

No.1/September 2011

**SMART+  
STRONG** **MEDIA  
PLANET**

# HEPATITIS C AWARENESS

**1 IN 33  
BABY BOOMERS  
HAVE HEP C.  
DO YOU?**

## **SEX, DRUGS AND ROCK 'N' ROLL**

**Did you really** leave your past behind?

Check yourself  
Why you should  
find out if you're  
living with hep C



Ink matters  
Does your tattoo  
put you at risk  
for the virus?



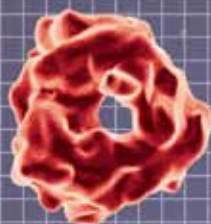
Get cured  
New treatments  
available for  
hepatitis C

From the editors of  
hepmag.com



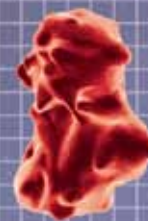
# Our Target: Hepatitis C

POTENTIAL TARGET:



HEPATITIS C POLYMERASE

POTENTIAL TARGET:



HEPATITIS C PROTEASE

HEPATITIS C  
VIRUS



# Our Focus: Patients

Genentech is committed to rigorous and groundbreaking science. For more than 30 years, Genentech has been using innovative science to develop breakthrough medicines for people with serious or life-threatening diseases such as hepatitis C. We continue to investigate new approaches to the treatment of patients with hepatitis C and have multiple potential medicines in development.

**Genentech**  
*A Member of the Roche Group*

## EDITOR'S LETTER

More than two thirds of people **living with hepatitis C** were born between 1946 and 1965 and were likely infected in the 1960s, '70s and '80s.



# A simple test to save your life

**H**as your doctor checked you for a “silent killer”—a disease that rarely causes symptoms and yet claims the lives of thousands of Americans a year? If you’re thinking diabetes, heart disease, breast cancer or prostate cancer, chances are good you’re getting all the necessary poking and prodding from your health care provider. But what about a virus that is silently causing potentially fatal liver disease in one of every 33 baby boomers and one in seven African Americans? Been tested for that? Probably not.

The virus in question is hepatitis C, an infection that most Americans don’t know about and most health care providers don’t understand. This helps explain why an astonishing 75 percent of those living with hepatitis C do not know they’re infected with the virus.

Where we are: Roughly 1 percent of U.S. residents—up to 3.9 million people; nearly four times the number of people living with HIV—are believed to be chronic carriers of the hepatitis C virus (HCV). Though only a percentage of them will develop liver failure or liver cancer in their lifetimes, hep C remains a leading cause of liver transplants in the United States and is currently killing 12,000 Americans a year.

## Where we’re headed

During the next 10 to 20 years, the number of people with advanced liver disease is expected to quadruple and the death rate will likely triple. What’s more, total medical costs for

people living with hepatitis C could more than double over the next two decades, from \$30 billion to \$80 billion per year. And with so many baby boomers unaware that they have hep C, they’ll be carrying the possibility of high-cost treatment into their Medicare years.

The coming explosion in hepatitis C-related disease and death isn’t a result of an increase in new cases. In fact, the number of new infections has sharply decreased during the past two decades. What will cause the explosion is that thousands of people living with the virus—probably unaware they even have it—will soon start showing signs of an infection that slowly attacks the liver, over the course of 20 to 30 years, without obvious symptoms of illness.

More than two thirds of people living with hepatitis C were born between 1946 and 1965 and were likely infected in the 1960s, '70s and '80s. Transmission requires nothing more than a tattoo or a blood transfusion or a fleeting experiment with an injected (and possibly snorted) recreational drug, to name a few risk factors. And while the hazy, care-free days of yesteryear are a distant memory to many baby boomers, a sleeping giant of a disease is set to awaken.

But it’s not all gloom and doom. In fact, it’s quite the contrary. Hepatitis C can be cured, though treatment is best started before serious liver scarring develops. Two new drugs, designed specifically to attack the hepatitis C virus, were approved by the U.S. Food and Drug Administration (FDA) in May. When they’re



**Tim Horn**  
Editor-in-chief, hepomag.com  
PHOTO: KEVIN MCDERMOTT

“During the next 10 to 20 years, the number of people with advanced liver disease due to hepatitis C is expected to quadruple and the death rate will likely triple.”

taken in combination with two older medications, even people with the hardest-to-treat form of the virus stand a 70 percent chance of clearing hep C after a year of treatment.

The future looks even brighter. At least four dozen virus-attacking and immune system-boosting drugs are being developed for people living with hepatitis C. Not only could new combinations of these drugs push cure rates near the 100 percent range, but they might also do away with the need for older drugs, which sometimes come with significant side effects.

All of this is to say that one simple concept can help prevent liver failure, liver cancer and death in tens of thousands of people who have hepatitis C and don’t know it: awareness. Learn the basics of hepatitis C and how it is transmitted. Know that curative treatment is available. And above all, get tested for the hepatitis C virus.

To borrow a familiar clarion call that continues to motivate communities of people living with HIV/AIDS: “Silence = Death.” Mediaplanet and Hepmag.com are pleased to bring you the facts about hepatitis C—information about the infection and its risk factors, the simplicity of testing, and the availability of lifesaving treatment. We hope to remove both silence and death from the equation. In their place, we offer awareness, which will provide a lifeline for the thousands of people living with hepatitis C—especially those who don’t yet know it.

**TIM HORN**

editorial@hepmag.com



## WE RECOMMEND



**Randy Dietrich,**  
Founder of the  
Caring Ambassadors  
Hepatitis C Program,  
shares his personal  
journey to a cure.

PAGE 10

“I started doing everything you’ve heard of [to get healthy] but never wanted to do.”

# MEDIA PLANET

HEPATITIS C AWARENESS  
1ST EDITION, SEPTEMBER 2011

**Publisher:** Paul Stover  
paul.stover@mediaplanet.com  
**Business Developer:** Terence Cooke  
terence.cooke@mediaplanet.com  
**Designer and sub-editor:** Missy Kayko  
missy.kayko@mediaplanet.com  
**Managing Director:** Geraldine Delacuesta  
geraldine.delacuesta@mediaplanet.com

**In collaboration with Hepmag.com:**  
**Editorial Director:** Regan Hofmann  
**Publisher:** Megan Strub  
**Editor-in-Chief:** Tim Horn  
**Managing Editor:** Jennifer Morton  
**Editors:** Trenton Straube, Laura Whitehorn, Cristina González

**Distributed within:**  
USA Today, September 2011  
All editorial content is ©2011 Hepmag.com/CDM Publishing LLC and has been licensed for use in the publication and did not involve USA TODAY or its editorial department.



FOLLOW US ON FACEBOOK & TWITTER!  
[facebook.com/MediaplanetUSA](https://www.facebook.com/MediaplanetUSA)  
[twitter.com/MediaplanetUSA](https://twitter.com/MediaplanetUSA)  
[facebook.com/hepmag](https://www.facebook.com/hepmag)  
[twitter.com/hepatitismag](https://twitter.com/hepatitismag)

Mediaplanet’s business is to create new customers for our advertisers by providing readers with high-quality editorial content that motivates them to act.

THE BASICS

# Everything you need to know about hepatitis C

**Why get tested for hepatitis C? Because you love your liver. If you've never thought about your liver in these terms, you probably should.**

Your liver processes everything you ingest; it clears toxins, stores nutrients, helps digest food and regulates many bodily functions that keep you ticking and kicking from day to day.

So taking care of your liver is worth the effort. You probably know that too much alcohol can damage your liver. But you might not know about the other most common cause of liver damage: viral hepatitis.

Hepatitis means inflammation of the liver (*hepa* is Greek for liver; *itis* means inflammation). Various things can cause hepatitis, including viruses. Around the globe, 130 million to 200 million people have the hepatitis C virus (HCV). In this country, up to 3.9 million people are living with HCV—but about 75 percent of them don't know they have it.

**Two in three**

People born between 1946 and 1965 make up about two thirds of the Americans living with hepatitis C. Because the virus spreads through blood-to-blood contact, the main culprits for these baby boomers include experimentation with injecting drugs, and the fact that the blood supply was not thoroughly tested for hepatitis C until 1992.

In fact, injecting drugs is the greatest single risk factor for HCV. So people who experimented with drugs—even as infrequently as once or twice—in their youth might be carrying the hepatitis

virus into their Medicare years. (So might those who have done so more recently.)

And it's not just IV-drugs that pose the risk. "Intranasal cocaine use also contributes," says David Thomas, MD, director of the Division of Infectious Diseases at Johns Hopkins Department of Medicine. Sharing non-IV drug equipment could transmit HCV, because drugs like cocaine, heroin and meth can damage tiny blood vessels in the nose, resulting in microscopic traces of blood being deposited onto the tip of the straw or rolled-up bill being used.

Boomers with no history of drug use could be at risk of HCV infection too. Medical equipment, particularly vaccination syringes and needles, was often reused from one patient to the next, so one patient's IV-drug history could cause the next patient's HCV infection. That's one reason why Vietnam era vets constitute one of the largest groups of people living with HCV.

But HCV risk is not limited to baby boomers. In fact, 18,000 new infections occurred in 2008 alone, according to estimates from the U.S. Centers for Disease Control and Prevention.

Anyone who received blood or plasma transfusions, or an organ transplant, before regulations went into effect in 1992 could be at risk for HCV. Similarly, many people with hemophilia contracted HCV before new methods of developing blood products such as clotting factors went into effect in 1987. People on long-term dialysis for kidney disease may be at risk for HCV too, if dialysis centers don't practice strict infection control procedures. Some cases have also occurred at dental

and endoscopy clinics with poor infection control practices.

HCV can also be contracted sexually, especially when there is contact with blood, or through tattooing or piercing if sterile procedures aren't followed. But, Thomas says, "sexual transmission among stable heterosexual partners of chronically infected persons doesn't occur frequently. It is possible that, as with HIV and other infections, transmission is more likely from someone with acute HCV than chronic infection." That's because there is more HCV in the blood shortly after infection than later on, when the disease becomes chronic. The risk of sexual transmission is generally higher among people living with HIV.

Prisoners and former prisoners are, in general, more likely to have hepatitis C than their peers who have never been incarcerated. Children born to women with chronic hepatitis C are also at risk.

Still not sure whether you're at risk? You don't need to guess. Read on for the good news about how easy it is to be tested for HCV—and the benefits of knowing your status.

**The complexity of C**

Unless you are tested for HCV, it is easy to be unaware that you have it. Typically, symptoms of infection don't appear for years.

Up to 25 percent of those infected naturally clear the hepatitis C virus from their bodies in about six months, with no liver damage or illness. Members of another smaller group fail to clear the virus even though they never experience any progression or liver disease. Their blood tests do, however, continue to show HCV infection.

**"In the United States, up to 3.9 million people are living with HCV—but about 75 percent of them don't know they have it."**

But in the remaining 60 to 70 percent, chronic liver disease occurs. Five percent to 20 percent of those infected develop cirrhosis (serious liver scarring) during a period of 20 to 30 years, and 1 percent to 5 percent will die from cirrhosis or liver cancer. This may sound insignificant, but it translates into about 12,000 deaths a year.

People who contract hepatitis might have no symptoms whatsoever for many years—or non-specific ones such as fatigue—until the liver damage becomes severe enough to cause health problems.

The fact is, awareness matters. If those tens of thousands of undetected cases of hep C contracted years ago continue to go undiagnosed and untreated, by 2020 liver failure rates due to the virus could exceed 140,000, with something like 17,000 cases of liver cancer.

"Not testing for hepatitis," Thomas says, "is like removing gas gauges from cars and waiting for 'symptoms' before you fill up your tank."

Knowledge isn't just power; it may be life itself.

**LAURA WHITEHORN**  
editorial@hepmag.com



NEWS IN BRIEF

Not just C

**Be vigilant about these two other hepatitis infections that strike the liver.**

Hepatitis A virus sickens thousands of people in the United States every year. It's spread through contact with even microscopic amounts of contaminated feces—for example, through eating raw or uncooked food handled by someone who has the virus. Certain sexual acts are another common route of transmission.

Hep A is always an acute infection. Though it can make you very sick, hep A goes away on its own after a few weeks. Bed rest, lots of fluids and over-the-counter pain relievers can help along the way.

Hepatitis B can also become a chronic infection like hep C. It is carried by up to 1.4 million people in the United States, including one in 12 Asian Americans, and it causes 2,000 to 4,000 deaths annually. Yet 65 percent of those with the infection don't know they have it.

If you've ever injected drugs, had unprotected sex or emigrated from countries where hep B is common, get tested. And if you're positive, get care—effective treatments are available.

While there is no vaccine currently available for hep C, you can get vaccinated against hep A and B. The shots are cheap and widely available, and they offer lifelong protection. Learn more by visiting [hepmag.com](http://hepmag.com).

**TIM HORN**  
editorial@hepmag.com

## GETTING TESTED



## DON'T MISS

## Are you at risk?

People who have chronic hepatitis C—and are aware of it—can take steps to slow disease progression and help the liver resist damage. For example, it's well established that people who stop drinking alcohol and maintain a healthy body weight in the face of a hep C diagnosis can greatly reduce their risk of developing liver disease. Regular liver health monitoring and treatment can also help people living with the virus stay healthy.

Not sure if you should be tested? It's probably best to at least discuss it with your doctor if any of the following apply to you:

- You are a baby boomer born between 1946 and 1965
- You had a blood transfusion or organ transplant before 1992
- You used a blood clotting factor made before 1987
- You have ever received long-term kidney dialysis
- You have ever experimented with injected or snorted drugs, even if just once or twice
- You have ever gotten a tattoo or piercing in a nonprofessional setting
- You have had multiple sexual partners, or sexual contact with a person living with hep C
- You have symptoms of hepatitis: fever, fatigue, dark urine, clay-colored stool, abdominal pain, loss of appetite, nausea, vomiting, joint pain or yellowing of the skin or eyes (jaundice)

For more info on risk of transmission, visit [hepmag.com](http://hepmag.com).

## Testing for the hepatitis C virus has never been more important—or easy.

# Know your status

**Pat Dinanno awoke early one morning in May 1987 with a wave of instantly recognizable pain: She was in labor. Dinanno, 31, and her husband Charles were about to welcome their third child into the world.**

Delivery complications arose, but nothing a skilled OB/GYN team and a few pints of blood couldn't fix. Mother and daughter recovered quickly and were discharged a few days later, back to their home in Beaufort, South Carolina.

Flash forward nearly two decades. "In 2006, I went to a dermatologist about a suspicious mole," Dinanno recalls. "He did a biopsy and took blood. It turned out the mole wasn't anything to worry about. He did, however, say that my liver [function] tests were concerning and that I'd best check in with my regular doctor."

Four weeks and a few more rounds of blood tests later, Dinanno's grim-faced doctor delivered the diagnosis: active hepatitis C virus (HCV) infection. "It just didn't make sense," she remembers. "Wasn't hepatitis a problem for drug users? But this wasn't me! I was shocked and devastated."

It turned out that Dinanno's blood transfusion during delivery was the cause. Back in 1987, blood banks were checking for HIV, the virus that causes AIDS—but not for hepatitis C. The first test to screen blood supplies for HCV wasn't approved until 1990. "I didn't have

any symptoms," Dinanno says, and neither the hospital nor the blood bank ever sent a notice alerting her to the possibility of infection. "Next thing we all knew," she adds, "I was dealing head-on with a disease I never thought I'd be dealing with."

### Not an isolated case

Dinanno's story isn't unusual, but receiving her HCV diagnosis before she'd developed advanced liver scarring makes her one of the lucky ones. According to estimates from the U.S. Centers for Disease Control and Prevention (CDC), only 30 percent of people living with hep C are aware of their infection. Many won't find out until they are very ill and their livers have been damaged to the point that treatment may not be helpful.

How can such a damaging disease go undetected by so many? Reason No. 1: There are often no symptoms, at least until liver disease becomes severe. When early symptoms do arise, they tend to be nonspecific—fatigue, feeling blah, and other seemingly innocuous problems—so they're easy to overlook.

Presently, hep C testing is recommended only for those with known risks for the virus—and who identify themselves as such to health care providers (see sidebar). Meanwhile, the CDC recommends testing all adults for HIV, a virus that is far less prevalent in the United States.

Whether the U.S. government plans to recommend universal

testing for hep C—and, perhaps more important, whether it will spend money on testing—isn't clear. A viral hepatitis "action plan" released by the Department of Health and Human Services (HHS) in May 2011 lists steps to create consistent testing guidelines for doctors, but it says nothing about routine testing. And while HHS hopes to make hep testing a standard medical procedure under the Affordable Care Act, a.k.a. health care reform, signed into law by President Obama in March 2010, there is no mention of actual dollar amounts that the government may need to support this crucial public health initiative.

### Testing made simple

While government agencies and other experts sort out how to get more people tested for hep C, it's actually pretty simple for you to find out whether you've been exposed to the virus—and whether you're still actively infected and at risk for serious liver disease.

The first step is a standard hep C antibody test, in which blood is collected by a health care provider or technician and analyzed by a laboratory, with results available in one to two weeks. If you are eager to learn your results, there are also rapid assays, including OraQuick's HCV Rapid Antibody Test, which require no more than a pinprick of blood and a 20-minute wait time for results. With rapid test results, health care providers can inform patients on the spot whether

they've been exposed to hep C—and take the opportunity to share important information with those who might not keep follow-up appointments to learn whether or not they have the virus.

If the antibody test is positive, a follow-up test will look for HCV genetic material in a blood sample. Between 15 and 25 percent of those exposed to hep C are able to clear the virus on their own, meaning that they were infected at some point but it's no longer a health concern—and they can no longer transmit hepatitis C to others.

Follow-up testing typically involves what's called a PCR. This blood test can only be ordered by a health care provider, so it's very important to connect with a doctor—if you don't have one, be sure to get a referral from the site that conducted your antibody test.

If both the antibody and PCR test results are positive, a diagnosis of chronic hep C is made. From there, additional tests are ordered, usually by a specialist, to determine if there's damage to the liver and whether or not treatment is necessary.

"Fortunately I have one of the easier-to-treat types of the virus, and my doctor says I'm a good candidate for treatment," Dinanno says. "While this has really been a nightmare, I'm really glad I found out when I did. I have options, which may not have been the case if I didn't find out until I was really sick."

TIP

2

GET TESTED  
AND LEARN  
THE RESULTS

TIM HORN

editorial@hepmag.com

Why do you want a greater chance  
to be cured of the hepatitis C virus?

# “TO MOVE FORWARD”

No matter why you want to fight chronic hep C, there's promising news for adults with genotype 1 who have been treated before. VICTRELIS combination therapy offers a greater chance of cure for some patients versus treatment with peginterferon alfa and ribavirin (peg/riba) alone. "Cure" means you have cleared the hep C virus (it is not detectable in your blood 6 months after completing all treatment).

**In clinical studies with patients who have been treated before, the number who cleared the virus nearly tripled when VICTRELIS was added to peg/riba.**

- 59% to 66% of patients cleared the virus with VICTRELIS plus peg/riba versus 23% with peg/riba alone.

The total time on chronic hep C medicines may be shortened for some patients. Treatment can range from 36 weeks to 48 weeks. Before and during treatment, your doctor will do blood tests. These tests will check for side effects and also tell you early on how well treatment is working and how long you may need to be on it.

**The time is now.  
Talk to your doctor today.**

Not actual patients.

VICTRELIS is a prescription medicine used with the medicines peginterferon alfa and ribavirin (peg/riba) to treat chronic (long-lasting) hepatitis C genotype 1 infection in adults with stable liver problems who have not been treated before or who have failed previous treatment. **Do not take VICTRELIS alone.**

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

## Important Safety Information

VICTRELIS plus peg/riba may cause birth defects or death to your unborn baby. If you are pregnant or your sexual partner is pregnant or plans to become pregnant, do not take these medicines. You or your sexual partner should not become pregnant while taking VICTRELIS plus peg/riba and within 6 months after treatment is over.

- Females and males must use 2 forms of birth control during treatment and for 6 months after treatment with VICTRELIS plus peg/riba. Hormonal forms of birth control, such as birth control pills, vaginal rings, implants and injections, may not work as well during treatment with VICTRELIS and you may become pregnant.
- Females must have a pregnancy test before starting treatment with VICTRELIS plus peg/riba, every month while being treated, and every month for 6 months after all treatment is over. If you or your female sexual partner become pregnant during this time, tell your doctor right away.

Do not take VICTRELIS if you take certain medicines. **VICTRELIS may cause serious side effects when taken with certain medicines. Tell your doctor about all the medicines you take**, including prescription and non-prescription medicines, vitamins, and herbal supplements. VICTRELIS and other medicines may affect each other, causing serious or life-threatening side effects, or affecting the way VICTRELIS and your other medicines work. Do not start taking a new medicine without telling your doctor or pharmacist. **For a listing of medicines that you should not take with VICTRELIS, please see the Medication Guide on the adjacent page.**

## Important Safety Information (continued)

**Before you take VICTRELIS, tell your doctor if you** have blood problems like anemia (low red blood cell count), have liver problems other than hep C, have human immunodeficiency virus (HIV) or any other immunity problems, had an organ transplant, plan to have surgery, have any other medical condition, or are breastfeeding.

**VICTRELIS may cause serious side effects, including** blood problems. VICTRELIS can affect your bone marrow and cause low red blood cell and low white blood cell counts. In some people, these blood counts may fall to dangerously low levels. If your blood cell counts become very low, you can get anemia or infections.

**The most common side effects of VICTRELIS with combination therapy include:** tiredness, nausea, headache, and change in taste. Tell your doctor about any side effect that bothers you or that does not go away. There may be other side effects of VICTRELIS. For more information, ask your doctor or pharmacist.

**Call your doctor for medical advice about side effects. You are encouraged to report negative side effects of prescription drugs to the FDA. Visit [www.fda.gov/medwatch](http://www.fda.gov/medwatch), or call 1-800-FDA-1088.**

For more information on VICTRELIS, please see the Medication Guide on the adjacent page.



Copyright © 2011 Schering Corp., a subsidiary of Merck & Co., Inc.  
All rights reserved. Printed in USA INFC-1011433-0000 08/11



[victrelis.com](http://victrelis.com)

## MEDICATION GUIDE

### VICTRELIS™ (vic-TRÉL-ĭs) (boceprevir)

Read this Medication Guide before you start taking VICTRELIS, and each time you get a refill. There may be important new information. This information does not take the place of talking with your doctor, nurse or physician assistant (healthcare provider) about your medical condition or your care.

VICTRELIS is taken along with peginterferon alfa and ribavirin. You should also read those Medication Guides.

#### **What is the most important information I should know about VICTRELIS?**

VICTRELIS, in combination with peginterferon alfa and ribavirin, may cause birth defects or death of your unborn baby. If you are pregnant or your sexual partner is pregnant or plans to become pregnant, do not take these medicines. You or your sexual partner should not become pregnant while taking VICTRELIS, peginterferon alfa, and ribavirin combination therapy and for 6 months after treatment is over.

- Females and males must use 2 forms of birth control during treatment and for 6 months after treatment with VICTRELIS, peginterferon alfa, and ribavirin. Hormonal forms of birth control, such as birth control pills, vaginal rings, implants and injections, may not work as well during treatment with VICTRELIS. You may get pregnant while using these birth control methods while on VICTRELIS. Talk to your healthcare provider about other forms of birth control that may be used during this time.
- Females must have a pregnancy test before starting treatment with VICTRELIS combination therapy, every month while being treated, and every month for 6 months after treatment with VICTRELIS, peginterferon alfa, and ribavirin is over.
- If you or your female sexual partner becomes pregnant while taking VICTRELIS, peginterferon alfa, and ribavirin or within 6 months after you stop taking these medicines, tell your healthcare provider right away. You or your healthcare provider should contact the Ribavirin Pregnancy Registry by calling 1-800-593-2214. The Ribavirin Pregnancy Registry collects information about what happens to mothers and their babies if the mother takes ribavirin while she is pregnant.
- **Do not take VICTRELIS alone to treat chronic hepatitis C infection.** VICTRELIS must be used with peginterferon alfa and ribavirin to treat chronic hepatitis C infection.

#### **What is VICTRELIS?**

VICTRELIS is a prescription medicine used with the medicines peginterferon alfa and ribavirin to treat chronic (long-lasting) hepatitis C infection in adults who have not been treated before or who have failed previous treatment.

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

#### **Who should not take VICTRELIS?**

See “What is the most important information I should know about VICTRELIS?”

#### **Do not take VICTRELIS if you:**

- take certain medicines. **VICTRELIS may cause serious side effects when taken with certain medicines.** Read the section “What should I tell my healthcare provider before taking VICTRELIS?”

Talk to your healthcare provider before taking VICTRELIS if you have any of the conditions listed below.

#### **What should I tell my healthcare provider before taking VICTRELIS?**

#### **Before you take VICTRELIS, tell your healthcare provider if you:**

- have certain blood disorders such as anemia (low red blood cell count).
- have liver problems other than hepatitis C infection.
- have human immunodeficiency virus (HIV) or any other immunity problems.
- have had an organ transplant.
- plan to have surgery.
- have any other medical condition.
- are breastfeeding. It is not known if VICTRELIS passes into breast milk. You and your healthcare provider should decide if you will take VICTRELIS or breastfeed. You should not do both.

**Tell your healthcare provider about all the medicines you take,** including prescription and non-prescription medicines, vitamins, and herbal supplements.

VICTRELIS and other medicines may affect each other, causing side effects or affecting the way VICTRELIS and your other medicines work. Do not start taking a new medicine without telling your healthcare provider or pharmacist.

#### **Do not take VICTRELIS if you take:**

- alfuzosin hydrochloride (UROXATRAL®)
- anti-seizure medicines:
  - carbamazepine (CARBATROL®, EPITOL®, EQUETRO®, TEGRETOL®, TEGRETOL® XR, TERIL™)
  - phenobarbital
  - phenytoin (DILANTIN®)
- cisapride (PROPULSID®)
- drospirone-containing medicines, including:
  - YAZ®, YASMIN®, ZARAH®, OCELLA®, GIANVI®, BEYAZ®, SAFYRAL™
- ergot-containing medicines, including:
  - dihydroergotamine mesylate (D.H.E. 45®, MIGRANAL®)
  - ergonovine and methylergonovine (ERGOTRATE®, METHERGINE®), ergotamine
  - ergotamine tartrate (CAFERGOT®, MIGERGOT®, ERGOMAR®, ERGOSTAT, MEDIHALER ERGOTAMINE, WIGRAINE, WIGRETTES)
- lovastatin (ADVICOR®, ALTOPREV®, MEVACOR®)
- midazolam (VERSED), when taken by mouth
- pimozide (ORAP®)
- rifampin (RIFADIN®, RIFAMATE®, RIFATER®, RIMACTANE)
- sildenafil (REVATIO®), when used for treating lung problems
- simvastatin (SIMCOR®, VYTORIN®, ZOCOR®)
- St. John’s Wort (Hypericum perforatum) or products containing St. John’s Wort
- tadalafil (ADCIRCA®), when used for treating lung problems
- triazolam (HALCION®)

#### **Tell your healthcare provider if you are taking or starting to take any of these medicines:**

- clarithromycin (BIAXIN®, BIAXIN® XL, PREVPAC®)
- dexamethasone
- efavirenz (SUSTIVA®, ATRIPLA®)
- itraconazole (SPORANOX®)
- ketoconazole (NIZORAL®)
- posaconazole (NOXAFL®)
- rifabutin (MYCOBUTIN®)
- ritonavir (NORVIR®, KALETRA®)
- voriconazole (VFEND®)

**Your healthcare provider may need to monitor your therapy more closely if you take VICTRELIS with the following medicines. Talk to your doctor if you are taking or starting to take these medicines:**

- alprazolam (XANAX®)
- amiodarone (CORDARONE®, NEXTERONE®, PACERONE®)
- atorvastatin (LIPITOR®)
- bepridil (VASCOR)
- bosentan (TRACLEER®)
- budesonide (PULMICORT®, PULMICORT FLEXIHALER®, RHINOCORT®, PULMICORT RESPULES®, SYMBICORT®)
- buprenorphine (BUTRANS®, BUPRENEX®, SUBOXONE®, SUBUTEX®)
- cyclosporine (GENGRAF®, NEORAL®, SANDIMMUNE®)
- desipramine (NORPRAMIN®)
- digoxin (LANOXIN®)
- felodipine (PLENDIL®)
- flecainide (TAMBOCOR®)
- fluticasone (VERAMYST®, FLOVENT® HFA, FLOVENT® DISKUS, ADVAIR® HFA, ADVAIR DISKUS®)
- hormonal forms of birth control, including birth control pills, vaginal rings, implants and injections
- methadone (DOLOPHINE®)
- nifedipine (PROCARDIA®, ADALAT® CC, PROCARDIA XL®, AFEDITAB® CR)
- nicardipine (CARDENE® SR, CARDENE®)
- propafenone (RHYTHMOL, RHYTHMOL SR®)
- quinidine
- salmeterol (ADVAIR® HFA, ADVAIR DISKUS®, SEREVENT®)
- sirolimus (RAPAMUNE®)
- tacrolimus (PROGRAF®)
- voriconazole (VFEND®)
- colchicine (COLCRYS®, Probenecid and Colchicine, COL-Probenecid)

- trazadone (DESYREL®)
- vardenafil (STAXYN®, LEVITRA®)
- warfarin (COUMADIN®)

#### **How should I take VICTRELIS?**

- Take VICTRELIS exactly as your healthcare provider tells you. Your healthcare provider will tell you how much to take and when to take it.
- Take VICTRELIS with food (a meal or light snack).
- VICTRELIS is packaged into single daily-use bottles. Each bottle has your entire day’s worth of medicine. Make sure you are taking the correct amount of medicine each time.
- If you miss a dose of VICTRELIS and it is less than 2 hours before the next dose, the missed dose should be skipped.
- If you miss a dose of VICTRELIS and it is more than 2 hours before the next dose, take the missed dose with food. Take your next dose at your normal time and continue the normal dosing schedule. Do not double the next dose. If you have questions about what to do, call your healthcare provider.
- Your healthcare provider should do blood tests before you start treatment, at weeks 4, 8, 12, and 24, and at other times as needed during treatment, to see how well the medicines are working and to check for side effects.
- If you take too much VICTRELIS, call your healthcare provider or go to the nearest hospital emergency room right away.

#### **What are the possible side effects of VICTRELIS?**

**VICTRELIS may cause serious side effects, including:**

See “What is the most important information I should know about VICTRELIS?”

Blood problems. VICTRELIS can affect your bone marrow and cause low red blood cell, and low white blood cell, counts. In some people, these blood counts may fall to dangerously low levels. If your blood cell counts become very low, you can get anemia or infections.

**The most common side effects of VICTRELIS in combination with peginterferon alfa and ribavirin include:**

- tiredness
- nausea
- headache
- change in taste

Tell your healthcare provider about any side effect that bothers you or that does not go away.

These are not all the possible side effects of VICTRELIS. For more information, ask your healthcare provider or pharmacist.

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

#### **GENERAL INFORMATION ABOUT THE SAFE AND EFFECTIVE USE OF VICTRELIS.**

Medicines are sometimes prescribed for purposes other than those listed in a Medication Guide.

Do not use VICTRELIS for a condition for which it was not prescribed. Do not give VICTRELIS to other people, even if they have the same symptoms that you have. It may harm them.

This Medication Guide summarizes the most important information about VICTRELIS. If you would like more information, talk with your healthcare provider. You can ask your pharmacist or healthcare provider for information about VICTRELIS that is written for health professionals.

For more information, go to [www.victrelis.com](http://www.victrelis.com) or call 1-877-888-4231.

This Medication Guide has been approved by the U.S. Food and Drug Administration.



Schering Corporation, a subsidiary of **MERCK & CO., INC.**, Whitehouse Station, NJ 08889, USA  
Issued: May 2011  
34966400T

Trademarks depicted herein are the property of their respective owners.

Copyright © 2011 Schering Corporation, a subsidiary of **Merck & Co., Inc.** All rights reserved.  
INFC-1011432-0000 09/11



TREATMENT

When hep C treatment is necessary, the odds of **beating the virus** just got more favorable.

# Time for treatment?

**The good news: Not every one living with chronic hep C needs to be treated for the virus. Even more encouraging: When treatment is necessary, the odds of curing the virus are now better than ever.**

This is not to say that hep C treatment is easy. There's a risk of side effects—including flu-like symptoms, fatigue and depression—throughout the six to 12 months of treatment. In turn, treatment decisions—including when to start, which meds to use and whether or not therapy should be stopped—depend on several issues, including...

## Liver health

Up to one in five people with chronic hep C will develop cirrhosis of the liver—severe scarring that can ultimately cause the liver to fail completely. Maintaining a healthy weight and cutting out alcohol consumption can help. So can curing the virus with available treatments. To avoid treating people with hep C who may never develop cirrhosis—or who are progressing slowly and might be safe waiting until meds with fewer side effects are available—doctors look for early signs of liver scarring (fibrosis) and other clues that the disease is likely to worsen.

This requires a biopsy, usually performed by a liver specialist. The site of the biopsy is numbed with a local anesthetic. Next, a needle passes through the skin, then in and out of the liver. "It's not a big deal," says Brian Edlin, MD, of the Center for

the Study of Hepatitis C in New York. "The whole procedure takes about 30 minutes, and most people do fine. I generally recommend biopsies every three to five years."

## Viral genes

There are at least six types of the hepatitis C virus, called "genotypes" because they differ in genetic structure. In the United States, there are three main genotypes: 1, 2 and 3. Knowing your genotype, which requires a simple blood test, is important because it will determine which medications you'll use—and for how long.

People with hep C genotypes 2 or 3, the easiest to cure, take one of the pegylated interferon drugs (Pegasys or Peginteron), which must be injected once a week, plus ribavirin, an oral medication taken twice a day. Treatment generally lasts for six months, and cure rates among those taking these meds for the first time can be as high as 90 percent for genotype 2 and 65 percent or more for genotype 3.

For people with hep C genotype 1, which is the most common and hardest to cure, one of the two newly approved protease inhibitors, Victrelis or Incivek, may be added. Adding either of these important new oral meds has boosted genotype 1 cure rates from five in 10 to seven in 10.

## Human genes

Cure rates are highest among people of Asian descent (75 percent), worst among people of African descent (20 percent to 30 percent) and somewhere in the middle among people

of European descent (50 percent). This is partly because of variations in a human gene known as interleukin-28B (IL-28B) that affects how the interferon drugs work in the body.

Knowing a person's IL-28B type can be useful, Edlin says. "If someone has minimal liver disease and we learn that they have an IL-28B type that may reduce interferon effectiveness, I may recommend waiting for [drug combos that don't require interferon] to come along."

## Are you experienced?

For those with progressive hep C, treatment is a cure-or-bust situation. If therapy doesn't cure the virus—750,000 U.S. residents alone have been treated without success—liver failure and cancer remain a risk. Fortunately for those with genotype 1 hep C who weren't cured with peg-interferon and ribavirin alone, adding a protease inhibitor the second (or third) time around can make a difference. The new drugs have lifted cure rates up to 90 percent, depending on how a person's virus responded to previous treatment and how healthy the liver is before the additional round of therapy.

## Viral load

Health care providers keep a close eye on the amount of hep C virus in blood samples during treatment. For example, if the amount of virus—the "viral load"—is too low to be detected after 12 weeks of treatment for genotype 1 hep C, the drug combo will be continued for a year, as the undetectable viral load

**"Victrelis and Incivek have lifted cure rates up to 90 percent for people who didn't respond favorably to earlier treatment."**

shows that the virus is on the way to being cured. If, however, the virus is detectable at 12 weeks, that's a sign that treatment is unlikely to work and should be stopped. Fortunately for these people, many new drugs are in development.

## Are you ready?

Hep C treatment demands a lot of commitment and preparation. For the best chance of curing the virus, you must take the medications exactly as prescribed—no missing doses. And the side effects of treatment can be debilitating, which can affect your responsibilities at home and at work.

"I always tell patients to consider their support system," Edlin says. "Do you have family and friends you can call upon during treatment? It's important to have someone checking in with you, especially during the beginning of treatment."

Visit [hepmag.com](http://hepmag.com) to get the latest information on hep c treatment.



## TIPS

### Hep C prevention

**These simple steps can help you avoid contracting hepatitis C.**

- 1) Stop or limit injection drug use, if you are currently using. If you can't quit, limit your risk by using a clean, sterile syringe every time and never sharing a rig—including cookers, cottons and water—with anyone else. In areas where needle exchange programs make clean needles available to injection drug users, rates of HCV transmission have been known to fall. If needle exchange is available in your area, take advantage of it.
- 2) Don't share razors, toothbrushes, nail clippers, hair clippers or any other personal hygiene item that could pass blood from one person to another.
- 3) Don't get pierced or tattooed anywhere but at a shop or office licensed by your local health department. Don't get a tat or piercing in prison, where sterile practices are hard to carry out.
- 4) Do practice safer sex. Use a condom every time. This simple step can protect you against other infections, including HIV. And be aware of your own level of risk. Some studies have shown that people with multiple sex partners face a higher risk of contracting HCV. Sex that involves bleeding poses a greater danger of HCV transmission. Play it safe. Why not?

TIM HORN

[editorial@hepmag.com](mailto:editorial@hepmag.com)

[editorial@hepmag.com](mailto:editorial@hepmag.com)

## INSIGHT

TIP

3

GET CARE AND  
TREATMENT IF  
NECESSARY

The founder of the Caring Ambassadors Hepatitis C Program looks back on his journey with the virus, from the day he was diagnosed to the day **he was cured.**

# The road to a cure

**R**andy Dietrich's jaw dropped. Eyes frantically running over the words on the computer screen, Dietrich read "liver failure," "cancer," "death sentence." What was happening to him?

This was in 1999, after routine blood tests showed that Dietrich had elevated liver enzymes. His doctor mentioned the possibility of hepatitis C and suggested he lay off alcohol while waiting for further test results. But Dietrich was 42. He was healthy and energetic and about to be named the president of his company. Turning to search engines to get some quick info, Dietrich was unprepared for what he found. And frightened.

After confirmation he had chronic hepatitis C, Dietrich "lay in bed and cried," he remembers. "Then I got up and thought, 'Did you think your life was always going to be easy?'"

After doing some clear-eyed research on the disease, Dietrich, who lives in Denver, disclosed to his family and his colleagues. He was unsure exactly when he acquired hep C, but a blood transfusion during his college years was the likely culprit.

After meeting with his CEO at Republic Financial Corporation, Dietrich and his colleagues reached two decisions: First, his promotion would be postponed while he was on sabbatical, and second, they would assemble a team of experts to come up with a smart and creative treat-

ment approach.

The four and a half months Dietrich was on sabbatical turned into the beginning of the Caring Ambassadors Hepatitis C Program, a national nonprofit organization focused on education and awareness. With the support of his company, Dietrich was able to gather experts, hear their theories and cull together information to design a treatment approach consistent with his own goals, namely to have good health as long as possible. Taking into account his labs and the fact that there was only a slight chance he'd be able to cure his hep C with the drugs available at the time, Dietrich initially decided to do an all-natural course of therapy.

"I started doing everything you've heard of but never wanted to do," Dietrich says of his regimen, which included cutting all alcohol, red meat and fried foods out of his diet. His plan involved eating a balanced diet, exercising daily and maintaining a busy schedule of holistic appointments: acupuncture, energy healing, massage and chiropractics. During this time, Dietrich remained in constant contact with doctors and carefully went over regular blood work.

In 2006, after eight years on his holistic regimen, Dietrich changed course. He felt he had gotten as physically and mentally prepared as possible and that he was ready to sustain treatment and weather its sometimes significant side effects.

Dietrich received a combination

"I'm a big believer that the No. 1 treatment is diagnosis. Once you've been tested and you know your status, you can stop doing the things that hurt you."



**Randy Dietrich**  
Founder, Caring Ambassadors Hepatitis C Program

pegylated interferon plus ribavirin treatment for 42 weeks, from September 2006 to June 2007—a process that involved weekly injections and twice-daily pills. Doctors were hoping for a 100-fold drop in viral load—the amount of hepatitis C virus (HCV) in his blood—after four weeks and an undetectable viral load level after 12 weeks. Dietrich experienced what is considered "a rapid viral response"—he was undetectable at six weeks—a clear sign that treatment was working. Slightly after the nine-month mark, Dietrich was able to stop treatment. A follow-up test six months later confirmed that he was cured.

"It was awesome!" Dietrich recalls. "My viral load dropped so much so early that I knew if I stayed on the protocol, the odds were in my favor."

Four years later, Dietrich continues to do well—and the hep C experience continues to influence his life. He still maintains most of his health regimen, and he has a newfound passion for health and advocacy, channeled through the Caring Ambassadors Hepatitis C Program, now run by his sister, Lorren Sandt. And while weary of giving advice, Dietrich is open about his experiences and is generous with the information he has.

First, he urges everyone to get tested. He never considered himself in a high-risk group and he had no symptoms, yet a simple blood test changed his life.

"I'm a big believer that the No. 1 treatment is diagnosis," Dietrich

says. "Once you've been tested and you know your status, you can stop doing the things that hurt you."

Next, disclose—to anyone who can help with the journey ahead.

"Disclosure affects how you go about treatment and how you make choices," Dietrich says.

Although deciding whether to go on treatment is a truly personal decision, Dietrich does have some thoughts: Understand the virus and its effect on your body, establish a process of finding relevant and unbiased information, and get as healthy as possible, as soon as possible. And use your intuition, he adds. Listen to doctors and your team of experts, but expand your spiritual practice and heed your body's messages. Finally, find support.

In addition to [hepmag.com](http://hepmag.com), a good place to start getting information and linking to support is Dietrich's nonprofit, the Caring Ambassadors Hepatitis C Program. The organization's goals are to educate people living with HCV, promote HCV awareness and facilitate collaboration among HCV groups.

These days, Dietrich has established a new normal for his life, including routines such as heading to the office and hitting the basketball court. Just like he did when he attacked his hep C virus, Dietrich is using determination, control and persistence to pursue a full, rich and healthy life.

**CRISTINA GONZÁLEZ**

[editorial@hepmag.com](mailto:editorial@hepmag.com)

**1 in 33 baby boomers  
have hepatitis C**

**Do you?**



**Find out more at [hepmag.com](http://hepmag.com)**

---

**SMART+STRONG**  
EMPOWER YOUR HEALTH





© 2011 Vertex Pharmaceuticals Incorporated VX11-1695.01 10/11  
The people shown in this poster are models, not people with hepatitis C.

# “I survived disco. I can fight hepatitis C.”

Sure, I've changed over the years. But so has the science of hepatitis C. It's a serious disease. But I've learned it can be cured.

**Call a registered nurse  
at 1-888-552-2488 for answers and  
a free program to keep you in the know.**

Mon - Fri, 8 am - 8 pm, EST

Brought to you by Vertex Pharmaceuticals.

Visit [www.BetterToKnowC.com/paper](http://www.BetterToKnowC.com/paper)

**TIMES HAVE CHANGED**