When I had hepatitis C, I worked hard to care for my liver. I didn’t think much about other health problems that might occur, especially liver-related ones. Once I cleared hep C, I figured I was good to go. My lifestyle was healthy, so I thought I’d skate along for awhile. However, I was fooling myself.

Earlier this year, my primary care provider and I had “the talk.” Many of you know what I mean. It’s when your weight has crept up, your lab results are heading in the wrong direction, and if you don’t change the course you are on, you are going to suffer some consequences. In my case, my weight had crossed over a line and I was now one of the 70 percent of adults in the U.S. who are overweight.

Quite frankly, I wanted to “yes but” my way through the conversation with my doc. Yes but, I eat a healthy diet. Yes but, I exercise. Yes but, I don’t drink.

However, this time I didn’t try to rationalize my way out.
Avoiding Fatty Liver Disease — CONTINUED FROM PAGE 1

My doctor showed me the data and nothing I could say would change the truth. Then I thought, I didn’t work hard to get cured of hepatitis C in order to die of a heart attack or stroke. Worse, live a poor quality of life because of fatty liver disease (medically called nonalcoholic fatty liver disease or NAFLD). I could imagine type 2 diabetes chipping away at my toes and eyesight.

My concern about NAFLD is probably the most real threat. In the March 2018 World Journal of Gastroenterology, Mazen Noureddin and team reporting study results found that nearly half the patients with hepatitis C who achieved a sustained virologic response after treatment with direct-acting antivirals (DAAs) had NAFLD. (Fatty Liver Prevalence in Hepatitis C patients after Sustained Virological Response with Direct-Acting Antivirals)

If that isn’t enough motivation to get healthier, there is the simple fact that the prevalence of NAFLD is increasing. (Healthcare Cost and Utilization in Nonalcoholic Fatty Liver Disease: Real-World Data from a Large US Claims Database - Alina M. Allen, et al. Hepatology May 18, 2018) The incidence of NAFLD has risen a staggering 6-fold in less than 20 years.

I don’t want to acquire any medical condition that is avoidable. I can’t read these studies and think they don’t apply to me. Let’s be frank. Would you read my column if I ignored the warnings that I write about?

So, I made the decision to get healthier. I tapped in to the courage, determination, and willingness that helped me live with and overcome hepatitis C, and began a long, slow journey to reclaim my health.

I started by collecting data. How much was I eating? What was I eating? What forms of exercise was I doing, how often, and for how long? What did I weigh, what was my Body-Mass Index (BMI), what was my waist-to-hip ratio? Then I began to experiment with some options.

Initially it was trial and error. I tried many things that didn’t work. Gimmicks didn’t work. Sitting for long stretches on rainy days and hoping I would not have any consequences didn’t work. Deprivation didn’t work. What ended up working was simple; I eat less and exercise more. Here are some more details.

I eat less. I tried two methods in order to understand how much I was eating and how to adjust my intake. One method uses portion control containers. This system provides colored containers and helps with portion control. An equation helps you determine what your basic calorie needs are and how many containers of each type of food you can have. Amazon sells a variety of these systems for about $10.

The other method uses an app to track food, water and exercise. Lose It and My Fitness Pal are two popular apps. I preferred the app, but the container system helped me see how out-of-control my portion sizes had been. I could see that although I had been eating healthy foods, I was eating too much.

I avoid sugar, high fructose corn syrup, and trans fats
I don’t deprive myself
I increased my physical activity
I drink plenty of water
I get 8 hours of sleep a night
I depend on others
I set obtainable goals
I keep a log
I foster enthusiasm
I am on the slow track.

— CONTINUED ON PAGE 3
I avoid sugar, high fructose corn syrup, and trans fats. Mostly I eat food that hasn’t been processed.

I don’t deprive myself. No food is forbidden. I plan my treats and my cheat days.

I increased the variety and intensity of my physical activity. I vary my fitness routine. I aim for 6 days, with 3 days dedicated to strengthening. Although initially hard, I am now doing high intensity interval training (HIIT). Research shows that HIIT is a great way to reduce risk of NAFLD. For those new to HIIT, check out the CDC’s website.

I drink at least half my body weight in ounces of water. For example, 75 ounces is a good target for someone weighing 150 lbs. I make water enticing by flavoring it with lemon, lime, ginger, berries, cucumber, etc. I also drink hot and cold unsweetened tea. And yes, I drink coffee. It’s good for the liver.

I am committed to at least 8 hours of sleep a night. I don’t necessarily get 8 hours, but I am in bed with the lights off for that amount of time.

I depend on others. My head can be an unhealthy place. It tells me to take it easy and to avoid pain. I attend classes, walk with friends, and hang out with people who encourage healthy habits. The internet provides tips and motivation, such as this YouTube clip, Never, Ever Give Up. Arthur’s Inspirational Transformation!

I foster enthusiasm. Instead of working out, I play. If something looks hard, I try it even if it looks impossible. When I began, I just wasn’t into pain. Planks and burpees hurt, so I didn’t do them. However, I learned how to modify these and now I can do a few.

I stay honest by measuring my food, water, and activity. Left to my own devices, I am not trustworthy. If I don’t measure my food, my portions will get bigger.

I set small, measurable, obtainable goals. Here’s a goal that didn’t work: Lose 5 lbs. Here’s one that did: Today I am going to eat 1600 calories, including 4 servings of vegetables, 2 servings of fruit, a serving of nuts, 3 servings of lean protein, 2 servings of carbohydrates and avoid all sugar and trans fats. This is clear and I can do that for one day.

I keep a log of what I do. Data is my friend. If I don’t see results, I can look at my data and figure out why. It’s not rocket science. I don’t get good results when I eat lasagna or a big juicy burger. I get great results when I stick to the food I plan to eat.

I am on the slow track. I am not on a diet; I am on a plan for living. This is permanent. If I think for one moment that I will lose weight, go off this plan, and stay at a lower weight, then I am deluded. I got this way because I got off track. Now I am back on track.

I am still collecting data, but the results have been astonishing. I am officially one of the 30 percent of adults in the U.S. with a healthy weight. I am stronger that I thought possible. I have more endurance and energy. I look forward to strenuous activity. And yes, I’ve lost weight. I have not had my lab tests done, so I don’t know what the effect will be, but if how I feel matters, I feel great.

Next month I will explore the relationship between sugar and the liver. Stay tuned… ☺
AASLD and IDSA’s HCV Guidance provides the major standards for all aspects of testing, managing, and treating hepatitis C virus (HCV). The latest changes to the guidance included recommendations for pregnant women, people who inject drugs, men who have sex with men, and people who are incarcerated.

These updates open the door to testing and treating people who have often been left out of the HCV management algorithm. The changes to the Guidance highlight the need to test and treat key at-risk populations. Hepatitis C disproportionately affects people in correctional institutions, a population that is inadequately treated. In recent years, the opioid epidemic has caused a dramatic increase in the incidence of HCV among those who inject drugs. The opioid epidemic has also led to an increased prevalence of HCV-infected women giving birth in the United States. There has also been a rise in outbreaks of sexually transmitted HCV among men who have sex with men (MSM).

To read the latest recommendations, visit HCV Guidance: Recommendations for Testing, Managing, and Treating Hepatitis C www.hcvguidelines.org

— CONTINUED ON PAGE 5
The Canadian Association for the Study of the Liver recommends that Canadians born between 1945 and 1975 should be tested for hepatitis C.

This item dominated the hepatitis news in June, and appeared in much of the Canadian press. The source of the story was the release of the Canadian Association for the Study of the Liver’s guidelines, ‘The management of chronic hepatitis C: 2018,’ by Hermant Shah, et al. (CMAJ June 4, 2018)

The Canadian guidelines emphasize that chronic hepatitis C virus (HCV) is a major public health problem in Canada. Similar to the United States, HCV is underdiagnosed and undertreated. The Canadian guidelines recommend individualized treatment, especially for difficult-to-cure populations, including patients with renal failure, decompensated cirrhosis, and active substance use disorders. The guidelines strongly discourage the use of any interferon-based treatments. Additionally, the guidelines stress the follow-up of successfully treated patients, including the life-long surveillance for hepatocellular carcinoma (liver cancer) in patients with cirrhosis. More than 250,000 Canadians are estimated to have HCV, and between 40 and 70 percent are unaware of this. It is interesting to note that the Canadian guidelines extend the birth year range of their baby boomers to 1975, where in the U.S. birth cohort testing stops at 1965.
The symptoms of decompensated cirrhosis are well documented and understood. The more common symptoms of chronic hepatitis C (HCV) can dramatically vary from patient to patient. Patients want their symptoms to be understood, validated and treated, and their medical providers want to have scientific data to help guide them when they treat their patients. The current study was conducted to evaluate the reliability and validity of several survey instruments that will be used in the PROP UP study to understand patient-reported symptoms before, during and after HCV treatment.

A study conducted by D. M. Evon, et. al. assessed and validated the NIH PROMIS short form measures and the HIT-6 (Head Impact Test). PROMIS and HIT-6 are patient self-reported symptom instruments.

Nine-hundred-sixty-one (961) patients with chronic HCV at 11 U.S. liver centers completed the PROMIS and HIT-6 instruments before treatment with direct-acting antiviral medications. Surveys were conducted over the phone or taken through a data website.

The study was a non-pharmaceutical funded clinical study. It was funded by The Patient Centered Outcomes Research Institute (PCORI) whose mission is to include patients with the disease as patient partners during the research studies. For the PROP UP study, a UNC Patient Engagement Group was instrumental in the development of the study design and selection of the study outcomes and surveys used to capture patients’ experiences. For disclosure purposes, I have been a member of the UNC Patient Engagement Group since its inception in 2013.

**PROMIS Measures:** The short-form surveys evaluate fatigue, depression, anxiety, anger, pain interference, sleep disturbance, cognition concerns, belly pain, diarrhea, and nausea/vomiting (some of the most common symptoms of HCV or side effects of DAA therapy). A higher score equals worse symptoms.

**HIT-6:** A 6-item questionnaire to score headaches, which are not covered by the PROMIS measures. The score ranges from “Never to Always.” A higher score equals a worse headache.

The patient characteristics were mean age 57 years old (23-82 yo); male 55%; white 61%; Hispanic
Evaluation of Instruments used to Measure Hepatitis C Patient Reported Symptoms — CONTINUED FROM PAGE 6

4%; married 38%; high school or equivalent 55%; employed/disabled/applying 49%; cirrhosis 50%.

The PROMIS and the HIT-6 performed well and were found to be reliable and valid indicators of symptoms in patients with HCV. About 30 – 59% of patients reported not having some of the symptoms, especially for diarrhea, nausea/vomiting, and abdominal pain. Between 41% to 63% of patients reported mild to severe symptoms. Higher symptom scores were associated with more advanced cirrhosis and having a greater number of other health conditions. Almost all patients indicated some level of fatigue or sleep disturbance, that is, very few patients reported having no fatigue or sleep problems.

Summary: The PROMIS and HIT-6 performed well when taken by many patients living with HCV in this large prospective study. The outcomes of the study reveal how symptom experiences can vary from person to person. The authors noted that there is room for refinement in the PROMIS and HIT-6 measures and inclusion of other subgroups of patients in future studies. This study sets the stage to now evaluate how patients’ symptoms change over time, during HCV treatment and up to one year after treatment ends, to see if these symptoms stay the same, get better, or get worse over time.

Comments: I was cured of hepatitis C infection more than a decade ago. For me, it was very frustrating that many of the symptoms I experienced before being cured were never validated. The validation of the PROMIS and HIT-6 in this study will help to bring more understanding and compassion to patients living with HCV who experience these symptoms. There will be more information published from the PROP UP study on patient-reported outcomes in 2018-2019 that will be reported here.

The PROMIS and HIT-6 performed well when taken by many patients living with HCV in this large prospective study. The outcomes of the study reveal how symptom experiences can vary from person to person.

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1 Article: Psychometric properties of the PROMIS short-form measures in a U.S. cohort of 961 patients with chronic hepatitis C prescribed direct-acting antiviral therapy – D. M. Evon, et. al.

Abstract: Prognostic value of viral eradication for major adverse cardiovascular events in hepatitis C cirrhotic patients - P. Cacoub, et. al.

Source: AHJ April 2018; Volume 198, Pages 4–17 https://doi.org/10.1016/j.ahj.2017.10.024

Study Aims and Results
The objective was to examine the impact of HCV cure on major adverse cardiovascular (heart disease) events (MACEs) in patients with compensated hepatitis C (HCV) cirrhosis. MACEs included stroke, myocardial infarction, ischemic heart disease, heart failure, peripheral arterial disease, cardiac arrest, and cardiovascular death. There were 878 patients followed for a median of 58 months for the period ending December 2015.

Sixty-two of 878 (7%) patients had a total of 79 MACE events. The main predictive values of MACE included Asian origin, history of MACEs, arterial hypertension (high blood pressure), type 2 diabetes, current smoking, low serum albumin level, high bilirubin level, and low platelet count.

Curing HCV was associated with a decreased risk of MACE events, but Asian origin, arterial hypertension, smoking, and low serum albumin level remained predictive of MACE occurrences. In those who had MACE before being cured, the 5-year survival rate was 60% compared to the survival rate of 88% in the people who did not have MACEs.

Conclusions
Curing HCV decreases the rate of heart disease whereas in patients with HCV-related compensated cirrhosis, Asian ethnic origin, arterial hypertension, smoking, and low serum albumin are independent predictive factors of heart disease.

Curing people of HCV increases the survival rate from MACEs but having MACEs before treatment reduces overall survival from MACE events even after being cured of HCV.

Editorial Comments
This is another reason why we should be treating HCV early before disease progression occurs and treating MACE and other health issues that may or may not be caused by HCV.

“...before being cured, the 5-year survival rate was 60% compared to the survival rate of 88% in the people who did not have MACEs.”
Study Aims and Results
The finger-stick viral load assay results can be given in 1 hour, allowing for a single visit HCV diagnosis after a positive HCV antibody result. The aim was to test the reliability of an HCV RNA (viral load) finger-stick assay compared to the blood draw assay. There were two arms in the study—an HCV viral load negative group of 125 people (comparator arm) and an HCV positive viral load group of 85 people (study arm).

The study tested the sensitivity (to correctly identify those with the disease) and specificity (to correctly identify those without the disease) by blood draw compared to finger prick.

Conclusions
The Xpert HCV Viral Load Finger-Stick Point-of-Care Assay is a reliable HCV viral load assay that provides 100% accuracy.

Editorial Comments
Currently, people who test HCV antibody positive have to return for an HCV viral load test or if they have a blood draw for a viral load test they have to return later for the results. If a patient has to return for the results, it can lead to patient anxiety, and patients may be lost to follow-up. The Point-of-Care finger stick diagnostic test will help to diagnose active HCV infection immediately, eliminate the need for a blood draw, provide immediate medical care, counseling, and follow-up care. Finally, it will be another tool to help eliminate HCV.

“The Point-of-Care finger stick diagnostic test will help to diagnose active HCV infection immediately, eliminate the need for a blood draw, provide immediate medical care, counseling, and follow-up care.”
Gut dysbiosis associated with hepatitis C virus infection- T. Inoue, et. al
Source: Clinical Infectious Diseases, ciy205, https://doi.org/10.1093/cid/ciy205

Study Aims and Results
The aim was to look at the relationship of the intestinal microorganisms in HCV patients compared to healthy people. Fecal (poop) sample was collected from 166 HCV patients and 23 healthy people and examined. The health status of people with HCV included normal ALTs (18 people), chronic hepatitis C without liver cirrhosis (84 people), liver cirrhosis (40 people), liver cancer (24 people). Compared to healthy people the bacterial diversity was lower in the people infected with hepatitis C. This occurred in various degrees in all stages of HCV disease progression.

Conclusions
Gut dysbiosis was diagnosed in people with hepatitis C regardless of the severity of liver disease.

Editorial Comments
Gut dysbiosis is implicated in a wide variety of disorders including inflammatory bowel disease, irritable bowel syndrome, and celiac disease. It may also include disorders outside of the intestines including allergies, metabolic syndrome, cardiovascular disease, and obesity.

Source: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4315779/

For more information about diagnosis, disease, and treatment: https://www.healthline.com/health/digestive-health/dysbiosis#prevention

“Gut dysbiosis is implicated in a wide variety of disorders including inflammatory bowel disease, irritable bowel syndrome, and celiac disease.”
**Abstract:** Trends in hepatocellular carcinoma incidence and survival among people with hepatitis C: An international study


**Summary:**

This study evaluated liver cancer in British Columbia, Canada (58,487 patients), New South Wales, Australia (84,529 pts), and Scotland (31,924 pts). The time periods studied were 1995-2011/2012/2013.

A little over 1% of the people in the countries studied had an HCV-related liver cancer diagnosis. Since the mid-2000’s the prevalence of liver cancer has slightly increased in the regions. Liver cancer rates either stabilized or slightly increased in the era of interferon-based therapy era. Older age was a predictor of the development of liver cancer. Finally, the authors noted that earlier and improved screening for liver cancer and the introduction of direct-acting antiviral medications should reduce HCV-related liver cancer rates in the coming years.

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**Hepatitis C care in the Department of Veterans Affairs: Building a foundation for success** – P. S. Belperio, et. al.


**Summary:**

The Veterans Affairs (VA) is the largest medical provider for patients infected with hepatitis C in the United States. The VA estimates that 8.4% U.S. of veterans are infected with hepatitis C and have diagnosed 90% of veterans. An estimated 8,000-10,000 veterans remain undiagnosed. HCV treatment in the VA is available through an innovative approach that uses clinical pharmacists, nurse practitioners, physician assistants, video telehealth medicine and various electronic technologies. Maximum patient co-pay costs are $33.00 for a 12-week supply. The co-pay cost may be waived depending on the patient’s financial situation. As of December 2017, the VA has treated 100,000 veterans infected with hepatitis C.

“The VA estimates that 8.4% U.S. of veterans are infected with hepatitis C and have diagnosed 90% of veterans.”
BRIEFLY…

Impact of sustained virological response on the extrahepatic manifestations of chronic hepatitis C: a meta-analysis – P. Cacoub, et. al.

Source: Gut 2018; - Published Online First: 05 Jun 2018. doi: 10.1136/gutjnl-2018-316578

Summary:
A meta-analysis of 48 studies found that achieving a cure reduced deaths from extrahepatic manifestations. Also, being cured was associated with a higher remission in patients with cryoglobulinemia vasculitis and malignant B-cell lymphoproliferative diseases. Furthermore, achieving a cure was associated with reduced insulin resistance and a significant effect on the incidence of diabetes. However, the authors commented that there needed to be higher quality data and longer follow-up periods.


Summary:
A review of records from 2012 to 2015 in an LGBTQ-friendly clinic in New York City was conducted to understand the screening practices and prevalence of viral hepatitis. Approximately 13% of patients were screened. Screening rates were 27% for hepatitis C (HCV), 22% for hepatitis B (HBV) and 20% for hepatitis A (HAV). HAV screening in female to male were 28%; male to female were 16%. HBV screening in female to male were 28%; male to female were 16%. HCV screening in female to male was 30%; male to female was 18%. The prevalence of HCV, HBV, and HIV in female to male was 0%, 0%, and 0.44% and male to female was 1.78%, .0890%, and 1.78%. The percentage of patient’s immune to HAV in male to female and female to male ranged from 54% to 58%. The authors commented that there was a lack of hepatitis screening in the transgender population. The authors also noted that there are no guidelines for screening transgender people.

“…there was a lack of hepatitis screening in the transgender population.”
WHAT’S UP!

We have reviewed and updated our entire series of Easy C Facts. Take a look—

There are many things you can learn about hepatitis C, from “Alcohol and HCV” to “Whom Should I tell?”

Watch Our Video!

Click here to listen to a real patient talk about her journey from diagnosis to treatment to cure.

Don’t forget to check out the PackHealth – a free resource to help patients navigate their HCV treatment journey from applying for treatment to cure!

Do you have hepatitis C? Get support. Get answers.

- Get a personal Health Advisor to coach you on your journey.
- Develop a personalized plan – you set the goals, we’ll help you get there.
- Find answers and accountability to get the results you want.
- Use the tools and guides we send you to track your progress.

Enroll online: packhealth.com/hcv

As easy as 1-2-3!

1. Enter your contact info
2. Use promo code: HCV2017
3. Get 3 months of membership free!

Feeling Tired

Some people with hepatitis C (HCV or Hep C for short) say they feel tired. Feeling tired is a symptom of being ill. It may be fatigue.

FACT

An easy way to combat fatigue is to get more rest.

Here are some tips to help combat fatigue:

- Try some light exercise every day. Start with 10 to 15 minutes and increase as you feel ready.
- Try to rest before you get too tired.
- Avoid or reduce alcohol and non-prescribed drug use.
- Drink lots of water. A half to a whole gallon a day is about right.
- Try to rest before you get too tired.
- Ask for help.
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- Ask for help.

A liver biopsy is the best way for your doctor to know whether you have healthy or damaged liver tissue.

Try not to worry too much, because most people only have mild to moderate pain.

A friend or a member of the family will have to take you to and from where you have the biopsy done.

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The HCV Advocate offers information about various forms of intervention in order to serve our community. By providing information about any form of medication, treatment, therapy or diet we are neither promoting nor recommending use, but simply offering information in the belief that the best decision is an educated one.

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