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a series of fact sheets written  
by experts in the field of liver  
disease

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## *HCV Treatment – Side Effect Management: Side Effects*

Alan Franciscus, Editor-in-Chief

**ALMOST EVERYONE WHO USES INTERFERON AND ribavirin notices side effects, some of which are unpleasant. It is important to remember that not everyone experiences the same side effects, nor are they necessarily severe. Some of the treatment side effects are similar to the symptoms of hepatitis C and the same approaches may be used to control both. Fortunately, there are numerous steps people with HCV can take to manage treatment-related side effects, several of which are discussed below. It is highly recommended that people considering treatment develop a good support system prior to starting HCV therapy. Peer support groups, family, and friends can help get most people through the most difficult times during HCV therapy. It is also important that they notify their medical providers if any moderate to severe side effects begin or if they persist over time.**

### *General Tips:*

- If at all possible, take a week or two off work and other responsibilities when you begin treatment (for example, ask for a change in work schedule, a lighter work load, or a medical leave). However, some people find that sticking to a work schedule helps them to work through some of the the side effects. People also comment that work provides an atmosphere that helps them to stay somewhat upbeat and focused.
- Take the weekly pegylated interferon shot before bedtime and prior to a day off; this allows most people to sleep through some of the side effects and have a day or two off to recover, if needed. For example injecting on Friday night allows the weekend to rest and recover.
- Drink plenty of fluids (without caffeine or alcohol); this helps to relieve side effects. It is especially important to drink water or clear fruit juices (apple, cranberry, or grape) right before and right after self-injection.
- Some patients may take an over-the-counter pain reliever one hour before their injection to help relieve side effects. Others may find that taking a pain reliever 2 to 3 hours after the injection works better to relieve the pain. **Caution:** Alcohol and acetaminophen (also called paracetamol) – an ingredient found in many over-the-counter cold preparations – taken together can cause acute liver failure. Tylenol® is a brand of acetaminophen.
- Headaches can often be relieved by rest, massage, or application of heat or cold to the back of the neck.
- Fever can sometimes be reduced by sponging with lukewarm water (do not use hot or cold water).
- Dental care is especially important during HCV therapy. Interferon reduces saliva production which can induce dry mouth resulting in tooth decay and gum disease. Regular dental check-ups and good oral hygiene are very important.

## *Tips for Specific Symptoms:*

### **Flu-like symptoms**

- Use pain relievers as recommended by a physician prior to and after self-injection; drink plenty of clear fluids each day; self-inject at bedtime to sleep through the symptoms.

### **Skin irritation at injection site**

- Rotate injection site; use local topical creams.

### **Fatigue**

- Rest as much as possible.
- Get regular, moderate exercise.
- Change work schedule, if possible.

### **Irritability, depression, anxiety**

- Seek help from support groups, family, and friends; try relaxation techniques; anxiety may be treated with medications recommended by a doctor; depression may be treated with antidepressants (allow enough time – 2 to 8 weeks – to become effective); consider professional help if symptoms become severe.

### **Loss of appetite**

- Eat small meals regularly, even if you have little or no appetite; treat foods as medicine (they are necessary for good health); drink clear juices in addition to water; brush teeth often to help eliminate any metallic taste in your mouth. People say that a SMALL amount of dark chocolate helps to reduce the metallic taste.

### **Weight loss**

- Choose foods that are high in calories and protein; drink clear juices in addition to water for extra calories; try products designed to promote weight gain, such as nutritional supplements, canned formulas, instant breakfast powders, high-calorie puddings, etc.; add ingredients to increase nutritional value.

#### *Examples:*

- Add powdered milk to regular milk, milkshakes, casseroles, soups, eggs, mashed potatoes, hot cereal, and puddings;

- Spread peanut butter on bread;
- Add cooked beans or hard-boiled eggs to soups, casseroles and pasta which already contain cheese or meat;
- Melt cheese on sandwiches, hamburgers, vegetables, rice or noodles.

### **Nausea/Vomiting**

- Take over-the-counter medication for nausea as recommended by a doctor; avoid trigger-foods or odors; avoid foods that are spicy, greasy, or deep-fried; eat small amounts of food every 2-3 hours; during periods of nausea, avoid citrus juices (orange, pineapple, and grapefruit) – instead, try clear juices, ginger ale, weak tea, or sports drinks; eat slowly and sip drinks slowly; eat foods at room temperature (neither very hot nor very cold); if morning nausea is a problem, eat some dry crackers when first awakening and get out of bed slowly.

### **Diarrhea**

- Diarrhea is more common when taking high doses of interferon – ask your medical provider about dose reduction, if appropriate; try medications such as Immodium and bulking agents such as Metamucil or psyllium bran. Be sure to talk with your medical provider about how these agents affect absorption of medications.

### **Dry Mouth/Dental Care**

- Visit your dentist before, during, and after treatment; drink plenty of water or clear fluids (avoid soda, coffee, tea); use artificial saliva; brush and floss your teeth, and rinse your mouth after every meal; use a soft toothbrush.

### **Rashes**

- Moisturize daily with over-the-counter lotions; use oatmeal-based lotions; over-the-counter hydrocortisone creams, oral antihistamines and other anti-itch medications. Avoid perfumed soaps or lotions; apply sunscreen when needed; consult with a dermatologist for more serious skin problems or rashes.

### **Insomnia**

- Use relaxation techniques that include meditation,

warm baths, visualization, and massage; develop consistent routines before going to bed; try over-the-counter medications such as Benadryl, as recommended by a physician. Avoid exercise, vigorous activity, caffeinated drinks or medications that contain stimulants prior to bedtime; consult with a physician for prescription medication if insomnia persists for more than a few days.

### *Some General Considerations:*

The information in this fact sheet discusses a wide variety of side effects that some people may experience while on therapy. It is important to remember, though, that side effects from HCV therapy vary considerably from person to person. Everyone experiences some side effects, but few experience severe or life threatening side effects. While the side effects can be unpleasant, the majority of people can get through treatment if given appropriate care and support. There are even people who feel better while on HCV therapy, but clearly this is the exception and not the rule.

An important part of managing HCV treatment side effects is to be proactive in dealing with the potential sides and to plan well in advance for any potential problems that may come up during therapy or as a result of therapy. This is best accomplished by enlisting the help and support of family, friends, loved ones, employers and health care providers. Prepare others around you well in advance before starting therapy so that you can be assured of their support and care. It is also a good idea to designate at least one person who can watch for anxiety and/or depression and who can contact family and/or medical professionals if the side effects become severe or life-threatening.

Getting through treatment is a process, which may require drawing on every reserve and resource available to you. But remember: it can be done and more importantly it doesn't have to be done alone.

### *Be Sure to Check Out All of the Other Factsheets in This Series:*

- Anxiety, Mania, and Depression
- Dental Hygiene
- Depression
- Depression – For Family and Friends
- Diarrhea
- Hair Loss
- Headaches
- Hemolytic Anemia
- Injection Site Reactions
- Maintaining a Positive Attitude
- Mouth Sores
- Nausea
- Neutropenia
- Rashes
- Taste Changes
- Water
- Weight Loss

**For more information about hepatitis C, hepatitis B and HCV coinfections, please visit [www.hcvadvocate.org](http://www.hcvadvocate.org).**

## • *hcsPFACTsheet* •

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