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# living with HEPATITIS C

a series of stories written  
by people living with  
hepatitis C

## Jason Part 2

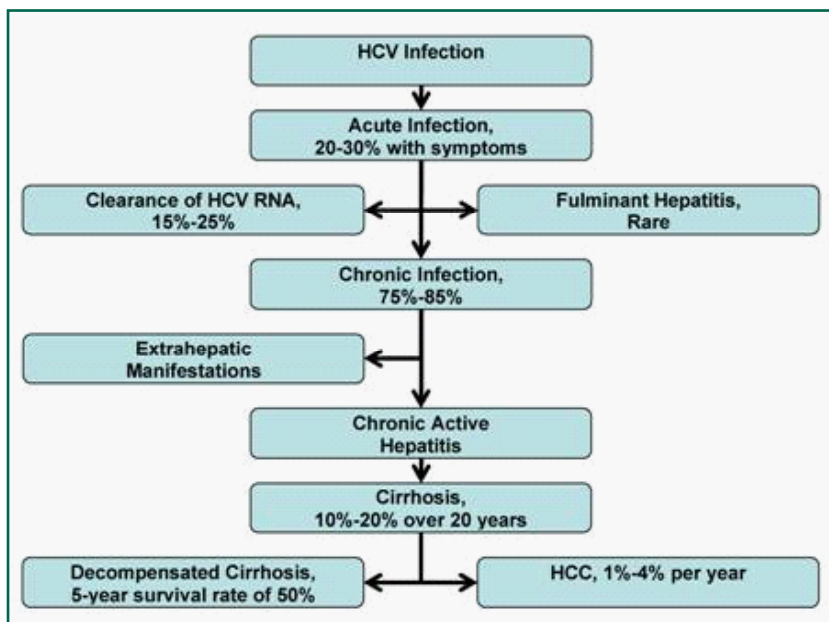
### Acute and Chronic HCV Infection and Symptoms

When HCV is introduced into the body, it develops into acute hepatitis C infection. Seventy to eighty percent of acute infections are asymptomatic. For the twenty to thirty percent who become symptomatic, the onset of symptoms occurs within three to twelve weeks after exposure. Acute hepatitis C infection symptoms can include fatigue, malaise, anorexia, and jaundice. Although acute HCV infection can be severe, liver failure is rare. It takes about two to twenty-six weeks for the virus to develop after someone has been infected with HCV. Up to thirty percent of HCV-infected people will test negative for the virus during this onset phase.

Twenty percent will “clear” the virus, or have spontaneously resolving infection, in which the virus becomes undetectable and ALT levels return to normal (Chen, Morgan, 2006). I was not one of the twenty percent.

Eighty percent of those infected with HCV progress into chronic disease. HCV is considered chronic if the virus is present in the blood six months after infection. Factors such as age, gender, and ethnicity can determine whether HCV progresses into chronicity. As

with acute hepatitis C, most people infected with chronic hepatitis C are asymptomatic. For the thirty percent of those who do present symptoms, these can include weight loss, poor appetite, fatigue, aching joints, depression,



mood swings, and “brain fog” (InteliHealth.com, 2007).

## **Duration of the Disease**

There is currently no cure or vaccine for HCV. Besides the twenty percent who will “clear” the virus, or have spontaneously resolving infection, most will have the disease for life. The disease can progress slowly over twenty or thirty years with no symptoms. For some, the disease will result in cirrhosis or other forms of liver disease (Patient Education Center, 2008).

After HCV has moved into chronic infection, there are many factors that determine the progression of fibrosis. The major factor that can accelerate the progression of fibrosis is alcohol use. I have heard many times that drinking alcohol while infected with HCV is like throwing gasoline on a fire. Chen and Morgan (2006) describe other factors that accelerate disease progression, including, “older age at time of infection, male gender, the degree of inflammation and fibrosis present on the liver biopsy, co-infection with human immunodeficiency virus (HIV) or hepatitis B virus (HBV), and co-morbid conditions such as immunosuppression, insulin resistance, non-alcoholic steatohepatitis, hemochromatosis, and schistosomiasis.”

The development of fibrosis can imply progression into cirrhosis. However, this varies widely from individual to individual. At the time of my biopsy, I was at stage one, or fibrous expansion to some portal areas. This was after six years of intravenous drug use, assuming that this had been the cause of my HCV infection. At this rate, it is safe to say that by the time I would reach fifty, I would have the beginnings of cirrhosis of the liver. Cirrhosis develops in approximately ten to fifteen percent of individuals with chronic HCV. This progression is often silent. Many times HCV-infected individuals do not learn that they have the disease until they present with complications of end-stage liver disease (decompensated cirrhosis) or hepatocellular carcinoma (liver cancer). Symptoms of a scarred liver and end-stage liver disease include swollen abdomen (ascites)

and legs/ankles (edema) due to the accumulation of body fluids caused by the liver’s decreased ability to produce blood proteins (gastricliverhealth.com, 2007). Other symptoms that a doctor may look for during the diagnosis of HCV include: enlarged liver or spleen (“hepatomegaly” or “splenomegaly” respectively), enlarged breast tissue (in men), redness of the palms (palmar erythema), small, spider-like veins, usually on the chest and back (spider telangiectasias), muscle wasting, atrophy (shrinkage) of the testes, and Asterixis (spontaneous flapping of the hands when outstretched with the palms facing forward, due to hepatic encephalopathy). If an individual progresses to decompensated cirrhosis, there is a five-year survival rate of fifty percent. I did not want to get to that point in the disease.

After I underwent all of these tests, my doctor called my fiancée and me into his office for a meeting. He sat us down and explained the results of the myriad tests that I had undergone. I learned the significance of the ALT and AST enzyme levels. I found out what I was up against with my diagnosis of genotype 1a. It was at this meeting that I learned the next step in the process. The doctor told us that I should undergo a liver biopsy to determine the amount of damage that the virus had inflicted on my liver. I had never undergone any medical procedure before that time, so I was anxious.

The procedure was scheduled, and I took the day off work. My fiancée came with me to provide moral support and to drive me home after the procedure. I was asked whether I wanted a mild tranquilizer to help with my anxiety, but because of my history of addiction, I refused. The area in which the biopsy was to be performed was carefully cleaned and prepped with a local anesthetic to numb the skin and the tissue below. As I lay on my left side, the doctor inserted a thin needle into my skin. The doctor instructed me on how to breathe as he advanced the needle in and out of my liver. The procedure took all of a few seconds. I left the hospital a few hours later with nothing but a little tenderness and a Band-Aid.

Liver damage is measured in two ways, grading and staging. The Modified Hepatic Activity Index Grading Chart measures the degree of inflammation of the liver. The Modified Liver Biopsy Staging Chart measures the architectural changes, fibrosis, and cirrhosis of the liver. Biopsy grading is measured on a scale of zero to four (Hepatitis-Central.com, 2007):

- Grade zero signifies that the liver is absent of any inflammation
- Grade one signifies mild inflammation
- Grade two signifies mild/moderate inflammation
- Grade three signifies moderate inflammation
- Grade four signifies severe inflammation

I was graded at a level two, or mild/moderate inflammation. This was considered a significant amount of damage because of my young age and the relatively short amount of time that I had been exposed to transmission methods. The liver biopsy staging scale is measured from zero to six (Hepatitis-Central.com, 2007):

- Stage zero signifies no fibrosis (fibrous scar tissue in the liver)
- Stage one signifies fibrous expansion to some portal areas
- Stage two signifies fibrous expansion to most portal areas
- Stage three signifies fibrous expansion to most portal areas with some portal-to-portal (p-p) bridging
- Stage four signifies fibrous expansion with marked bridging [portal-to-portal (p-p) and portal-to-central (p-c)]
- Stage five signifies marked bridging, with some nodules (incomplete cirrhosis)
- Stage six signifies cirrhosis (cirrhosis refers to the replacement of liver cells by non-functioning, fibrous tissues and shrinking of the liver)

I was diagnosed at stage one, or fibrous expansion to some portal areas. At this point I was recommended for treatment.

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*Part 3 will focus on a discussion of treatment for HCV.*

Chen SL, Morgan TR. The Natural History of Hepatitis C Virus (HCV) Infection. *Int J Med Sci* 2006; 3:47-52. Retrieved October 22, 2007, from <http://www.medsci.org/v03p0047.htm>

GastricLiverHealth.com. (2007). Cirrhosis or Advanced Liver Disease. Retrieved May 6, 2008 From <http://gastricliverhealth.com/articles/Cirrhosis.htm>

Hepatitis-Central.com. (2007). Modified Hepatic Activity Index. Retrieved October 21, 2007, from <http://www.hepatitis-central.com/hcv/biopsy/modified2.html>

InteliHealth.com. (2007). Hepatitis C. Retrieved May 6, 2008 from <http://www.intelihealth.com/IH/ih/IH/WSI-HW000/9339/31187.html>

Patient Education Center. (2008). Hepatitis C. Retrieved May 6, 2008 from <http://www.patienteducationcenter.org/asp/HealthELibrary/HealthETopic.aspx?cid=195725>

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• *hcsPFACTsheet* •  
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<p><b>Executive Director</b> <b>Editor-in-Chief, HCSP Publications</b> Alan Franciscus</p> <p><b>Design</b> Paula Fener</p> <p><b>Production</b> C.D. Mazoff, PhD</p> <p><b>Contact information:</b> Hepatitis C Support Project PO Box 427037 San Francisco, CA 94142-7037 <a href="mailto:alanfranciscus@hcvadvocate.org">alanfranciscus@hcvadvocate.org</a></p>	<p>The information in this fact sheet is designed to help you understand and manage HCV and is not intended as medical advice. All persons with HCV should consult a medical practitioner for diagnosis and treatment of HCV.</p> <p>This information is provided by the Hepatitis C Support Project • a nonprofit organization for HCV education, support and advocacy • © 2008 Hepatitis C Support Project • Reprint permission is granted and encouraged with credit to the Hepatitis C Support Project.</p>
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