the immune system is injured and CD4 counts are low, they can overgrow and cause white patches in the mouth and throat, and possibly cause difficulty swallowing. Candida can be hard to avoid because it occurs naturally in our bodies but cutting down on the sugar you eat, eating probiotic yogurt and maintaining good oral health can keep it under control.

Keeping your GI healthy

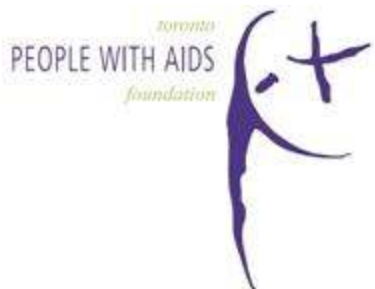
Making sure your digestive system is healthy can go a long way in keeping you feeling well. Eating a healthy diet full of fruits, vegetables, whole grains, and staying away from foods that you know can cause you problems can all contribute toward a healthy GI. While some symptoms and conditions may be unavoidable, being informed and taking charge of your health can help you be better equipped to deal with them when they do happen. Also remember keep track of all your symptoms and don't ever hesitate to visit your doctor if you are concerned or feeling unwell for a prolonged period of time.

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Mission

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