INFLAMMATORY BOWEL DISEASE

TAKE CONPLIMENTARY COPY TAKE ONE HOME

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THE LATEST ON

CHANGING THE GUT BACTERIA

Stem cells are immature cells that can mature and develop into any type of human cell. They could one day be an option for treatment-resistant IBD. Researchers in Japan have used them to change the gut bacteria of people with a genetic form of IBD that doesn't respond well to treatment. They took stem cells from healthy donors and transplanted them into the guts of people with this form of IBD. After the transplant, the gut bacteria of the people with IBD changed to look more like healthy, normal gut bacteria, and the IBD went into remission.

SOURCE: The Journal of Allergy and Clinical Immunology: In Practice



SOURCE: CDC

20s to 30s

Most common ages when people with IBD get a diagnosis.

FIRST-LINE TREATMENT

Doctors tend to try other less intense treatments for Crohn's disease before recommending biologics. But new research shows that's not the best approach for people with moderate to severe or fistulizing Crohn's disease. In an analysis of the available research, experts found that people with these types of Crohn's don't get significant benefit from trying other treatments first. The American Gastroenterological Association now recommends they start biologics right away.

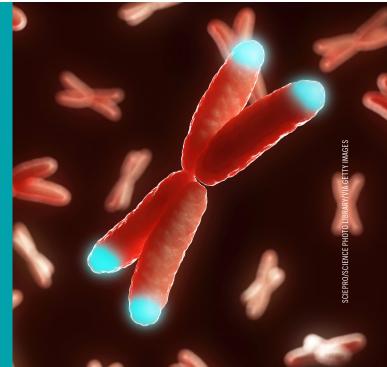
SOURCE: The American Gastroenterological Association

COULD A NEW DRUG HALT IBD?

People with IBD have short telomeres. These are strands of DNA that serve as protective caps on the ends of chromosomes and shorten as you age. Inflammation also causes these strands to shorten, and when they shorten, that causes more inflammation. New research shows that in people with IBD, shorter telomeres equal more severe disease. This finding could lead to a new treatment for IBD. Drugs that protect telomeres from shortening could help prevent or reverse the disease.

SOURCE: Proceedings of the National Academy of Sciences







EMOTIONAL WELL-BEING WITH IBD

By Rachel Reiff Ellis Reviewed by Neha Pathak, MD, WebMD Lead Medical Editor

Getting a diagnosis of Crohn's disease or ulcerative colitis can be life-altering, and not just physically. The digestive symptoms are taxing, but they can also be embarrassing, and impact how you're able to function day to day.

THE EMOTIONAL TOLL

"Life can be derailed when patients are initially diagnosed or have a flare-up," says health psychologist Sarah W. Kinsinger, PhD, director of behavioral medicine for digestive health at Loyola University Medical Center.

"Normal activities like commuting to work or going out to dinner with friends can become highly stressful due to concerns about unpredictable bowel symptoms, and on a larger scale, academic or career goals can be put on hold."

It can also be stressful to wonder if you might have a flare-up, whether your medications are working, or if you might need surgery for your IBD. The combination of all these concerns often has a negative impact on mental wellness.

"Recent research has shown that up to 1/3 of patients with IBD are affected by anxiety and 1/4 are affected by clinical depression, and these numbers are even higher for those that are in the midst of a disease flare," Kinsinger says.

BOOSTING MENTAL RESILIENCE

Practice self-care. "Think about this as one aspect of your IBD care," Kinsinger says. This may include things like meditation, yoga, scheduling time for hobbies, and connecting with friends and family. Prioritize time for healthy lifestyle behaviors, too, like adequate sleep, regular exercise, and a healthy diet. **Pace yourself.** Listen to your body and learn to adjust your activity level when symptoms are acting up. "It's OK to cancel social plans or pull back on commitments if you aren't feeling well," Kinsinger says.

Connect. Find others who understand the challenges of life with IBD, whether that's online support groups or neighbors and friends who deal with the disease. Larger organizations can also provide guidance when you

WHEN TO CALL A MENTAL HEALTH PROFESSIONAL

Sarah Kinsinger, PhD, talks about what to watch for.

Everyone has low moods and stress from time to time, but these are signs it's time to talk to a doctor about treatment for depression or anxiety.

- + You've had it for 2 weeks or more.
- + It's impacting your daily life and keeping you from functioning normally.
- You've stopped doing things you love and have little interest in activities you typically enjoy.

have questions.

"The Crohn's and Colitis Foundation (CrohnsColitisFoundation.org) has some excellent information and resources on their site, including a section specifically dedicated to the emotional impact of the disease," Kinsinger says.

Another resource is the Rome Foundation (TheRomeFoundation.org), which has a psychogastroenterology section where you can find a directory of mental health professionals who specialize in working with patients with digestive disorders.

Kinsinger says even though the disease can be mentally taxing, she also sees people with IBD develop amazing strength and resilience.

"I encourage people to acknowledge what they have overcome and the mental fortitude they have developed as a result of the illness experience," she says.



For adults with moderate to severe ulcerative colitis (UC) or Crohn's disease (CD) when other medicines have not worked well enough or cannot be tolerated.

Focus where UC/CD hits you hard. **GUT-FOCUSED ENTYVIO** IS MADE FOR YOU.

Ask your doctor how ENTYVIO:

- Acts specifically in the gut
- Helps control inflammation
- May help you achieve remission

For more information, please see ENTYVIO.com/info

Important Safety Information for **ENTYVIO®** (vedolizumab)

Entyvio[®] vedolizumab

- Do not receive ENTYVIO if you have had an allergic reaction to ENTYVIO or any of its ingredients.
- ENTYVIO may cause serious side effects, including:
- Infusion-related and serious allergic reactions can happen while you are receiving ENTYVIO or several hours after treatment. You may need treatment if you have an allergic reaction. Tell your healthcare provider or get immediate medical help if you get any of these symptoms during or after an infusion of ENTYVIO: rash, itching, swelling of your lips, tongue, throat or face, shortness of breath or trouble breathing, wheezing, dizziness, feeling hot, or palpitations (feel like your heart is racing).
- ENTYVIO may increase your risk of getting a serious infection. Before receiving and during treatment with ENTYVIO, tell your healthcare

provider if you think you have an infection or symptoms of an infection, such as fever, chills, muscle aches, cough, shortness of breath, runny nose, sore throat, red or painful skin or sores on your body, tiredness, or pain during urination.

- People with weakened immune systems can get progressive multifocal leukoencephalopathy (PML) (a rare, serious brain infection caused by a virus). Although unlikely while receiving ENTYVIO, a risk of PML cannot be ruled out. PML can result in death or severe disability. There is no known treatment, prevention, or cure for PML. Tell your healthcare provider right away if you have any of the following symptoms: confusion or problems thinking, loss of balance, change in the way you walk or talk, decreased strength or weakness on one side of the body, blurred vision, or loss of vision.
- Liver problems can happen in people who receive ENTYVIO. Tell vour healthcare provider right

away if you have any of the following symptoms: tiredness, loss of appetite, pain on the right side of your abdomen, dark urine, or yellowing of the skin and eyes (jaundice).

- The most common side effects of ENTYVIO include common cold, headache, joint pain, nausea, fever, infections of the nose and throat, tiredness, cough, bronchitis, flu, back pain, rash, itching, sinus infection, throat pain, and pain in extremities. These are not all the possible side effects of ENTYVIO. Call your healthcare provider for medical advice about side effects.
- Before receiving ENTYVIO, tell your healthcare provider about all of your medical conditions, including if you: have or think you may have an infection or have infections that keep coming back; have liver problems: have tuberculosis (TB) or have been in close contact with someone with TB; have recently received or are scheduled to receive a

Please see the Important Facts for ENTYVIO on the adjacent page and talk with your healthcare provider.

ENTYVIO is a prescription medicine used in adults for the treatment of:

• moderately to severely active ulcerative colitis



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Individual results may vary.



vaccine; or if you are pregnant, breastfeeding, plan to become pregnant, or plan to breastfeed.

You are encouraged to report negative side effects of prescription drugs to the FDA.

Visit www.fda.gov/medwatch or call 1-800-FDA-1088.

Uses of ENTYVIO[®] (vedolizumab)

moderately to severely active Crohn's disease



IMPORTANT FACTS

ENTYVIO (en ti' vee oh) (vedolizumab) for injection, for intravenous use

What is the most important information I should know about ENTYVIO?

ENTYVIO may cause serious side effects, including:

- Infusion-related and serious allergic reactions. These
 reactions can happen while you are receiving ENTYVIO or
 several hours after treatment. You may need treatment if you
 have an allergic reaction. Tell your healthcare provider or get
 medical help right away if you get any of these symptoms
 during or after an infusion of ENTYVIO: rash, itching, swelling
 of your lips, tongue, throat or face, shortness of breath or
 trouble breathing, wheezing, dizziness, feeling hot, or
 palpitations (feel like your heart is racing).
- Infections. ENTYVIO may increase your risk of getting a serious infection. Before receiving ENTYVIO and during treatment with ENTYVIO, tell your healthcare provider if you think you have an infection or have symptoms of an infection such as fever, chills, muscle aches, cough, shortness of breath, runny nose, sore throat, red or painful skin or sores on your body, tiredness, or pain during urination.
- Progressive Multifocal Leukoencephalopathy (PML). People with weakened immune systems can get progressive multifocal leukoencephalopathy (PML) (a rare, serious brain infection caused by a virus). Although unlikely while receiving ENTYVIO, a risk of PML cannot be ruled out. PML can result in death or severe disability. There is no known treatment, prevention, or cure for PML. Tell your healthcare provider right away if you have any of the following symptoms: confusion or problems thinking, loss of balance, change in the way you walk or talk, decreased strength or weakness on one side of the body, blurred vision, or loss of vision.
- Liver Problems. Liver problems can happen in people who receive ENTYVIO. Tell your healthcare provider right away if you have any of the following symptoms: tiredness, loss of appetite, pain on the right side of your stomach (abdomen), dark urine, or yellowing of the skin and eyes (jaundice).

See "What are the possible side effects of ENTYVIO?" for more information about side effects.

What is ENTYVIO?

ENTYVIO is a prescription medicine used in adults for the treatment of:

- · moderately to severely active ulcerative colitis.
- moderately to severely active Crohn's disease.

It is not known if ENTYVIO is safe and effective in children under 18 years of age.

Who should not receive ENTYVIO?

Do not receive ENTYVIO if you have had an allergic reaction to ENTYVIO or any of the ingredients in ENTYVIO. See the end of this Medication Guide for a complete list of ingredients in ENTYVIO.

Before receiving ENTYVIO, tell your healthcare provider about all of your medical conditions, including if you:

- have an infection, think you may have an infection or have infections that keep coming back (see "What is the most important information I should know about ENTYVIO?").
- · have liver problems.

- have tuberculosis (TB) or have been in close contact with someone with TB.
- have recently received or are scheduled to receive a vaccine. Talk to your healthcare provider about bringing your vaccines up-to-date before starting treatment with ENTYVIO.
- are pregnant or plan to become pregnant. It is not known if ENTYVIO will harm your unborn baby. Tell your healthcare provider right away if you become pregnant while receiving ENTYVIO.
 - Pregnancy Registry: There is a pregnancy registry for women who use ENTYVIO during pregnancy. The purpose of this registry is to collect information about the health of you and your baby. Talk with your healthcare provider about how you can take part in this registry or you may contact the registry at 1-877-825-3327 to enroll.
- are breastfeeding or plan to breastfeed. ENTYVIO passes into your breast milk. Talk to your healthcare provider about the best way to feed your baby if you take ENTYVIO.

Tell your healthcare provider about all the medicines you take, including prescription and over-the-counter medicines, vitamins and herbal supplements. Especially tell your healthcare provider if you take or have recently taken Tysabri (natalizumab), a Tumor Necrosis Factor (TNF) blocker medicine, a medicine that weakens your immune system (immunosuppressant), or corticosteroid medicine.

How will I receive ENTYVIO?

- ENTYVIO is given through a needle placed in a vein (intravenous infusion) in your arm.
- ENTYVIO is given to you over a period of about 30 minutes.
- Your healthcare provider will monitor you during and after the ENTYVIO infusion for side effects to see if you have a reaction to the treatment.

What are the possible side effects of ENTYVIO?

ENTYVIO may cause serious side effects, see "What is the most important information I should know about ENTYVIO?".

The most common side effects of ENTYVIO include: common cold, headache, joint pain, nausea, fever, infections of the nose and throat, tiredness, cough, bronchitis, flu, back pain, rash, itching, sinus infection, throat pain, and pain in extremities.

These are not all of the possible side effects of ENTYVIO.

Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

General information about ENTYVIO

Medicines are sometimes prescribed for purposes other than those listed in a Medication Guide. You can ask your pharmacist or healthcare provider for information about ENTYVIO that is written for health professionals.

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For more information, go to www.ENTYVIO.com or call 1-877-TAKEDA-7 (1-877-825-3327).

COMMON CAUSES OF A FLARE

NOT EVERYONE FLARES UP IN RESPONSE TO THE SAME TRIGGERS. LEARN WHICH ONES MIGHT SPELL TROUBLE FOR YOU.

By Sonya Collins Reviewed by Neha Pathak, MD, WebMD Lead Medical Editor

The triggers that cause inflammatory bowel disease (IBD) flares can vary from one person to the next. At first, it might be hard to figure out what exactly is triggering you.

"If you've just been diagnosed with Crohn's or colitis, you may not understand what's causing your flares," says Edward V. Loftus Jr., MD, a gastroenterologist at Mayo Clinic in Rochester, MN. "But you'll gain more insight over time."

If the cause of your flares is still a mystery, consider some of these common culprits.

CIGARETTES

If you haven't kicked the habit yet, a diagnosis of IBD—especially Crohn's disease—is all the reason you need. "A patient with Crohn's who smokes is twice as likely to have a flare, require hospitalization, or require surgery than someone who doesn't smoke or who quit," Loftus says. (There aren't studies that show the same thing about ulcerative colitis, but of course, that's no reason to keep smoking.)

NSAIDs

Over-the-counter painkillers called nonsteroidal anti-inflammatory drugs (NSAIDs) don't agree with some people who have IBD. Ibuprofen and naproxen are a couple of examples. For headaches and other pains, try acetaminophen instead.

ANTIBIOTICS

These infection-fighting drugs kill bad bacteria. But sometimes, they kill helpful bacteria as well. "Antibiotics deplete some of the good bacteria in your colon and allow overgrowth of a bad bacteria called Clostridium difficile," Loftus explains. An infection with this bad microbe can trigger IBD symptoms. Now, you might have to take antibiotics at some point. But if you start to have a flare, your doctor might want to test you for Clostridium difficile.

NOT TAKING YOUR MEDICINE

Once your condition is stable, you may think you don't need your medicine. But if you stop taking it, you can find yourself in a flare. "That's actually one of the most common causes of flares," Loftus says. It's simple: If you take your medication, you'll be less likely to have a flare.

FOOD

It can be tricky to figure out exactly which foods might set you off. In general, stick to a healthy diet and steer clear of junk food. "Less sugar, less grease," Loftus says. "We know these can be inflammatory and make you gassy and bloated."

STRESS

It may be unavoidable sometimes, but stress does spark flares in some people. You don't have to eliminate all the stress from your life, and you couldn't even if you tried. You just need an outlet for it.

"It can be whatever works for you—taking a walk, talking to a therapist or a priest, prayer, meditation or yoga—whatever helps reduce your stress," Loftus says. Just make sure you're not turning to unhealthy habits or triggers—like smoking or junk food—to relieve stress.

ASK THE EXPERT

Here are some questions you might want to ask your doctor about flares.

- Could something besides IBD be causing my symptoms?
- How will we know if I need to change my medication?
- When are the symptoms of a flare an emergency?
- How can I manage a flare on my own?

LIVING WITH ULCERATIVE COLITIS

OVER A DECADE IN, I'M NOT JUST SURVIVING, I'M THRIVING

By Adam Scheuer Reviewed by Neha Pathak, MD, WebMD Lead Medical Editor

When abnormal health symptoms slowly creep up on you over a long period of time, your memory of what's normal starts to fade. The brain is so good at getting used to things. But at age 27, symptoms I didn't think were a big deal started to be a big deal. I'd been having some stomach cramping and digestive issues, but they got bad enough that I couldn't function. I was spending more time in the bathroom than anywhere else and bleeding out of an area I shouldn't have been. I'd finally reached a point where I knew things weren't normal. It was time to see a doctor.

Going into my colonoscopy appointment, I had no clue what I was facing. When my gastroenterologist told me I had ulcerative colitis [UC], it took a long time to wrap my head around the fact that what I was actually dealing with was a lifelong disease. And I didn't know anything about UC. Truth be told, most of us don't research things until they affect us.

Figuring out the right treatment for me was more or less a disaster. I ran

the gamut from basic anti-inflammatory medications all the way up to biologics and immune-suppressing medications over the course of a year, and I dealt with adverse reactions to most of them. The physical and mental toll that took on me was huge. Because things were getting more and more severe, the doctor recommended I have my colon removed.

At the same time, I met a family friend whose daughter also had UC. She'd once been in almost exactly the same situation as I was and had taken all the same







ADAM'S TIPS

- + Be as open as you can. Secrets create stress. Start with close friends or family and let people in on your challenges.
- + Find your doctor fit. Try out different doctors. If you don't trust your doctor, it's going to be very hard to have a lifelong relationship and take their advice.
- + Talk to others with UC. Knowing you're not alone can help you feel better. There are thousands of IBD/UC groups online.

medications. But instead of surgery, she decided first to change the food she was eating, simple as that. The day I met with her to hear more about her lifestyle changes, she had just completed a half marathon. I was amazed. I wanted to look and feel that great.

So I overhauled my diet. I removed a lot of dairy products and carbs from my daily meals and ate more proteins, fruits, and vegetables. I didn't eat bread or potatoes or drink alcohol for 6 ½ years! And things improved and have continued to improve ever since. I haven't had to take any maintenance medications for over 10 years. I still have the occasional flare-up that requires steroid treatment for a few weeks, but on the whole, making major changes to my food choices has helped me gain control over my symptoms.

The experience of getting very few answers from doctors about my treatments and their side effects lit a fire under me. I put up some photos and started a website: IHaveUC.com. I wanted to see if other people had dealt with similar medication side effects. It didn't take long before millions of people a year were visiting the website and communicating with each other.

And then it turned into what it is now: a platform for thousands of people with UC worldwide. We send out newsletters, conduct surveys, and connect people with research on the condition. UC symptoms can be terrible, but I firmly believe that interaction with each other is crucial for beating this disease.



THE BENEFITS OF EXERCISE

HOW MOVING YOUR BODY CAN HELP YOU HEAL

By Rachel Reiff Ellis

Reviewed by Neha Pathak, MD, WebMD Lead Medical Editor

Regular exercise is critical for good health. If you feel like your IBD symptoms get in the way of workouts, talk to your doctor about ways you can get it in safely.

"Exercise can help people with IBD in particular because it theoretically may decrease inflammation and therefore promote healing of the gut," says Erica J. Brenner, MD, pediatric gastroenterologist at UNC Health in Chapel Hill.

Fitting a fitness routine into your life can help you thrive with IBD in these key ways:

LESS STRESS

When you're under stress, it can kick your IBD into high gear. "There's emerging evidence that stress may have a negative effect on the disease course and even trigger flares," Brenner says. Exercise—any kind, from yoga to walking to aerobics—is a proven stress-buster. You'll boost your mood, quiet your mind, and help your body fight inflammation with a fitness routine.

LOWER WEIGHT

Carrying excess weight can increase IBD symptoms. Moving your body more may help you shed extra pounds that could be contributing to flares. "Exercise can decrease body fat, and body fat has been shown to increase inflammation in the intestine," Brenner says. Talk to your doctor about what your goal weight should be and how to get there.

IMPROVED MENTAL HEALTH

IBD can tax you not only physically but mentally. Depression and anxiety often come along with other IBD symptoms. Exercise releases "feel-good" hormones called endorphins into your bloodstream and reduces feelings related to depression and anxiety. Try to get 30 minutes of movement three to five times a week for the best effect.

BETTER BONE HEALTH

Studies show regular exercise

EXERCISE DOS AND DON'TS

Erica J. Brenner, MD, shares tips for working out safely.

DO talk to your doctor about the frequency and intensity with which you should exercise.

DON'T exercise during a flare. Concentrate on resting and recovering and postpone exercise until you feel well enough to work out.

DO start small and listen to your body.

DON'T get dehydrated. Drink plenty of water!

increases bone density, which makes for stronger bones. That's especially important when you have IBD, Brenner says. "People with IBD may have lower bone density both because of the disease itself and as a side effect of certain IBD medications such as steroids." Weight-bearing and resistance exercises are best for building up bone strength.

YOUR WHOLE **BODY AND IBD**

SYMPTOMS YOU MIGHT HAVE OUTSIDE YOUR DIGESTIVE TRACT

By Rachel Reiff Ellis

Reviewed by Neha Pathak, MD, WebMD Lead Medical Editor

When you think of IBD symptoms, you probably think of time spent in the bathroom dealing with the direct results of an inflamed digestive system. But other parts of your body are affected, too.

"We think the immune system in people with IBD is prone to developing an abnormal reaction to healthy tissue," says Alan C. Moss, MD, interim chief of the Department of Gastroenterology at Boston Medical Center. "Mostly the intestines, but this reaction can also affect the liver, skin, eyes, and joints in some people."

YOU MAY DEAL WITH:

Joint pain and swelling. Arthritis is the most common symptom of IBD outside the digestive system. It happens in about 20% of people with the condition. If you have Crohn's disease, that percentage goes up to about 40%.

"People with IBD can develop joint pain and/or inflammation in both skeletal joints and large joints, such as the knees and elbows," Moss says. Typically, any joint symptoms you have will get better when your digestive symptoms do. Skin issues. Skin disorders are the next most common nondigestive complication. You could have:

- Ervthema nodosum: tender red bumps on the shins and ankles
- Pyoderma gangrenosum: skin blisters that can become chronic ulcers
- Skin tags: small, thick flaps of skin, usually around the anus
- Anal fissures: tiny tears in the lining of your anal canal that can crack and bleed
- Canker sores: mouth ulcers that tend to crop up during flares

These symptoms can be a direct result of IBD or side effects of IBD medication. "Some treatments for IBD, such as steroids or anti-TNFs, can

have adverse effects on the skin, such as eczema or skin thinning," Moss says.

Eye disease. The inflammation you get in your gut can affect your eyes as well. Your symptoms will depend on which part of the eye is swelling. "Up to 10% of patients with IBD have inflammation of the various layers of the eye, which can cause red, dry, and itchy eyes," Moss says.

You might deal with swelling in the iris (uveitis), the whites of your eye (scleritis), the cornea (keratopathy), or other tissues of the eye. Your eyelids can also swell (blepharitis). Moss says it's important to get any eye symptoms checked by a doctor because without treatment, you're at risk of having impaired vision. Bone loss. Although you won't feel bone loss unless you break a bone,

Moss says up to 40% of people with IBD will have weakened bones as a result of their disease or the medications they take.

"We recommend screening with bone density testing in patients at risk, such as those with frequent steroid courses," he says.





Need help with your Crohn's disease or ulcerative colitis?

Talk with us.

Our IBD Help Center is one of many free services provided by the Crohn's & Colitis Foundation. Contact us and receive personalized guidance and support. We'll help you manage your IBD through every step of your journey.

The IBD Help Center is available M-F, 9:00 AM to 5:00 PM ET. We provide help in several languages!

- Call toll-free: 888-694-8872
- E-mail: info@crohnscolitisfoundation.org
- Learn more: crohnscolitisfoundation.org

