

# Managing Side Effects of Hepatitis C Treatment

*The VA Hepatitis C Resource Center Program  
and the National Clinical Public Health Program  
Veterans Health Administration  
U.S. Department of Veterans Affairs*



[www.hepatitis.va.gov](http://www.hepatitis.va.gov)



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NOTES

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NOTES

The quotes used in this side effects management guide are from veterans with hepatitis C (and their significant others) who received care at the Portland VA Medical Center.



The quotes under “Bright Side” reflect positive experiences or coping strategies veterans used during treatment.



“Down Side” represents negative experiences veterans had while on treatment.

These quotes are intended to help you understand the range and severity of side effects others have experienced while on interferon treatment. Please remember that each individual responds differently to treatment, so you may or may not experience the symptoms reported by others.

## Introduction

Alpha interferons, which are given as injections under the skin, have been used since the late 1980s in the treatment of chronic hepatitis C. Through the refinement of interferon and the addition of oral ribavirin, long-term viral clearance has gone from about 5% to now approximately 50% in patients who have never before received treatment.

Side effects of treatment, however, are common. There are many ways your health care provider can help you manage these side effects. A gentle modification of your behavior, lifestyle, or routine medical therapy is often the first step. Dose reduction or adding additional medications typically is the second step. Dose reduction is typically only done when the side effects are severe. Since reducing your dose could also mean reducing your chance of clearing the virus, your provider will carefully weigh the risks and benefits of this approach.

The most common side effects from interferon therapy include: fatigue, headache, fever, nausea, weight loss, depression, and skin rash.

The aim of this guidebook is to provide a source of information for patients on interferon

Provider's Name

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If you're experiencing an emergency call 911 or report to the emergency care department

<p>Nausea &amp; Vomiting (continued)</p>	<ul style="list-style-type: none"> <li>• Try eating ginger in ginger tea, ginger ale or gingersnaps</li> <li>• Eat some crackers or dry white toast if you feel sick in the morning</li> <li>• Over-the-counter antacids or other medications may be recommended by your provider</li> </ul>
<p>Poor appetite</p>	<ul style="list-style-type: none"> <li>• Eat smaller, more frequent (4-6) meals throughout the day</li> <li>• Drink protein drinks (Carnation Instant Breakfast*, Ensure* or Boost*)</li> <li>• Eat snacks with protein (cheese, peanut butter, eggs)</li> <li>• Eat whatever appeals to you even if not hungry. Eat a variety of foods</li> <li>• Walk before a meal</li> </ul>
<p>Rashes &amp; Dry skin</p>	<ul style="list-style-type: none"> <li>• Avoid long, hot showers or baths</li> <li>• Use moisturizing soaps (Dove*, Oil of Olay*, Cetaphil*)</li> <li>• Use moisturizing lotion after showers (Aquaphor*, Absorbace*, Lac-Hydrin*)</li> <li>• Use mild unscented laundry detergents and avoid fabric softeners</li> <li>• Use sunscreen</li> <li>• Try rubbing or pressing on the itchy areas rather than scratching</li> <li>• Use petroleum jelly on dry, itchy areas. Your provider may recommend other agents to help</li> </ul>

treatment about potential side effects and ways to help manage them.



“There's light at the end of the tunnel...and it's not the train. You just have to commit to keep going, be positive, and hope for the best.”



“Expect to feel sick, expect to feel #@%\$!y for a year.”



“If you're going to do treatment, give yourself a chance to make it. I'm glad I did the interferon treatment—dealing with what life handed me.”



“Consider having a bad case of the flu for a year.”



“Interferon...it does serious things to your system. You need to get ready for it.”

—Veterans who've undergone interferon treatment

\* Generic versions are usually less expensive than brand-name products. Brand names are provided as examples only, and their inclusion does not indicate an endorsement by the Veterans Health Administration or any other Government agency. Also, if a particular brand name is not mentioned, this does not mean or imply that the product is unsatisfactory.

Irritability & Anxiety (continued)	<ul style="list-style-type: none"> <li>• Avoid stimulants like caffeine and maintain adequate fluid intake</li> <li>• Join a hepatitis C support group</li> </ul>
Muscle & Body aches	<ul style="list-style-type: none"> <li>• Try injecting interferon at bedtime if body aches develop 1-3 hours after injection</li> <li>• Take acetaminophen (Tylenol*) about 30-60 minutes before weekly interferon injection</li> <li>• Take acetaminophen (Tylenol*) 1-2 tablets prior to interferon injection and repeat 4-6 hours later if needed up to a maximum of 2,000 mg/day. Thus, do not exceed 6 tablets/day of 325 mg or 4 tablets/day of 500 mg of acetaminophen (Tylenol*).</li> <li>• Use ibuprofen (Advil*, Motrin*) or naproxen (Aleve*) if approved by your provider</li> <li>• Try low-impact exercise such as walking or low-impact aerobics as directed by your provider</li> <li>• Maintain adequate fluid intake (at least six to eight non-caffeinated 8-oz glasses/day)</li> <li>• Apply warm moist heat or massage areas</li> </ul>
Nausea & Vomiting	<ul style="list-style-type: none"> <li>• Take ribavirin with food</li> <li>• Eat small meals</li> <li>• Avoid foods or smells that trigger nausea. Try eating cold foods and avoiding cooking smells</li> <li>• Eat healthy foods. Avoid greasy, spicy, acidic or sweet foods</li> </ul>

<p>Insomnia</p>	<ul style="list-style-type: none"> <li>• Go to sleep and wake up at the same time every day</li> <li>• Do not read or watch TV in bed</li> <li>• Limit daytime naps</li> <li>• If ribavirin makes you jittery, take at 4-5 pm instead of before bedtime</li> <li>• Limit fluid intake for 2 hours before bedtime to avoid having to get up to go to the bathroom</li> <li>• Avoid caffeinated products, especially in the afternoon and at night</li> <li>• Avoid heavy meals close to bedtime</li> <li>• Take warm baths, read or listen to music, get a massage</li> <li>• Try a glass of warm milk (contains tryptophan, a natural sleep agent)</li> <li>• Diphenhydramine (Benadryl*) or other medications may be recommended by your provider</li> </ul>
<p>Irritability &amp; Anxiety</p>	<ul style="list-style-type: none"> <li>• Talk to your provider about your symptoms and medications that might help</li> <li>• Always discuss thoughts of harming yourself or someone else with your provider</li> <li>• <b>Go to the nearest emergency room if you are in danger of harming yourself or others</b></li> <li>• Do mild to moderate exercises at least 3 times/week as directed by your provider</li> <li>• Try relaxation techniques such as deep breathing, taped exercises, yoga, Tai Chi or meditation</li> </ul>



## Fatigue: Will I become fatigued?

The majority of people with chronic hepatitis C (HCV) will feel fatigued (tired) at some point during their treatment. This is important for you to know so that you do not stop your medication before it is time.



**Bright Side:** "Getting into fresh air cleared my head. Every day I forced myself to walk, whether I felt like it or not."



**Down Side:** "Treatment felt like a heavy weight. Gravity was about 50 times more than what it is. I had to rest after injections."

**Question:** *What are the symptoms of fatigue?*

**Answer:** *Patients with chronic hepatitis C usually report feeling the following:*

- Decreased ability to remain active

- Feeling tired or sleepy
- Feeling bored
- Feeling physically weak or drained
- Spending more effort on routine tasks

**Question:** *What can I do if I feel fatigued?*

**Answer:** *There are a number of things you can do to help yourself feel better. Here are some suggestions that may help:*

### Exercise and Rest

Try to go for a walk, take a light run, swim, play a sport, bicycle, or be active in a hobby. Try to do something active everyday! If you need to do some “physical” work, try to do it during times of the day when you usually feel the best. Try alternating rest with activity. Talk to your doctor, however, before starting any exercise program.



### Nutrition



It is important to eat a balanced diet with fresh fruits and vegetables to ensure you are getting enough vitamins and minerals. Just remember to drink plenty of water throughout the day, especially during and after exercising!

<p>Fever &amp; Chills (continued)</p>	<ul style="list-style-type: none"> <li>• Use extra blankets and clothes when you have the chills</li> <li>• <b>Notify your provider if your temperature is above 101°F for more than 24-48 hours</b></li> </ul>
<p>Hair thinning or Hair loss</p>	<ul style="list-style-type: none"> <li>• Avoid harsh hair products such as dyes, perms, gels, sprays and mousses</li> <li>• Use a mild shampoo such as baby shampoo</li> <li>• Avoid braiding hair; use a wide-tooth comb or soft brush</li> <li>• Wear a cap, scarf, turban or wig</li> </ul>
<p>Headaches</p>	<ul style="list-style-type: none"> <li>• Maintain adequate fluid intake</li> <li>• Take acetaminophen (Tylenol*) or ibuprofen (Motrin*, Advil*) as directed by your provider</li> <li>• Keep lights dim, wear sunglasses or stay in darkened rooms</li> <li>• Try to get plenty of rest</li> </ul>
<p>Injection site reactions</p>	<ul style="list-style-type: none"> <li>• Before injecting, warm your medicine by gently rolling the syringe in your hands for a minute</li> <li>• Rotate/alternate your injection site - thigh, upper arm and abdomen. If you are thin, use the thigh area</li> <li>• Do not inject into an area that is irritated, bruised or red</li> <li>• Do not rub injection site</li> <li>• Apply a cold pack</li> <li>• Your provider may recommend applying hydrocortisone cream or other medications to help</li> </ul>

<p>Dry mouth or Mouth ulcers</p>	<ul style="list-style-type: none"> <li>• Brush teeth frequently, especially after eating</li> <li>• Avoid mouthwash containing alcohol</li> <li>• Drink plenty of water or use ice chips or sugar-free lemon drops</li> <li>• Other medications may be needed for mouth sores/ulcers</li> <li>• Ask your provider about medications that may help</li> </ul>
<p>Fatigue</p>	<ul style="list-style-type: none"> <li>• Try low-impact exercise such as walking or low-impact aerobics as directed by your provider</li> <li>• Maintain adequate fluid intake (may have a caffeinated beverage in the morning)</li> <li>• Take a short nap during the day</li> <li>• Lessen your work schedule if possible</li> <li>• Eat well-balanced meals every day</li> </ul>
<p>Fever &amp; Chills</p>	<ul style="list-style-type: none"> <li>• Try injecting interferon at bedtime if fever/chills develop 1-3 hours after injection</li> <li>• Take acetaminophen (Tylenol*) about 30-60 minutes before weekly interferon injection</li> <li>• Take acetaminophen (Tylenol*) 1-2 tablets prior to interferon injection and repeat 4-6 hours later if needed up to a maximum of 2,000 mg/day. Thus, do not exceed 6 tablets/day of 325 mg or 4 tablets/day of 500 mg acetaminophen (Tylenol*).</li> <li>• Use ibuprofen [Advil*, Motrin*] or naproxen [Aleve*] if approved by your provider</li> <li>• Try a cool sponge bath, ice pack or cold pack when you have a fever</li> </ul>

## Timing Your Medication

You may find it helpful to consider taking your interferon at bedtime or on the weekend. If you notice that your fatigue is usually worse 1-2 days after injecting your interferon, ask your health care provider about adjusting when you receive your injections so that you can plan to have 1-2 days that are not as busy.



## What you might not know

Other medical conditions, such as thyroid disease and anemia may worsen fatigue\*.

Other things that can worsen fatigue:

- other medications
- excessive use of caffeine
- alcohol
- street drug use
- lack of exercise
- sleep disturbances

Please tell your doctor about any drug or alcohol use before starting your treatment.

*\*These conditions may develop during treatment. Be sure to discuss severe tiredness with your medical provider.*

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Questions for my health care provider

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Bright Side: “Keeping a consistent schedule helped.”

Cough	<ul style="list-style-type: none"> <li>• Increase intake of water or non-caffeinated beverages</li> <li>• Use a humidifier</li> <li>• Try sugar-free hard candy or cough drops</li> </ul>
Dehydration	<ul style="list-style-type: none"> <li>• Increase intake of water or non-caffeinated beverages</li> <li>• Water down juices, Gatorade* or Crystal Light*</li> <li>• Avoid caffeinated beverages</li> </ul>
Depression	<ul style="list-style-type: none"> <li>• Talk to your provider about your symptoms and medications that might help</li> <li>• Always discuss thoughts of harming yourself or someone else with your provider</li> <li>• <b>Go to the nearest emergency room if you are in danger of harming yourself or others</b></li> <li>• Do mild to moderate exercises at least 3 times/week as directed by your provider</li> <li>• Join a hepatitis C support group</li> </ul>
Diarrhea	<ul style="list-style-type: none"> <li>• Eat more soluble fiber like <u>B</u>ananas, white <u>R</u>ice, <u>A</u>pplesauce and white <u>T</u>oast (the “BRAT” diet)</li> <li>• Avoid foods that are spicy or acidic</li> <li>• Avoid dairy products up to several days after diarrhea resolves</li> <li>• Maintain adequate fluid intake (at least six to eight 8-oz glasses/day)</li> <li>• Your provider may recommend loperamide (Imodium*) or methylcellulose (Citrucel*) or psyllium (Metamucil*)</li> </ul>

## Side Effects Quick Reference Guide

**If the clinic is closed and you are having a serious side effect (such as chest pain or severe depression), please seek immediate medical attention or call 911.**

Side Effect	Management Strategies
Abnormal labs	<ul style="list-style-type: none"> <li>• Be patient! Sometimes your lab results will vary while you are on therapy.</li> <li>• Get your labs done as requested by your health care provide, since medication dose adjustments may be needed based on lab tests.</li> </ul>
Bad taste in mouth	<ul style="list-style-type: none"> <li>• Use sugar-free lemon drops or real lemon wedges</li> <li>• Eat a small amount of yogurt, ½ hour before meals or eat dark chocolate (monitor your glucose levels if you have diabetes)</li> <li>• Drink lemonade or cranberry juice (monitor your glucose levels if you have diabetes)</li> <li>• Eat food cold or at room temperature</li> <li>• Brush teeth frequently, especially after eating, to eliminate metallic taste</li> <li>• Use plastic utensils if experiencing metallic taste</li> </ul>

## Aches & Pains: Will I be in pain?

Many patients taking interferon experience some general aches and pains. These symptoms may persist throughout the course of treatment, but they are usually most intense during the first month.



**Bright Side:** “I drank tons and tons and tons of water. Every time I thought about it, I drank water.”



**Down Side:** “It felt like I had flu symptoms. All my bones would ache and I had terrible headaches. Even your hair hurts.”

**Question:** *What are these aches and pains like?*

**Answer:** *They can mimic flu symptoms, such as:*

- Muscle and joint aches
- Headache
- Low-grade fever

- Chills
- Fatigue and weakness

**Question:** *How do I manage them while on treatment?*

**Answer:** *Here are some pain management strategies:*

- Injecting interferon right before going to bed may be helpful unless it results in insomnia.
- Drinking plenty of fluids will help keep your body hydrated and potentially help some of these symptoms.



- Stay busy! Go to movies, attend community events, go on trips, visit an old friend, ride a bike, take a walk, begin a new hobby. Take the time to do the things you've always wanted to do.

These ideas may help divert your attention from your symptoms.

- Consider alternative treatments. Acupuncture or therapeutic massage may relieve pain effectively for some people. Hot showers, compresses, and

Website:

[www.hcvadvocate.org/hepatitis/hepatitis\\_C.asp](http://www.hcvadvocate.org/hepatitis/hepatitis_C.asp)

**American Liver Foundation (ALF).** A great site for information of advocacy and education programs as well as information regarding the latest research on liver-related diseases. This site contains links to local events and chapters in your area that are supported by the American Liver foundation. There are also links to information about the liver, clinical trials, and the latest on the news front.

Website: [www.liverfoundation.org](http://www.liverfoundation.org)

## Internet Links for More Information

**VA National Hepatitis C Program.** This is a Department of Veterans Affairs hosted website that “provides information about viral hepatitis for health care providers inside and outside the VA system, veterans, and the general public.” Included in the website is a wealth of up-to-date information, links, and resources for individuals interested in learning more about HCV.

Website: [www.hepatitis.va.gov](http://www.hepatitis.va.gov)

### **National Center for Infectious Diseases (NCID).**

Hosted by the Center for Disease Control (CDC), this website offers a large resource for information, statistics, facts, and links for providers and public. Includes information about HCV publications and National Institutes of Health (NIH) sponsored research.

Website:

[www.cdc.gov/ncidod/diseases/hepatitis/c/index.htm](http://www.cdc.gov/ncidod/diseases/hepatitis/c/index.htm)

**HCV Advocate.** A great site with lots of helpful information for people diagnosed with hepatitis C. Home of the Hepatitis C Support Project (HCSP). The founder, who is HCV positive, created this website for “individuals to address the lack of education, support, and services available at that time for the HCV population. HCSP’s mission is to provide unbiased information, support, and advocacy to all communities affected by HCV and HIV/HCV co-infection.”

soaking in a hot tub may also help relax muscles and soothe symptoms.

## Use of Medications

A common way to manage pain is to take acetaminophen (Tylenol<sup>®</sup>) as directed by your health care provider or the product label (never exceed recommended dosages). Acetaminophen may be helpful when taken about half an hour before injection. This may also help with headaches.

AVOID aspirin, acetaminophen (Tylenol<sup>®</sup>), and ibuprofen (like Motrin<sup>®</sup> or Advil<sup>®</sup>) if your liver is severely damaged. Ask your health care provider which over-the-counter medication is right for you.



### **Caution!**

Patients that suffer from significant liver scarring or cirrhosis should avoid taking any kind of aspirin or ibuprofen (Advil<sup>®</sup>).

If all else fails and pain becomes intense and/or chronic, talk to your health care provider about other treatment possibilities.

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Questions for my health care provider

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Questions for my health care provider

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- Satin pillowcases may help reduce any friction and pulling of your hair while you sleep.
- Get a haircut! Cutting the hair length can decrease hair weight and may help reduce the rate of loss.
- Be sure to eat a balanced meal. Some studies suggest that severe deficiencies in iron or overdoses of vitamins A and E can lead to hair loss. Before taking any supplements, please discuss them with your health care provider to see if they will be helpful to you.



## Sleep: Is it really that important?

While on treatment, it is important to get good sleep; your body needs it while it is feeling stressed by drug treatments. Not enough or excessive sleep can cause problems with mood, thinking, energy, and anxiety. Finding time to exercise and relax is important in lessening side effects. In addition, enjoying regular periods of relaxation and exercise may help to improve memory and concentration.



**Bright Side:** “I’m not going to worry about it. All I’m going to do is take it one day at a time.”



**Down Side:** “I was real sensitive to light, more than usual. I would lie down on a bed a lot and listen to music and have the lights out.”



**Bright Side:** “I walked every day even when I didn’t feel like walking. I made myself go out to walk. I said, ‘OK, only for 10 minutes’ and that turned into 20 or 30.”



**Down Side:** “My sleep was worse.”

**Question:** *What are some things I can do to get a good night’s sleep while on interferon treatment?*

**Answer:** *There are many things you can do to help you sleep better:*

- Avoid stimulants like caffeine and nicotine, especially in the evening hours.
- Maintain a regular sleep schedule: go to and get out of bed at the same time every day.
- Limit your fluid intake at nighttime to avoid needing to get up to go to the bathroom.
- Create an optimal sleep environment. Replace your pillow or mattress if necessary, darken windows or use a sleep mask if required, set the thermostat in the bedroom to 65°, and wear earplugs if outside noise is a problem.
- Avoid strenuous exercise within 4-6 hours before your usual bedtime.
- Take a hot bath before sleep.
- Talk to your health care provider about other suggestions that may help you sleep.

### Exercise tips



**Question:** *How can I prevent or minimize hair loss?*

**Answer:** *There are many “home remedies” that you can try to slow the rate or decrease your risk of hair loss. Some suggestions include:*

- Avoid using hair dyes, permanents, or bleaches while on treatment as they may accelerate hair loss and/or hair damage.
- Avoid/limit use of gels, freezing sprays, and mousse, which will make hair difficult to comb through.
- Use mild shampoos like Johnson’s® baby shampoo and shampoo less frequently (1–3 times/week); use conditioner or de-tangler.
- Use soft hairbrushes such as a natural bristle brush or a wide-toothed comb.
- Use low heat when drying your hair.
- Avoid using vigorous combing and other things such as braiding or wearing tight headgear, which will increase the risk of breakage or pulling of your hair.



## CHAPTER 9

### Thinning Hair: What will happen to my hair?

“What gives?”



Hair loss or thinning of the hair (alopecia) is a common side effect of interferon and occurs in up to one third of people on interferon. Interferon affects the hair strands and changes the texture of the hair, which makes it easier to break.

Normally, hair re-growth occurs within three months of stopping interferon. This hair loss is frequently just a subtle thinning of hair, not new areas of baldness!

#### You should know!

Hair loss can occur on all parts of the body (facial hair, arm and leg hair, underarm hair, and even pubic). Hair loss can happen in patches and occur unpredictably in some patients.



Down Side: “My hair got real brittle and treatment made it fall out.”

- Exercise for 30 minutes at least 3 times per week.
- Begin exercising easy, and slowly progress. Activities like walking and gardening count too!
- Consult your primary care physician before starting any exercise program.

#### Relaxation tips

- Try drinking a hot, non-caffeinated tea in the evening. Milk is known to have tryptophan (an amino acid), which acts as a natural sedative.
- Listen to relaxing music or take a hot bath or shower.
- Try aromatherapy: the use of fragrant, concentrated oils from parts of plants, such as their flowers, fruit, stalks, roots, and bark, for the purpose of improving a person’s health and well being (oils, candles, incense, and fresh flowers are some products that are used).
- Learn meditation, Yoga, Tai Chi, or aromatherapy.
- Get a relaxing massage.



Bright Side: “I used a meditation/breathing control exercise for relaxation. . . . You can control your pain psychologically with your mind.”

**Question:** *What are some exercises I can practice to get a better night’s sleep?*

**Answer:** *Here are two GREAT ways to help you catch some Zs:*

**Gentle Breathing: Who knew breathing could be so relaxing!**

Go to a place where you can sit or lie down peacefully. Begin by breathing in normally through your nose, but then exhale back out through your mouth slowly. Think of a word or sound that you find calming and say that word or sound very slowly for about four seconds. Some may recite the word “peace” or “calm,” while others may chant the sound “Om,” (similar to: o-o-h-h-h-m-m-m-m-m-m). Try taking at least 10 breaths each time and try this exercise a few times a day. Once you feel comfortable with this in your home, you can try doing it whenever or wherever you feel stressed (on the bus, waiting at the doctors office, stuck in traffic, etc.) tensing (flexing) and then releasing (relaxing) each muscle group, one by one.

**You Should Know!**

Show your health care provider if you have developed a rash anywhere on your body (injection site, hands, torso, etc.). Most rashes that develop while on treatment are simply annoyances, but some rashes can indicate a problem, that requires specialized treatment or a referral to a dermatologist.



Bright Side: “I followed my provider’s directions to the letter.”



Down Side: “I developed a bad rash . . .”

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**Questions for my health care provider**

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Aveeno<sup>®</sup>, or Lubriderm<sup>®</sup> after showering or washing with soap.

- Do not use harsh soaps, and avoid taking long hot showers, which can dry the skin.
- Wearing loose-fitting clothes made of soft material.
- Keep the dry skin covered! This means wearing gloves, socks, pants, etc. when going outside in bad weather (either really hot or really cold).
- Over-the-counter hydrocortisone cream (1%) may help some more persistent itching.
- Increase polyunsaturated fats in your diet (vegetable oils) such as olive oil and nuts. If skin on hands or feet cracks, apply pure lanolin and wear cotton gloves or socks to bed.

### **Use of Medications**

There currently are some oral medications that may help relieve the itchiness caused by dry skin. Talk to your health care provider to see if it is right for your symptoms.

### **Progressive Muscle Relaxation: Flexing your sleep muscles**

The important part of muscle relaxation is becoming aware when your muscles are feeling tense. You can then use muscle relaxation to loosen or lessen that tension. To use this technique, you practice tensing (flexing) and then releasing (relaxing) each muscle group, one by one. Spend at least 5 seconds tensing and then 5 seconds releasing each group.

If you have chronic pain, progressive muscle relaxation (PMR) does not seek to make it worse but rather to enable you to recognize the difference between tension and relaxation. If tightening a muscle group hurts, you should either back off or stop. The goal is to feel more relaxed, not to increase pain. Begin by finding a comfortable place to sit or lie down.

Start by clenching both fists and feel the tension...hold for 5 seconds. Now relax them slowly... feel the tension leave. Feel the difference now that the muscles are relaxed. Now, tighten the muscles in both your arms. Contract your biceps, hold for 5 seconds...relax them slowly. Then your triceps...now relax. Notice the difference. Repeat one more time.

Point your foot downward until your calf muscles are tight, hold for 5 seconds...relaxing

them.... move up your leg flexing.... hold...relaxing each muscle... up through your thighs... slowly flexing...slowly relaxing. Feel the tension ease. Repeat one more time.

Your arms are relaxed, your legs are relaxed, and your even breathing gives you a feeling of calmness and releases stress.

Pull your stomach in up until your diaphragm feels the pressure. Now... slowly relax... slowly. Feel the tension ease.

Pull your shoulders up to your ears. Feel the tension in your back and chest.

Let your shoulders relax. You are feeling good.

Your heartbeat is easy and restful. Tilt your head backward as far as you can. Stretch the muscles. Feel the tension. Now... slowly... roll your head in a complete circle...stopping at the very bottom. Feel the tension on the back of your neck. Allow it to stretch gently. Now relax. Let the tension go. Feel the tension go. Repeat one more time. Wrinkle your forehead. Hold it. Feel the tension. Now, relax. Feel the tension go. Squint your eyes as tight as you can. Hold it. Now... relax.

Pucker your lips...hold...relax...make a face using all of your face muscles. Hold it. Now relax... slowly... let it go. Your arms are

## Dry Skin: Who gets dry skin?



Dry, itchy skin is called “pruritus” and is very common in people taking ribavirin and interferon. Mild itching and rashes may also occur around the site of your interferon injection or anywhere else on your body.

**You should tell your health care provider as soon as possible if you experience pain, redness, or swelling at the site of injection! This could be a sign of infection.** To prevent infections from occurring, always clean the area well with alcohol **before** injecting your interferon.

**Question:** *What should I do if my skin is dry or irritated?*

**Answer:** *Sometimes curing dry skin can be difficult. While scratching may temporarily relieve the itching, it can cause damage to your skin surface and should be avoided. Common ways to decrease dryness, rash, or itching include:*

- Keeping skin moisturized is most important. Try using a hypoallergenic (non-scented) lotion like Eucerin<sup>®</sup>,

**Be Aware!** About 24% of people on hepatitis C treatment lose weight from not eating enough calories, so watch your weight carefully! If you begin to lose weight too fast, tell your health care provider as soon as possible!

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Questions for my health care provider

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relaxed... your breathing is easy and you feel good all over.

In a perfect state of relaxation you are unwilling to move a single muscle in your body. All you feel is peaceful, quiet, and relaxed. Continue to relax. When you want to get up, count backward from four to one. You will feel relaxed and refreshed, wide-awake, and calm.

**You Should Know**

Try using both of these exercises together for a double-dose of relaxation. Try adding some lavender scent to the air (aromatherapy) and soft, soothing sounds to your ears. With this approach, your senses will be lulled into a peaceful rest and you'll be sawing logs in no time!

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Questions for my health care provider

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Bright Side: "I started swimming a lot. I started to swim and it felt good."



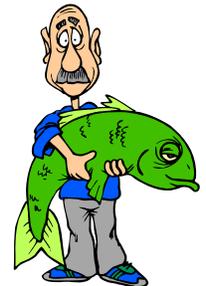
Down Side: "He was having a lot of nightmares."

—A spouse

- Take time to relax while eating and chew your food thoroughly. "Wolfing" down your meal can be enough to cause nausea.
- Buy a cookbook for new and interesting recipes to try.

### Increasing Calories

- Don't be afraid to indulge! Have an extra slice of pie, scoop of ice cream, or add a bagel with cream cheese to your daily snack box.
- When you cook, top food with cheese or olive oil, or stir milk into soups to add protein and calcium.
- Keep foods that are good sources of carbohydrates and protein on hand—things like cottage cheese, yogurt, peanut butter, and oatmeal made with milk.
- Liquid protein drinks, milk shakes, or smoothies may also be helpful as a source of nutrition and calories.
- Always talk to your health care provider before starting a new diet.



## Tips on Improving Your Appetite

- Don't hold back—eat the foods that appeal to you.
- Eat smaller meals or healthy snacks several times throughout the day. Eating smaller meals more frequently is actually more healthful. Don't skip meals!
- Add variety to your diet. Try to spend a few extra minutes preparing your meals so that you are eating food that is appealing and not just “convenient.”
- Try to prepare extra meals and freeze them in re-usable containers for a fast and healthy meal.
- Try not to do any strenuous exercise within 2 hours after eating. While exercising, the body slows the process of digestion to focus on keeping the muscles going.
- Have fun with your eating environment! Eat by candlelight, have a picnic, or invite friends over for a meal.



## Depression: What are my chances of getting depressed?



As many as 35% of patients being treated with interferon will experience depression (see list below and on following page) at some point during their treatment. So far, studies show that you are most likely to feel depressed around the third month of interferon treatment. Depressive symptoms generally improve with antidepressant therapy.

**Question:** *How do I know if I have depression?*

**Answer:** *Symptoms of depression in patients on hepatitis C treatment may include:*

- Feeling sad or moody most of the time
- Irritability
- Feeling worthless or guilty
- Loss of energy or feeling slowed down
- Agitation (feeling restless)
- Loss of interest in favorite activities
- Changes in appetite (weight loss or gain)
- Trouble falling or staying asleep or excessive sleep

- Decreased interest in sex or ability to perform
- Memory impairment or loss of concentration
- Feeling like life isn't worth living



**If you are having thoughts of hurting yourself, please talk to your health care provider immediately or call 911!**

**Be Aware!** Without help, depression may lead you to choose to alter or completely stop your interferon therapy. Stopping your treatment early may lessen your chance of clearing the virus. It is important to discuss any side effects you may be feeling with your health care provider so that the most effective treatment decisions can be made.

**Question:** *What should I do if I am experiencing a symptom of depression?*

**Answer:** *Tell your health care provider!*



**Bright Side:** "I was in a better mood after going on the anti-depressants."



**Down Side:** "On treatment, I got depressed. The depression creeps in so subtly. I didn't notice what was going on.... I couldn't see it myself, sometimes."

## Loss of Appetite: I used to be able to eat the whole thing...



Loss of appetite is fairly common among patients undergoing treatment. If you find that you have mild nausea at particular times, try to eat when you begin to feel better. It is not as important that you eat at a specified time, as long as you make sure you are eating.

There are two primary approaches to dealing with loss of appetite: trying to increase the amount of food you eat by improving your appetite, or by eating foods that are more calorie dense. The tips below will help you with both of these approaches.



**Bright Side:** "I'd never [take] pills without eating something. I had to make a conscious effort to eat healthy."



**Down Side:** "I lost 40 pounds. Everything tasted bad."

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Questions for my health care provider

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Depression caused by interferon may be treatable, but many patients don't inform their provider about problems with their mood. Symptoms of depression usually end by themselves when interferon therapy is stopped. If you experience symptoms of depression during your therapy, it is important that you discuss them with your provider so that they can be treated and do not become worse. Your provider may suggest one of the following:

**Use of Medications**

Your doctor may recommend the use of an antidepressant medication to help improve your moods. Current research suggests that antidepressants can eliminate or reduce depression caused by interferon treatment. Please tell your doctor about any antidepressant medications you are on or have been on in the past.

**Supportive Therapy/Counseling**

For many who experience symptoms of depression, talking to a mental health professional can bring some relief. This may include a psychiatrist, psychologist, nurse practitioner or clinical social worker. Feeling listened to and understood can help improve your mood. These professionals can help you figure out ways to help yourself feel better.

Talk to your health care provider about a referral.

### Other Social Supports and Activities

When you are depressed, you may feel like staying at home in bed. Socializing with others may not seem as interesting as it used to. Maintaining contact with others, however, is especially important if you are feeling depressed. It may take a bit more effort but can actually help you to feel better. Try to stay in contact with friends, family, or spiritual organizations. Do your best to maintain some sort of activity every day, even if it is getting out of bed, taking a shower, and getting dressed. While it may seem difficult to do, you will ultimately feel better.

### You should know!

If you are vomiting or constantly nauseous, contact your health care provider for help!

### Use of Medications

Your doctor may give “anti-nausea” medications to you if you have a case of severe or persistent nausea.

You may want to try an antacid or other stomach aid available over the counter. Please follow the directions carefully on the label and do not exceed the recommended daily dose of these aids.



Bright Side: “Going to those support meetings and listening to other guys in the group . . . meeting guys getting ready to get off treatment and those coming, some people starting the same day as you do . . . it’s helpful. Everyone deals with it differently.”

### You are not alone!

Some patients have reported feeling better from attending



- Keep track of particular foods or smells that cause your nausea. Avoid those foods or smells in the future. To avoid smells from cooking, prepare food ahead of time and store it to eat later.
- Keep bland foods such as milk, yogurt, crackers, ginger ale or lemon-lime soda on hand for settling an upset stomach.

- Eat smaller, but more frequent, meals.



- Take your ribavirin with food.

- Do not skip meals - snack frequently. You may feel more nauseous on an empty stomach.
- Ginger may be helpful for nausea and can be found in ginger tea, ginger ale, and ginger snap cookies.
- Avoid very hot or cold foods; those that are room temperature are more tolerable.
- Avoid smoking cigarettes; if you live with smokers ask them to smoke outside the house.
- Eat fresh fruit. It is often tolerable when you have nausea.

community support groups. Talk to your health care provider to see if there are any groups that meet your needs.



Bright Side: "I pushed a little harder to stay active and keep with the norm. It's easy to hermit out. Stick with people!"



Down Side: "When I did not have goals to do, that's when it affected me the most."



Bright Side: "When I had goals to do, I did not get that depressed. "

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Questions for my health care provider

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## CHAPTER 6

### Nausea: Will I experience it?



Treatment with interferon can cause some people to experience nausea (feeling sick to your stomach or queasy). Feeling sick is not only unpleasant but may interfere with your daily routine and may cause you to neglect taking medications as prescribed. Some people find that their nausea is worst during the first month or so of treatment while your body is adjusting to the new drug.



**Bright Side:** "Diet was critical in treatment. I tried to make sure whatever I ate had nutritional value."



**Down Side:** "I was nauseated mildly a lot of the time."

**Question:** *What can I do if I feel nauseous?*

**Answer:** *Here are a few suggestions to help you with nausea:*

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Questions for my health care provider

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## Irritability: I'm not irritable, am I?



Irritability occurs in approximately 30% of patients taking interferon.



**Bright Side:** "I had learned to remove myself from situations when I got irritated."



**Down Side:** "Treatment was hard. It affected my marriage. My wife ended up calling the police when I got out of hand. I didn't even realize how bad I was getting. I'm a pretty mellow person. I almost lost my marriage."

**Question:** *How do I know if I am irritable?*

**Answer:** *Symptoms of irritability in patients on treatment for chronic hepatitis C are similar to the symptoms of depression and anxiety. These may include:*

- Outbursts of anger (short temper)
- Feeling “cranky” or “on edge”
- Mood swings
- Getting not enough or too much sleep
- Muscle tension
- Change in sexual function
- Problems remembering things
- Difficulty in concentrating
- Road Rage
- Others tell you that you are irritable or impatient

**Question:** *What should I do if I am feeling very irritable?*

**Answer:** *If you experience irritability during your therapy, it is important that you discuss it with your health care provider so the symptoms can be treated and do not become worse. Similar to depression, symptoms of irritability usually end quickly when therapy is discontinued.*

### Use of Medications

Mental health care providers are experts at helping patients manage medications for all sorts of mood problems. Often, they will prescribe a single drug that will treat both depression and irritability. If you feel that your current medicines are not helping, ask your health care provider for a referral to the mental health clinic.



### Other strategies

Exercising may not only help you reduce your fatigue, but it can also help improve your mood and memory. Studies show that the brain makes “natural” antidepressants and painkillers during periods of exercise. It can also be a way to “blow off steam.”

Support groups are not just for depressed people! Many patients have reported less irritability after attending regular meetings!

There may be a class or readings available to teach you skills on how to manage irritability and anger. Talk to your health care provider to explore which options are best for you!

Discuss this potential side effect with your family and employer. Be aware when you feel a temper “flare” coming so that you can control them more effectively.

Try a relaxation technique such as deep breathing.



Downside: “My wife and I called my hepatitis C treatment our year in hell.”