

HIV & You

A HEALTHY LIVING GUIDE FROM



THE BODY

The Complete HIV/AIDS Resource



Managing Gut Symptoms

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Fulyzaq™

(crofelemer) 125 MG
DELAYED-RELEASE TABLETS

The following is a brief summary only; see full Prescribing Information for complete product information at www.Fulyzaq.com.

INDICATIONS AND USAGE

FULYZAQ is an anti-diarrheal indicated for the symptomatic relief of non-infectious diarrhea in adult patients with HIV/AIDS on antiretroviral therapy.

CONTRAINDICATIONS

None.

WARNINGS AND PRECAUTIONS

Risks of Treatment in Patients with Infectious Diarrhea

If infectious etiologies are not considered, and FULYZAQ is initiated based on a presumptive diagnosis of non-infectious diarrhea, then there is a risk that patients with infectious etiologies will not receive the appropriate treatments, and their disease may worsen.

Before starting FULYZAQ, rule out infectious etiologies of diarrhea. FULYZAQ is not indicated for the treatment of infectious diarrhea.

ADVERSE REACTIONS

Clinical Trials Experience

A total of 696 HIV-positive patients in three placebo-controlled trials received FULYZAQ for a mean duration of 78 days.

Adverse reactions for FULYZAQ that occurred in at least 2% of patients and at a higher incidence than placebo are provided in Table 1.

Table 1: Adverse Reactions Occurring in at Least 2% of Patients in the 125 mg Twice Daily Group

Adverse Reaction	Crofelemer 125 mg BID* N = 229 n (%)	Placebo BID* N = 274 n (%)
Upper respiratory tract infection	13 (5.7)	4 (1.5)
Bronchitis	9 (3.9)	0
Cough	8 (3.5)	3 (1.1)
Flatulence	7 (3.1)	3 (1.1)
Increased bilirubin	7 (3.1)	3 (1.1)
Nausea	6 (2.6)	4 (1.5)
Back pain	6 (2.6)	4 (1.5)
Arthralgia	6 (2.6)	0
Urinary tract infection	5 (2.2)	2 (0.7)
Nasopharyngitis	5 (2.2)	2 (0.7)
Musculoskeletal pain	5 (2.2)	1 (0.4)
Hemorrhoids	5 (2.2)	0
Giardiasis	5 (2.2)	0
Anxiety	5 (2.2)	1 (0.4)
Increased alanine aminotransferase	5 (2.2)	3 (1.1)
Abdominal distension	5 (2.2)	1 (0.4)

*Twice daily

Adverse reactions that occurred in between 1% and 2% of patients taking a 250 mg daily dose of FULYZAQ were abdominal pain, acne, increased aspartate aminotransferase, increased conjugated bilirubin, increased unconjugated blood bilirubin, constipation, depression, dermatitis, dizziness, dry mouth, dyspepsia, gastroenteritis, herpes zoster, nephrolithiasis, pain in extremity, pollakiuria, procedural pain, seasonal allergy, sinusitis and decreased white blood cell count.

DRUG INTERACTIONS

Drug Interaction Potential

In vitro studies have shown that crofelemer has the potential to inhibit cytochrome P450 isoenzyme 3A and transporters MRP2 and OATP1A2 at concentrations expected in the gut. Due to the minimal absorption of crofelemer, it is unlikely to inhibit cytochrome P450 isoenzymes 1A2, 2A6, 2B6, 2C9, 2C19, 2D6, 2E1 and CYP3A4 systemically [see *Clinical Pharmacology* (12.3)].

Nelfinavir, Zidovudine, and Lamivudine

FULYZAQ administration did not have a clinically relevant interaction with nelfinavir, zidovudine, or lamivudine in a drug-drug interaction trial.

USE IN SPECIFIC POPULATIONS

Pregnancy

Pregnancy Category C

Reproduction studies performed with crofelemer in rats at oral doses up to 177 times the recommended daily human dose of 4.2 mg/kg revealed no evidence of impaired fertility or harm to the fetus. In pregnant rabbits, crofelemer at an oral dose of about 96 times the recommended daily human dose of 4.2 mg/kg, caused abortions and resorptions of fetuses. However, it is not clear whether these effects are related to the maternal toxicity observed. A pre- and postnatal development study performed with crofelemer in rats at oral doses of up to 177 times the recommended daily human dose of 4.2 mg/kg revealed no evidence of adverse pre- and postnatal effects in offspring. There are, however, no adequate, well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers

It is not known whether crofelemer is excreted in human milk. Because many drugs are excreted in human milk and because of the potential for adverse reactions in nursing infants from FULYZAQ, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

Pediatric Use

The safety and effectiveness of FULYZAQ have not been established in pediatric patients less than 18 years of age.

Geriatric Use

Clinical studies with crofelemer did not include sufficient numbers of patients aged 65 and over to determine whether they respond differently than younger patients.

Use in Patients with Low CD4 Counts and High Viral Loads

No dose modifications are recommended with respect to CD4 cell count and HIV viral load, based on the findings in subgroups of patients defined by CD4 cell count and HIV viral load.

The safety profile of crofelemer was similar in patients with baseline CD4 cell count less than 404 cells/ μ L (lower limit of normal range) (N=388) and patients with baseline CD4 cell counts greater than or equal to 404 cells/ μ L (N=289).

The safety profile of crofelemer was similar in patients with baseline HIV viral loads less than 400 copies/mL (N = 412) and patients with baseline HIV viral loads greater than or equal to 400 copies/mL (N = 278).

Rx Only

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FULYZAQ is distributed by Salix Pharmaceuticals, Inc. under license from Napo Pharmaceuticals, Inc.



The botanical drug substance of FULYZAQ is extracted from *Croton lechleri* (the botanical raw material) that is harvested from the wild in South America.



ART-related diarrhea

Positively in Control

As unique as ART-related diarrhea is to HIV patients, so is its treatment. With its novel mechanism of action, Fulyzaq™ is the only treatment proven effective for the relief of ART-related diarrhea.¹

In clinical studies, the most common adverse reactions were upper respiratory tract infection, bronchitis, cough, flatulence, and increased bilirubin.

Diarrhea relief with a distinction



Fulyzaq™

(crofelemer) 125 MG
DELAYED-RELEASE TABLETS

Indication

FULYZAQ™ is an anti-diarrheal indicated for the symptomatic relief of noninfectious diarrhea in adult patients with HIV/AIDS on antiretroviral therapy.

Important Safety Information about FULYZAQ

FULYZAQ™ (crofelemer) delayed-release tablets should not be used for the treatment of infectious diarrhea. Rule out infectious etiologies of diarrhea before starting FULYZAQ. If infectious etiologies are not considered, and FULYZAQ is initiated based on a presumptive diagnosis of noninfectious diarrhea, then there is a risk that patients with infectious etiologies will not receive the appropriate treatments, and their disease may worsen.

Based on animal data, FULYZAQ may cause fetal harm. Safety and effectiveness of FULYZAQ have not been established in patients less than 18 years of age.

In clinical studies, the most common adverse reactions (occurring in $\geq 3\%$ of patients and at a rate greater than placebo) were upper respiratory tract infection, bronchitis, cough, flatulence, and increased bilirubin.

Please see brief summary for FULYZAQ [FUHL-ih-zack] on the adjacent page and complete Prescribing Information at www.Fulyzaq.com.

Reference: 1. Fulyzaq [prescribing information]. Raleigh, NC: Salix Pharmaceuticals, Inc; 2013.

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HIV & You



THE BODY
The Complete HIV/AIDS Resource

Managing Gut Symptoms

CLINICAL REVIEW

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Boundless gratitude to the people whose names, images and quotes appear within this booklet: Your personal stories and your wisdom make this resource a thousand times more useful and meaningful.

To find a full version of this booklet online, visit TheBody.com/gut-booklet.

Consult your doctor! The only purpose of this booklet is to educate and inform. It is no substitute for professional care by a doctor or other medical professionals. TheBody.com neither endorses nor opposes any particular treatment option discussed in this booklet. Instead, we encourage you to discuss all of your options with a health care provider who specializes in treating HIV.

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Introduction

AS MORE AND MORE people with HIV get connected to care and start HIV treatment, it is vital that they understand all the details about the drugs they are taking, especially regarding any potential side effects. Side effects are the number one concern for many people starting a new medicine.

Gastrointestinal (GI), or “gut,” problems are the most common symptoms experienced by people with HIV. Diarrhea, soft stools, nausea, flatulence (farting), constipation and heartburn are the unpleasant symptoms of GI distress. Although people living with HIV may experience many side effects, it is the gut side effects that are often the most bothersome. Not only can they disrupt your daily routine, but they can be embarrassing. Gut problems may also affect the way you take HIV meds, since they are often the culprit in GI discomfort.

There are many reasons people experience gut-related problems besides medications, so it’s important to get to the root cause of the symptom in order to lessen its severity — or to completely stop it.

The information in this booklet will help you learn more about the causes of GI distress, the details about specific side effects, which HIV medications can cause them and ways to counteract the symptoms. We’ve gathered facts from the U.S. health department’s HIV treatment guidelines, the go-to resource for HIV health professionals — as well as advice from seasoned experts in the HIV field, including doctors and longtime HIV survivors. Having this information will help you in conversations with your own medical providers.

Signs, symptoms, side effects

Technically, a *side effect* occurs as a result of taking a medication. *Symptoms* refer to a set of complications that you as a patient notice. Doctors take note of any *signs* they are seeing with their patients. In any case, the causes of gut problems can be challenging to uncover.

What Causes Gut Problems?

1 HIV MEDICATIONS

While HIV medications have changed the epidemic in terms of actual lives saved, they are also believed to be the cause of most gut problems in HIV-positive people. Gut problems affect many people taking HIV meds, but they often get better after the first few weeks or months of treatment. Since the first month on treatment is so critical, working closely with your HIV care team is important to minimize any discomfort you are feeling and help ensure that you miss as few doses of meds as possible. Your physician may suggest diet changes, over-the-counter medicines or prescription medications. If an HIV med is found to be the culprit, she or he may decide to switch it for another one that may be “friendlier” to your gut.

2 OTHER MEDICATIONS OR SUPPLEMENTS

Medications that are used to treat conditions other than HIV can also cause gut problems. For instance, you may be taking medications such as antibiotics or antifungal drugs to ward off certain infections. These medications can upset the chemical balance in your stomach, potentially causing nausea, diarrhea or other problems. Also, some vitamins or supplements, such as vitamin C, can make diarrhea more likely.

3 HIV

HIV itself has been known to cause many gut problems. A condition known as malabsorption can occur, which means that your gut is not able to properly absorb and process food and nutrients. This may result in loose stools, gas, bloating, increased sensitivity to certain foods (such as milk products, spicy foods and caffeine) and malnutrition.

Figuring out what is causing your gut problems can be tricky. Is it an HIV medication? Is it HIV itself? Is it your diet? Is it a parasite? Is it psychological? Is it a little bit of everything — or something else?

But typically, HIV’s role is indirect. Because HIV targets your immune system, if HIV meds aren’t taken properly, that may put you at risk for certain infections, which can cause nausea, diarrhea and other symptoms. So taking meds and keeping your HIV viral load at undetectable levels may be among the best ways to improve gut function.

4 DIET

A regular, balanced diet is important in maintaining a normal-functioning gut. Food is a common reason for GI distress.

5 PSYCHOLOGICAL TRIGGERS

For some people, a traumatic incident — like learning their HIV status — or depression and stress, which are fairly common in people living with HIV, may have a dramatic physical impact on their GI system. These psychological stressors can cause a complete loss of appetite, or leave you feeling ill and nauseated. Typically, these problems subside, but some people have ongoing mental health issues and could benefit from counseling and other mental health support.

6 OTHER HEALTH ISSUES

Other diseases — such as gastritis (an inflammation of the stomach lining), irritable bowel syndrome, inflammatory bowel disease, ulcers, diabetes and certain cancers — can cause gut problems. Advanced HIV disease (when your CD4 count is below 200) can also make you more likely to have parasites or other germs that may cause gut problems.

Gut symptoms that could signify serious health problems

There are a few rare, but serious, side effects from HIV medications that may have gut-related symptoms — such as pancreatitis (associated with Videx) and lactic acidosis (associated with Retrovir, Videx and Zerit).

The symptoms of pancreatitis, an inflammation of the pancreas, include nausea, vomiting and stomach or back pain.

The symptoms of lactic acidosis, a buildup of the chemical lactic acid in the body, include persistent nausea, vomiting and abdominal pain.

▶Tip To reduce your risk of gut-related symptoms, do your best to take your meds exactly as prescribed. For instance, if your meds were meant to be taken with a light snack or a high-fat meal, be sure to do so.

Diarrhea

upclose
& personal

People with HIV are at risk for changing bowel movements, and may tend to “normalize” the changes because they simply get used to them.

WHAT IS IT?

Diarrhea usually means watery stools several times a day for several days in a row. Regularity is key in determining a “normal” bowel movement. For most people, this means two or three times a day. Normal stool is usually not extremely hard, but isn’t watery either. When you have bowel movements much more frequently than is usual for you and your stool is extremely watery, that’s when you may have diarrhea. Just having watery stool once doesn’t necessarily mean you have diarrhea. Diarrhea may be accompanied by nausea, cramps or bloating.

WHAT CAUSES IT?

Diarrhea can be caused by many different factors (so, once again, it’s important to find out the cause in case other medications or warnings may be prescribed):

- ▶ **Bacterial infections**, such as salmonellosis and shigellosis, which cause most cases of food poisoning
- ▶ **Viruses**, such as herpes, cytomegalovirus and norovirus
- ▶ **Parasites**, which may live in contaminated drinking water or be transmitted sexually (e.g., *Cryptosporidium*, *Entamoeba histolytica*, *Giardia* and microsporidia), are more common in HIV-positive people with a CD4 count below 200
- ▶ **Foods**, especially those that your body may have trouble digesting, such as milk products and spicy meals
- ▶ **Medications** — not just certain HIV meds, but other medications you may be taking
- ▶ **Vitamins and supplements** — for example, high doses of vitamin C, whey protein or creatine
- ▶ **HIV** can directly cause diarrhea through its effects on the lining of your small intestine if your CD4 count is below 200
- ▶ **Mental stress or anxiety**
- ▶ **Other diseases**, including irritable bowel syndrome, inflammatory bowel disease, diabetes, some cancers and intestinal disorders

Name: **Shana**
Home: **Oklahoma**
Age: **42**
Diagnosed: **1994**
CD4 Count: **515**
Viral Load: **Undetectable**
Job: **Health educator, public speaker and client advocate**



SHANA DOESN'T RECALL what it feels like to have an HIV-free digestive system — she’s been living with an AIDS diagnosis for her entire adult life. The brand-new HIV medications she took in the ‘90s caused constant diarrhea. “I was fully dedicated to eating organic, and taking supplements,” she says; “but it didn’t matter what I ate.”

“In getting used to the effects of meds, you go through stages: Can I live with this? Can I adjust to it?”

She recalls that the diarrhea caused by Crixivan was “not like regular diarrhea; it was like your body was rejecting everything in a huge rush.” Once she was unable to beat that rush home — and ended up with a speeding ticket. “I was crying, and the cop asked me why I was speeding. I blurted out: ‘Because I have AIDS and I crapped my pants, and my body’s falling apart.’ He gave me the ticket anyway.”

Nowadays, Shana takes Intelence, Kaletra and Viread, the sixth regimen she’s taken since 1995; and she’s learned what keeps her gut symptoms at bay: “I cannot eat fast food; it goes right through me. I know that I have to be really careful what kind of water I drink; it has to be purified. And I really have to make sure that I eat enough fruits and vegetables and get enough good fiber.”

➔ Read Shana’s blog at TheBody.com/shana.

Are HIV Meds to Blame?

While most of today's HIV meds are well tolerated, all currently available HIV meds have the *potential* to cause diarrhea (with the exception of Fuzeon, the only approved non-oral medication).



The following HIV meds seem to be most commonly associated with diarrhea:

- ▶ **cobicistat** (a component of the combination pill Stribild)
- ▶ **Kaletra**
- ▶ **Norvir**
- ▶ **Prezista**
- ▶ **Viracept**

However, remember that taking one of these medications doesn't automatically mean you'll be dealing with diarrhea.

Diarrhea caused by HIV meds usually lasts only for the first few weeks after you've begun a new medication and then decreases.

Consider all the medications you may be taking for non-HIV related problems.

▶ **Viewpoint** "The anti-diarrheal medicine, to me, just felt opposite of what my body was trying to do. My doctor was very open-minded to different approaches to deal with diarrhea."

—Shana, diagnosed in 1994

How to Treat Diarrhea

THERE ARE MANY WAYS to treat and/or control your diarrhea, which may help you stay adherent to your HIV meds. In the case that there is no treatment, your doctor may switch you to another medication.

▶ **Over-the-counter meds.** The most popular are Imodium A-D, Pepto-Bismol and Kaopectate.



▶ **Supplements.** Fiber supplements — such as Benefiber, Citrucel, Metamucil and oat bran tablets — can help. So can a wide range of other chemicals and herbs, such as L-glutamine, calcium carbonate (when taken with meals), acidophilus capsules (especially with psyllium added), ginger (in capsules, in teas or even raw), nutmeg and peppermint.

▶ **Prescription meds.** Fulyzaq (the only antidiarrheal medication approved just for people living with HIV), Lomotil, camphorated tincture of opium and subcutaneous Sandostatin can be prescribed by your doctor.





Diarrhea & Your Diet

THE WAY WE EAT CAN MAKE DIARRHEA WORSE. The BRAT diet — Bananas, Rice, Apples (fruit, sauce or juice) and Toast — is one way of helping improve diarrhea.

THE WAY WE EAT MAY ALSO HELP LESSEN DIARRHEA. Try not to rush meals. Chew food well before swallowing, and wait an hour or more before being physically active (no running, swimming, sex, etc.).

These foods may help lessen or control diarrhea:

- ▶ **Baked chicken** (with no skin or gravy)
- ▶ **Boiled eggs**
- ▶ **Oatmeal and cream of wheat**
- ▶ **Plain starches**, like mashed potatoes, white toast, white rice, soup crackers (e.g., saltines), well-cooked beans and macaroni (no cheese)
- ▶ **Rice**
- ▶ **Soft fruits and veggies**, preferably well-cooked and with no skins or seeds (like bananas and applesauce)

These are some foods to avoid or cut down on:

- ▶ **Caffeine** in cola, teas and chocolate
- ▶ **Dairy**, including milk, cheese and butter — but plain yogurt is actually good for your GI system, since it contains “friendly bacteria” that can be lost with diarrhea
- ▶ **Oily or greasy foods**, including fried food
- ▶ **Raw fruits and vegetables**
- ▶ **Anything with seeds**, including many types of whole wheat and rye bread
- ▶ **Spicy foods**

You Need Water!

DIARRHEA CAN MAKE your body lose a lot of water in a very short amount of time — as much as a gallon a day! If you don't drink enough water when you have diarrhea, you can quickly become weak and dehydrated. When you become too dehydrated, your body can go into shock, which is a life-threatening condition. When you lose too much fluid, you also lose electrolytes, which help keep your body functioning normally.

Be sure to drink more clear, non-sweet liquids (water, non-caffeinated tea, Pedialyte, club soda and chicken broth). Avoid non-clear liquids like milk, and sweet liquids like fruit juice or cola, as these can actually make your diarrhea worse.



▶ Make your own rice drink

The “Ask the Experts” forums at TheBody.com are filled with useful advice from experts as well as those living with HIV. In one post, a man who says he had tried every anti-diarrheal medication on the market gave his recipe for keeping his diarrhea at bay. He boils a big pot of water and adds about half a cup of uncooked white rice. He cooks it for 45 minutes and a soupy, tasteless, white rice water develops. He drains the liquid into a container and drinks this rice water two or three times during the day, and sometimes eats the overcooked rice as well. He says it is the only thing that has worked for him. Some people add a drop of honey to this to make it taste better.

▶ Visit TheBody.com/experts for more answers and tips.



Talking to Your Doctor

▶Viewpoint

“I adjust my life around the diarrhea ... But you know, once I sit with my doctor, she’s probably going to say, ‘Why didn’t you talk about this before? We have something that could help you.’”

—Andrena, diagnosed in 1993

IN ANY CONVERSATION with your health care provider, honesty is always the best policy. Be as open and as clear as possible when responding to any questions. While some questions may be embarrassing, trust your doctor and answer fully.

Your doctor needs to know everything you’ve put in your body over the past few days, because any of it may be causing your diarrhea. If you’re seeing a new doctor, be sure to mention your HIV status, medications and CD4 count as this information can be very important in helping sort out the cause.

Before your doctor’s visit, you may want to jot down:

- ▶ Exactly what your poop has been like (don’t be afraid to provide graphic details)
- ▶ Exactly when your diarrhea started and how often you’ve had to use the bathroom
- ▶ Any other unusual things you’ve been feeling physically
- ▶ Changes in your diet, especially anything new you ate or drank just before your diarrhea started
- ▶ New prescription

medications, vitamins, supplements or over-the-counter pills/ liquids you’ve started taking

- ▶ Any other drugs you’ve started taking — even if they’re illegal (your doctor won’t turn you in)
- ▶ Places you’ve recently traveled to, especially if they’re outside the U.S.
- ▶ Anything that’s changed in your life lately, like family problems or stress at work

Afterwards, your doctor may order further blood or stool tests. If your symptoms are severe or persistent, and especially if your CD4 count is below 200, your doctor may request that you have a colonoscopy or sigmoidoscopy (special procedures to look at the inside of your intestines) to discover the cause of your diarrhea. Then, he or she will decide upon a course of treatment, suggest a change of diet or lifestyle changes. If your doctor decides your medications are the cause, he or she may decide to switch treatments.

It is the doctor’s job to minimize diarrhea. They want to make sure that

HIV meds cause as few problems as possible. As always, it is important to not stop taking any of your medications without talking with your medical provider first.

▶ How your doctor should help you

If you have any of the following symptoms, call your doctor as soon as possible, since they may be signs of a more dangerous health problem:

- ▶ Diarrhea that hasn’t gone away after more than a couple of days
- ▶ Diarrhea that has blood in it
- ▶ Diarrhea that is accompanied by a fever
- ▶ Vomiting (or can’t even keep liquids down or take your meds)
- ▶ Difficulty urinating (pee’ing)
- ▶ Darker urine than usual
- ▶ Feeling unusually light-headed, confused or unexplainably angry
- ▶ Headaches
- ▶ Rapid weight loss
- ▶ Extreme fatigue

Nausea & Vomiting

upclose
& personal

Nausea is the uncomfortable feeling like you are going to vomit.

WHAT IS IT?

Also known as “queasiness” or “sour stomach,” nausea can be severe or mild and subside and return until vomiting occurs. Common types of nausea are morning sickness in women who are pregnant, and motion sickness from being in a moving vehicle or a boat. Nausea is common with morphine treatment or cancer chemotherapy.

Vomiting is the throwing up of undigested food and is usually associated with nausea.

▶ **Note** One medication you should take *without* food is *Sustiva*, a component of the one-pill-a-day regimen *Atripla*. Food can increase blood levels of *Sustiva*, which may increase central nervous system side effects like dizziness, vivid dreams and what some describe as a “cloudy” head.

ARE HIV MEDS TO BLAME?

All HIV meds, except for Fuzeon (since it is injected), can cause nausea. The following medications seem to be more commonly associated with nausea:

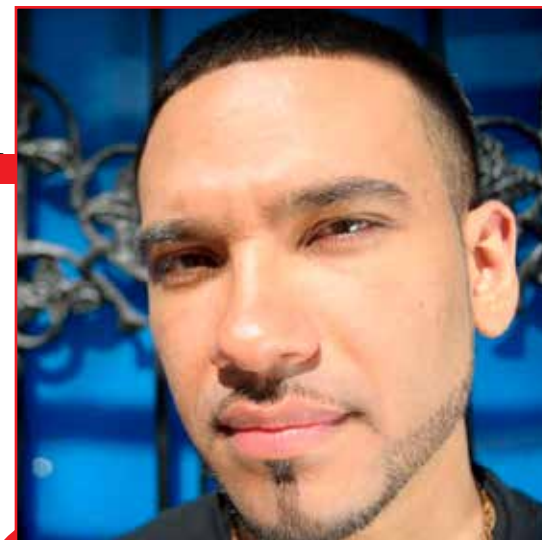
- ▶ **cobicistat** (a component of the combination pill *Stribild*)
- ▶ **Combivir**
- ▶ **Emtriva**
- ▶ **Intelence**
- ▶ **all protease inhibitors**
- ▶ **Retrovir**
- ▶ **Trizivir**
- ▶ **Videx**

Nausea may occur when starting a new medication, but it usually subsides in four to 14 days. Sometimes nausea can linger, or pop up randomly. Taking HIV meds on an empty stomach may cause nausea.

If vomiting occurs as a result of taking HIV medications, it may prevent your body from fully absorbing the meds into your bloodstream, which can lead to drug resistance. Vomiting can also cause you to lose important nutrients, since anything you recently ate or drank is coming right back out. And if you’re nauseated, you may not eat or drink enough.

Severe vomiting can cause tears or ruptures in your esophagus. This can result in bleeding. If you notice blood in your vomit, seek medical attention promptly. The same HIV meds that cause nausea can also cause vomiting, but it appears to happen most often with *Trizivir* and *Zerit*.

Name: **Eric**
Home: **New York**
Age: **27**
Diagnosed: **2008**
CD4 Count: **938**
Viral Load: **70**
Job: **Barber and student**



“**WHEN ERIC WAS DIAGNOSED** with HIV at age 22, he and his doctor thought it would be a while before he started taking HIV meds. But when his CD4 count dropped into the 300s in early 2010, they decided it was time. From the options she gave him, Eric chose *Reyataz*, *Norvir* and *Truvada* because of the regimen’s relatively few side effects. Besides a bit of diarrhea his first week on meds, taking them has been “just peachy; I have no complaints whatsoever.”

“I don’t feel well, either mentally or physically, when I don’t eat well.”

He did soon realize, though, that in order for things to stay peachy, he’d need to be on top of his diet. “It was hard to adjust,” he recalls. “Not only did I have to worry about school and work; now I have to worry about: Am I eating well? Am I sleeping well? Am I eating enough vegetables? Enough fruits?”

Eric’s meds are recommended to be taken with food: “If I don’t take the medication with a full meal, sometimes I have nausea,” he says. He can avoid this symptom entirely by eating beforehand, and drinking a full glass of water with his meds. When nausea does occur, he finds that seltzer water helps. “Fruit usually calms my stomach if I’m nauseated,” he adds; “It’s really refreshing.”



How to Treat Nausea

▶ **Tip** Be sure to ask your doctor or pharmacist if there may be a possible drug interaction between any of these treatments and the HIV meds you may be taking.

HERE ARE SOME basic suggestions that may help with nausea:

- ▶ Take ginger — it's a natural herb that can quickly remedy mild nausea. It comes in many different forms including teas, ginger ale and chopped up ginger root.
- ▶ Drink teas (especially ginger, peppermint or chamomile).
- ▶ Eat foods high in fiber.
- ▶ Keep dry crackers by your bed and eat one or two when you get up in the morning.
- ▶ Eat smaller meals and snack more frequently. A mild vegetable or chicken broth can be soothing for an upset stomach.
- ▶ Avoid spicy, greasy, fried or strong-smelling foods.
- ▶ Remove strong food odors from the house.
- ▶ Eat meals sitting up.
- ▶ Don't lie down immediately after eating.
- ▶ Sip drinks slowly.
- ▶ Avoid substances that irritate the stomach, such as alcohol, aspirin, caffeine and tobacco.
- ▶ Use meditation and relaxation techniques.
- ▶ If you find you can't eat regular food, be sure to take liquid meal supplements such as Ensure or other nutritional shakes.

▶ Medical marijuana has been known to help people on chemotherapy to ease their nausea and be able to eat (see page 23 of this booklet for more details). The prescription medication Marinol contains a synthetic part of marijuana and can help with HIV-related nausea.

▶ Antiemetics are medications designed to prevent or relieve nausea and vomiting. Many are available without a prescription, such as Benadryl, Dramamine, Pepcid AC, Tagamet and Maalox. Others require a prescription, such as Compazine, Reglan, Marinol and Zofran.

▶ Antibiotics may be prescribed if you have been diagnosed with an infection that is the cause of your nausea or vomiting.

How your doctor should help you

Like diarrhea and other GI side effects, nausea can have different causes. If you experience nausea to the degree that you cannot eat or the pain is unbearable, you should call your doctor.

Some symptoms may signal an urgent medical problem. Talk to your health care provider as soon as possible if you:

- ▶ Vomit multiple times over a 24-hour or longer period
- ▶ See blood in your vomit
- ▶ Experience other symptoms such as dizziness, thirst, fever, muscle pain, sharp stomach pain, diarrhea, headache and jaundice
- ▶ Can't take your HIV medications, or are throwing them up

If you have difficulty urinating over an 8- to 12-hour period or have a CD4 count below 200, ask your doctor to make a full evaluation.



DR. DAVID WOHL,
University of North
Carolina-Chapel Hill

DOCTOR'S NOTES

- ▶ Favorite Anti-Nausea Meds: **Marinol, Phenergan, Zofran and sometimes Ativan.**
 - ▶ Alternative Therapy: **Ginger root.**
 - ▶ HIV Meds Likely to Cause Nausea: **Norvir (Kaletra has a relatively high dose of Norvir in it). Stribild has a Norvir-like drug in it that can also cause nausea.**
 - ▶ HIV Meds Less Likely to Cause Nausea: **Atripla, Complera, Edurant, Isentress and Tivicay.**
- ➡ Visit TheBody.com/experts to ask Dr. Wohl and TheBody.com's other experts your questions!

Heartburn

About 10% of adults get heartburn (aka indigestion or reflux) at least once a week, but when it is severe, it can be dangerous.

WHAT IS IT?

Heartburn is a burning, sour feeling in your mid-chest. Known as acid reflux or GERD, it may come and go, and can last from a few minutes to a few hours.

Food travels down the esophagus, which leads from your mouth to your stomach. At your stomach, a valve opens up to let the food through, and then closes so your stomach can digest it. Your stomach mixes some pretty strong acids with the food to help break it down. Sometimes, the valve doesn't shut properly, and the acids in your stomach back up into your esophagus. This is known as heartburn because the sensation is in the area near your heart.

WHAT CAUSES IT?

Some common causes of heartburn are:

- ▶ **Alcohol**
- ▶ **Certain foods** such as chocolate; coffee; cola and other carbonated drinks; acidic or sugary food and drink (specifically, citrus fruits and juices); foods containing tomatoes, including spaghetti sauce and ketchup; fried, fatty and spicy foods; garlic and onions; mint; mustard; and vinegar
- ▶ **Certain medications**
- ▶ **Eating large meals**
- ▶ **Too much exercise** (especially after eating)
- ▶ **Being overweight**
- ▶ **Pregnancy**
- ▶ **Smoking**
- ▶ **Stress**
- ▶ **Wearing tight clothes**
- ▶ **Bearing down hard when you go to the bathroom**

Other diseases may cause heartburn as well, including pancreatitis and *H. pylori* infection.

ARE HIV MEDS TO BLAME?

They might be the cause — especially regimens containing Norvir. Other medications may cause heartburn, such as aspirin and many pain medications; certain antibiotics; certain medications for allergies, anxiety or erectile dysfunction; calcium blockers; cancer treatments and corticosteroids; and certain supplements (including iron, potassium and vitamin C).

HOW TO TREAT HEARTBURN

Acid-reducing medications (also called antacids), such as Alka-Seltzer, Maalox and Rolaids, can help. But if you are currently taking HIV meds, talk to your doctor or pharmacist before taking them. These medications may weaken the ability of some HIV meds to fight the virus, especially Aptivus, Complera, Edurant, Reyataz, Stribild and Videx EC.



DR. KEITH HENRY,
University of
Minnesota School
of Medicine

DOCTOR'S NOTES

▶ **Treatment Tips:** "I initially try antacid tablets such as Tums, followed by an acid-reducing drug such as ranitidine, cimetidine or famotidine, especially at night. Raising the head of the bed can help. If symptoms persist, I look for contributing problems (taking aspirin, ibuprofen, caffeine, alcohol, spicy foods, late-night snacking) and health conditions (such as peptic ulcer disease or *H. pylori* infection). I may refer patients to a gastrointestinal doc for further evaluation."

➔ Visit TheBody.com/experts to ask Dr. Henry and TheBody.com's other experts your questions!

How your doctor should help you

Usually, heartburn is minor and doesn't last long. But if it becomes a burden or affects your quality of life, call your health care provider. Heartburn is often easy to treat, but if left untreated, it has the potential to cause more severe health problems over time.

Talk to your doctor or call an ambulance immediately if your heartburn is especially severe or comes with any of the following symptoms:

- ▶ Difficulty swallowing or breathing
- ▶ Severe tightness or squeezing in your chest
- ▶ Unusual pain in your stomach or chest area, especially if any acid-reducing medications already recommended by your doctor or pharmacist don't get rid of it
- ▶ Vomiting, especially if it has blood in it

Gas

up close & personal

Many factors can cause gas to build up inside your stomach, which leads to any number of uncomfortable feelings: stomach pain, cramps and — most embarrassingly — flatulence (farting).

WHAT CAUSES IT?

As with other GI-related symptoms, stomach discomfort can be caused by lots of things, but it often comes down to having an intolerance or allergy to bean or dairy products. An inability to digest lactose, a sugar in most dairy products, is called lactose intolerance.

▶Viewpoint “I definitely pay more attention to my health. I have to take in more nutrients than before. Now I know that if I don’t eat well, the medications will probably have a harsher effect on my body.”

—Eric, diagnosed in 2008

Other causes may include:

- ▶Constipation
- ▶Hepatitis
- ▶Hormonal changes
- ▶Indigestion
- ▶Inhaling air while eating
- ▶Inflammation of the stomach lining
- ▶Irritable bowel syndrome
- ▶Ulcers

Besides beans, milk products and eggs, many other foods — such as broccoli, cabbage and soy products — can also cause cramps and gas. If you have cramps in your GI system, simply passing gas or having a bowel movement may alleviate the problem, at least temporarily. But when the pain or discomfort caused by excessive gas becomes frequent, it can impact the quality of your life.

ARE HIV MEDS TO BLAME?

Gas is reported as a side effect of just about every HIV medication. The following drugs in particular may be more likely to cause gas, although it’s reported in less than 7% of people:

- ▶Atripla
- ▶Invirase
- ▶Kaletra
- ▶Norvir
- ▶Prezista
- ▶Truvada
- ▶Viracept
- ▶Viread

Name: **Pastor Andrena Ingram**
Home: **Pennsylvania**
Age: **58**
Diagnosed: **1993**
CD4 Count: **565**
Viral Load: **Undetectable**
Job: **Lutheran church pastor**



PASTOR ANDRENA INGRAM knows never to schedule a meeting before 10 a.m. Before then, “I’m taking care of business,” she says. Andrena believes her morning diarrhea is due in part to taking meds at night; that’s why she takes them then, so she can make her bathroom trip before her day begins. It’s a far cry from the diarrhea she had on previous meds: “It’s not debilitating, but it is a routine.”

“There’s a pill for everything, but then there’s also my quality of life; I have to have a cup of coffee!”

Andrena has cut back on eating some things she loves, like dairy products and foods that are spicy or fried. Some items have been hard to let go — she still drinks coffee with milk, though both caffeine and dairy likely contribute to her gut symptoms, which include passing gas and bloating.

Andrena occasionally takes over-the-counter anti-gas or antidiarrheal medications, but prefers not to add more pills to her regimen of Norvir, Prezista and Truvada. So, for now, she manages her gut symptoms by adapting her diet and routine; utilizing the air freshener she carries at all times (“They have those tiny bottles of Febreze”); and, of course, employing her wonderful sense of humor.

▶ Read Andrena’s blog at [TheBody.com /pastor-ingram](https://www.thebody.com/pastor-ingram).



How to Treat Gas

Tip “Usually, if I drink some club soda, this helps me burp and bloating improves. Also, avoiding highly refined carbohydrate foods like white rice, corn syrup and most breads has helped me a lot in decreasing bloating. Exercise helps me get rid of excess water retention that may also cause bloating.”

—Nelson Vergel, HIV-Positive Nutrition and Exercise Expert

➔ Visit TheBody.com/experts to ask Nelson and TheBody.com’s other experts your questions!

THERE ARE A VARIETY of supplements manufactured specifically to curb gas, available at any local drugstore. Beano, for instance, claims to prevent gas from foods such as beans, broccoli, onions, whole grains and pasta. Lactaid can help with lactose intolerance.

Simethicone, at doses of 80-120 mg up to four times a day, may be prescribed. Gas-X contains simethicone and can relieve the discomfort of gas, pressure and bloating. Activated charcoal supplements may help decrease gas, but are *not* recommended since they can impair absorption of HIV medications.

Over-the-counter antacids can also be used to relieve gas, but may interact with some HIV meds. Be sure to talk with your doctor before you take them. Acupuncture may relieve gas in some people.

Bloating may occur without the presence of gas. It is very difficult to assess the cause of bloating that is not due to gas or indigestion. Eating smaller meals, avoiding foods that are spicy or high in sugar, and exercise may decrease the severity of bloating.

If your HIV meds are the cause of your gas and anti-gas treatments or alternative methods don’t help, then it may be time to talk with your doctor about switching HIV medications.

up close & personal

Name: **Steven**
Home: **California**
Age: **57**
Diagnosed: **1989**
CD4 Count: **About 300**
Viral Load: **Undetectable**
Job: **Airline employee currently on leave**



IN THE EARLY DAYS of combination HIV therapy, Steven was a “guinea pig” for every drug study he could join. It was his Norvir-containing regimens (including Kaletra, which has some Norvir in it) that caused gut side effects such as painful bloating and chronic diarrhea. He treated the symptoms with homeopathic remedies, drugs like Lomotil and prescription-strength Imodium, and fiber in the form of Metamucil that he added to his diet.

“Ultimately, I am my doctor. That’s how I have managed my disease: by getting as much information as I can.”

Then, in 2007, Steven was treated for HPV-related anal cancer. “Radiation treatment killed all the friendly flora in my gut,” he says. His doctor at the time prescribed “the big guns” of gut symptom management: tincture of opium, which is often used when other options have proven ineffective. “It’s not mind or mood altering, but I wasn’t too hot on the idea that it was a controlled substance,” Steven remembers. Still, it worked beautifully, and has ever since. “I generally take four or five drops under my tongue, before I eat anything — or else my food will go right through me, undigested.”

Today, Steven still participates in drug studies — his current HIV medication regimen consists of an investigational drug — and his viral load is finally undetectable. Steven also remains cancer free.

Appetite Loss

A temporary loss of appetite may be of little concern; but not eating enough over a long period of time is not good for anyone.

WHAT CAUSES IT?

Once again, a lack of appetite can have many causes. Sometimes it may be psychological — due to depression or the stress of living with HIV. Sometimes it's physical — another illness (maybe something as simple as a

cold) may take away your desire to eat. And, of course, many of the medications used to combat HIV can also cause a loss of appetite. A temporary loss of appetite may not be cause for worry, but eating very little or not eating at all is not healthy and can lead to a host of other health concerns. One of the biggest problems is known as “wasting,” or extreme weight loss (more than 10% of body weight).

ARE HIV MEDS TO BLAME?

A few HIV medications may interfere with appetite:

- ▶ **Combivir**
- ▶ **Epivir**
- ▶ **Norvir**
- ▶ **Retrovir**
- ▶ **Trizivir**
- ▶ **Ziagen**



HOW TO TREAT APPETITE LOSS

There are two prescription treatments that doctors tend to prescribe most for appetite loss. **Megace** works well to bolster appetite and has shown to improve weight gain, but almost all of the weight gain is in the form of fat or water. The drug is actually used in cancer therapy to help with weight gain, but also may change the balance of hormones in the body and decrease testosterone production.

The other drug that works well to stimulate appetite and relieve nausea and vomiting is known as **Marinol**. This is a synthetic form of THC, the main active ingredient in marijuana, which is known to stimulate eating. Since it can leave you feeling stoned, it may not be the best choice for people in drug recovery programs.

Another possible alternative is Remeron, an antidepressant taken before bedtime that has been reported to make people hungry when they wake up. However, it is not officially approved for use to increase appetite; and it can be sedating, so it is important not to take it during the day.

▶ **Viewpoint** “I always stay hydrated, so that you're flushing out your system. I know I need to drink more water. I feel like I dry out faster.”

—Eric, diagnosed in 2008

What about marijuana?

Maybe you're wondering, if you're going to take Marinol, could you use marijuana itself? Many doctors and researchers believe that smoking a little marijuana may help increase your appetite. While marijuana is forbidden by U.S. federal law, as of this writing, 16 states and the District of Columbia have passed “medical marijuana” laws that permit limited use of marijuana for health reasons. “Buyers' clubs” operate in a number of cities, and some even provide medical marijuana at low or no cost to those with limited incomes.

➔ Visit TheBody.com/marijuana for more information on medical marijuana and HIV/AIDS.



Constipation

In the short term, constipation is bad enough: It can be uncomfortable and painful. But the longer you have it, the more dangerous it can become.

WHAT IS IT?

Constipation is the opposite of diarrhea. It's when you're unable to have, or have an unusually hard time having, a proper bowel movement. Most people have two to three bowel movements per day.

▶Viewpoint **"Greasy foods just seem to have a much harder time working through me. It's easy for me to get very clogged up, and for things to slow down."**

—Shana, diagnosed in 1994

WHAT CAUSES IT?

HIV meds. Although constipation is a pretty uncommon side effect with HIV drugs, each of the following has been known to cause constipation, but in less than 7% of people:

- ▶ **Invirase**
- ▶ **Norvir**
- ▶ **Retrovir**
- ▶ **Reyataz**

Other medications. These may include heartburn meds that contain calcium or aluminum. Depression, pain or antidiarrheal medications may also cause constipation.

Diet. Diets that are low in fiber, which often means a lack of fruit, vegetables or whole grains, can cause constipation. Fiber softens up stool, allowing it to pass more easily out of the body. If you need help deciding what foods to eat, your doctor can refer you to an HIV-savvy dietitian.

▶ You can also visit **TheBody.com/nutrition** for lots of tips on healthy eating.

Other triggers. Depression, pregnancy, irritable bowel syndrome, inflammatory bowel disease, some cancers and intestinal disorders may cause constipation.

HOW TO TREAT CONSTIPATION

Add more fiber to your diet. Eating more fruits (e.g., bananas, raisins, grapes and prunes) and vegetables, plus whole-grain foods (e.g., oatmeal and bran cereals), are particularly helpful ways to do this. When a high-fiber diet isn't possible, take a fiber supplement instead, such as Benefiber or Citrucel, with extra water.

Drink more fluids. Since fluid in the body helps with softening stool, drink at least eight glasses of water a day.

Laxatives. Correctol and Ex-Lax are just two laxatives that can be bought over the counter at any drugstore and are commonly used. These should only be taken if your constipation is severe, since a laxative could cause pretty bad diarrhea. You generally don't have to worry about drug interactions with these drugs; however, chronic laxative use can

be harmful to normal bowel function. Products containing senna leaf extract, such as Senokot or Senexon (available for oral use or in suppository form), can help treat constipation without causing cramping.

Switch medications. If any medications — HIV or otherwise — are to blame for your constipation, and it goes on for months, your doctor may recommend switching to another drug(s).

Enemas. This is a more dramatic measure to treat constipation. There are different types of enema preparations, but they all clean out your colon and "flush out" any stool that may be stuck in there. However, enemas should be done infrequently if at all, and it's best to discuss this with your HIV specialist or primary care doctor.



What Can You Do About Gut Problems?

1 WRITE IT DOWN, TALK IT OUT

Keep a journal. List the problems you encounter, their frequency, how long they last and exactly how they make you feel. Explain in detail and as honestly as possible how these problems impact your life, so your health care provider can get a sense of how severe they are. For example, if you are too nauseated to eat, sometimes vomit your medications or have so much gas you're afraid to go out in public, your doctor needs to know this.

Some people tend to “normalize” many of these GI side effects because they occur so regularly in their daily life. There's a lot more to gut problems than how they make you feel.



No matter what type of gut problem(s) you have, there are several things you might consider doing.

2 CONSIDER CHANGING HIV TREATMENT

If you suspect your GI distress is caused by your HIV medications, never simply stop taking them. This can potentially make your HIV disease worse by causing resistance to your HIV medications, thereby limiting future treatment options. If your gut problems are caused by your meds, your doctor may recommend a switch in one or more of the meds in your regimen. While switching HIV drugs can be safe and may reduce side effects, there's no guarantee that the switch will help.

Your GI issues may go away on their own — or with diet changes or other treatment options discussed in this booklet — even if you don't switch HIV meds. Know your options if you and your doctor decide to switch. Remember that all medications can cause side effects. Be sure you know what are the possible side effects of any meds you are considering switching to, and whether you're willing to risk those possible side effects in order to get rid of the ones you currently have.

Above all, think of you and your doctor as a team. Your doctor wants you to stay healthy and be as comfortable as possible with any prescribed treatment.

3 LASTLY, NEVER FORGET THAT YOU ARE NOT ALONE!

Millions of other people are living with HIV, and if you're having gut problems, you can bet that many others are as well. It may sound strange, but some gut problems have a mental connection, so the better you feel emotionally, the better you may feel physically. You don't have to live in silent discomfort: Talk to your doctor, and contact your nearest HIV/AIDS organization for support.

➔ Visit asofinder.com for a listing of HIV/AIDS service organizations throughout the U.S.

▶Viewpoint

“Your body is just this giant stream. For me, spiritually, the best approach to managing gut symptoms was to understand that this was part of how my stream works: There's going to be a lot coming in, and a lot going out.”

—Shana, diagnosed in 1994



The Bottom Line

- ▶ Serious gut side effects are seen with few HIV medications.
- ▶ All HIV medications have the potential for gut side effects.
- ▶ Adjusting your life to cope with gut symptoms can happen, but be sure to take a close look at any side effect that is unusual or persistent for you.
- ▶ Never stop taking your HIV medications without first talking to your doctor.
- ▶ There are prescription, over-the-counter and complementary treatment options for many gut problems.
- ▶ Consider altering your diet to remove foods that may be causing gut distress.
- ▶ Talk to all your medical providers — doctors, pharmacists, nurses and dietitians — and be as honest as possible.

➤ For more information on HIV/AIDS and gut health, visit TheBody.com/gut!

➤ For the online version of this booklet, visit TheBody.com/gut-booklet.

➤ For all of our online patient-education guides, check out TheBody.com/booklets.



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