

# Managing Pain after Burn Injury

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[www.msktc.org/burn/factsheets](http://www.msktc.org/burn/factsheets)

BURN Factsheet

This factsheet explains how to understand and manage your pain as you recover and heal from a burn injury. It describes different types of pain, and medical and behavioral techniques to help you cope.

## Introduction

Pain and discomfort are an unfortunate part of burn injury and recovery. Many of our patients tell us that ongoing pain continues to be a problem long after discharge from the hospital.

Continued pain can interfere with every aspect of your life, including:

- Sleep: pain can make it difficult for you to fall or stay asleep.
- Ability to work: pain can limit your ability to function or concentrate on the job.
- Mood: pain can cause depression and anxiety, especially when the pain is severe and lasts a long time.
- Quality of life: pain can keep you from being able to enjoy time with loved ones or do activities that are meaningful.
- Healing: pain can get in the way of healing if it keeps you from being able to sleep, eat or exercise enough.

### If you are having pain, tell your physician.

Things to remember:

- Burn pain is complex and requires careful assessment by your health care provider in order to find the best treatment.
- Pain management often requires a multidisciplinary approach that may include both medication and non-medication treatments and involve a team of health providers, such as psychologists or physical therapists, working with your physician.
- Pain severity is not necessarily related to the size or seriousness of the injury. Small burns can be very painful, and some large burns not as painful.

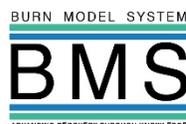
## Step 1: Understanding your pain

There are many different types of burn pain, and each person's pain is unique. Understanding the type, intensity and duration of your pain is important for getting the best treatment.

Your health care provider will ask you about several types of pain:

- **Acute pain:** short-term intense pain that typically happens during a procedure like dressing changes or physical therapy.
- **Breakthrough pain:** pain that comes and goes throughout the day, often due to wound healing, contractures (tightened muscles) or repositioning.
- **Resting Pain:** also called "background" pain that is almost always present, even at rest.
- **Chronic pain:** ongoing pain that lasts for 6 months or longer after the wound has healed.
- **Neuropathic pain:** pain that is caused by damage to and/or regeneration (re-growing) of nerve endings in your skin. It is often described as pain that is shooting, burning, feels like pins and needles or stabbing.

The Burn Model System is sponsored by the National Institute of Disability, Independent Living, and Rehabilitation Research, U.S. Department of Health and Human Services' Administration for Community Living. (See <http://www.msktc.org/burn/model-system-centers> for more information).



You might also be asked to describe the pain in the following ways:

- **Intensity:** how strong the pain is, often rated on a scale of 0–10, with 0 as “no pain” and 10 as “worst pain imaginable.”
- **Duration:** how long it lasts (for example—hours, days, etc.).
- **Timing:** when it gets worse (during the day, night, or during certain activities).
- **Quality:** how the pain feels (for example—stinging, throbbing, itching, aching, shooting).
- **Impact:** how the pain affects your emotions and your ability to do things.
- **Itching:** whether pain is related to itching, which may be a sign that the skin is still healing

Other important information that can help your health care providers plan the best treatments for your pain:

- Your experiences with either acute pain or chronic pain before your burn injury.
- Your experiences with insomnia, depression, or anxiety before or after your burn injury.
- Pain medications you have taken in the past.
- How much your pain limits your ability to do certain things.
- Any activities that make your pain worse or better.

## Step 2: Treating your pain

### Medications

- **Opiates** are the most common medications given in the hospital setting. Some examples are morphine, hydrocodone, hydromorphone, and fentanyl. Opiates may be less effective for chronic pain, however. Side effects, such as constipation and low mood, can also become a problem. Opiates are potentially addictive. For this reason, your physician will help you taper off opiates when appropriate to avoid withdrawal symptoms.
- **Over-the-counter** pain medications such as Acetaminophen and nonsteroidal anti-inflammatory drugs (NSAIDs; ibuprofen and Naprosyn are examples) can be used for long term pain relief. They are not addictive. These medications are effective for treating muscle pain. Use of NSAIDs for long term pain management may cause serious side-effects and should be used only under the supervision of your health care provider.
- **Anticonvulsant medications**, such as gabapentin and pregabalin, have been useful for managing neuropathic pain in some situations. These medications work by changing the way the body experiences pain.
- **Sleep medications:** if pain is interfering with sleep, talk to your physician about sleep hygiene and safe medications for sleep.
- **Antidepressants:** some antidepressants provide pain relief for some people, even if they are not depressed. Antidepressants can also help with sleep. You might talk to your health care provider about trying antidepressants as one way to manage your chronic pain.

### Behavioral approaches

Rarely do medications take away all of the pain. You may also need to use behavioral approaches to help make pain more manageable. A psychologist with expertise in pain management can work with you to find non-medication approaches that can help. These may include:

- **Relaxation:** a burn injury puts immense stress on the body that continues for many months during the recovery phase. This stress causes muscle tension that can increase pain.

Relaxation techniques can be used to lessen the stress placed on your body.

- **Cognitive (thinking) techniques** use the power of your thoughts to relieve stress. These techniques include meditation and a process called “cognitive restructuring,” which helps you change the way you think about your pain and reassure yourself that the pain is temporary and manageable.
- **Somatic relaxation techniques** use physical methods, such as deep breathing, yoga, and progressive muscle relaxation, to relieve tension in your muscles.
- **Hypnosis** has been shown to be a powerful tool in relieving both acute and chronic pain. A psychologist can teach you how to do self-hypnosis so you can include it in your daily routine.
- **Physical activity** can help manage pain. Although it may seem counterintuitive to increase your physical activity when you are in pain, it is important to remember that not all pain is a signal of harm and needs rest. Research has shown that the more physically active we are, the less pain that we have and the more we are able to do. It is important to establish a regular exercise routine as soon as your doctor says it is safe. This will increase function, decrease pain and enhance your mood and self-esteem.
- **Mindfulness Meditation** has been shown to be a very effective treatment for pain. The technique is easy to learn. There are programs online that can guide you in a mindfulness exercise, or you can work with a mental health provider. To get started, simply sit in a chair with your feet firmly on the floor and take some deep breaths. Notice what it feels like to inhale, notice what it feels like to exhale, and notice the quiet space in between your inhalation and exhalation. Count your breaths up to 10 while focusing on what this feels like. If thoughts come into your mind, gently push them aside and continue to focus on your breathing.
- **Pacing of activities:** daily activity and regular exercise are crucial in order to rebuild your strength and stamina and increase your range of motion. But pushing yourself too far can increase your pain.
  - Pace yourself by gradually increasing your physical activity over time. If you are too sore to move comfortably the day after an activity, you have probably pushed yourself too hard.
  - It is best to reduce your activity level until you are more comfortable. This is a difficult balance as burn recovery can be painful, and some pain may be necessary in order to progress to your previous level of function. Work closely with your physical and occupational therapists to set up an activity program that is appropriate for you.

### Step 3: Coping with pain

People have different ways of coping with difficult situations or physical discomfort. Your coping “style” can have a large impact on how much pain you feel or how much the pain bothers you.

In any difficult situation, a person can react by choosing to either change the situation, change themselves, or simply “give up.” The first two options are considered “active” coping styles and are highly effective in managing stress. The third option often results in withdrawal or depression.

Research has shown that it is best to determine how much of the situation is under your control and then pick the appropriate coping style. If the situation is out of your control, changing how you think about and respond to it can be the best coping style. A psychologist can work with you on developing this kind of coping skill.

It is also important to look for aspects of the situation that are under your control. For example, you cannot change the fact that you have suffered a burn injury that has resulted in ongoing pain. “Wishing” the injury had not occurred and dwelling on the “what-ifs” won’t help your pain and may lead to feeling more helpless and depressed. However, focusing on the part of the situation that you can control—such as your own rehabilitation, time spent in physical therapy, doing your daily range-of-motion exercises, and following the pain management strategies suggested by your doctor—can be a highly effective coping strategy.

## For more information

- The Phoenix Society for Burn Survivors  
<http://www.phoenix-society.org/>

## References

Wiechman Askay, S., Sharar, S., Mason, S.T. & Patterson, D. (2009) Pain, Pruritis, and Sleep Following Burn Injury. *International Journal of Psychiatry*. 21(6):522-30

Schneider, Jeffrey C. MD; Harris, Natalie L. RN; Shami, Amir El BA; Sheridan, Robert L. MD; Schulz, John T. III MD, PhD; Bilodeau, Mary-Liz RN, MS; Ryan, Colleen M. MD A Descriptive Review of Neuropathic-Like Pain After Burn Injury *Journal of Burn Care & Research: July/August 2006 - Volume 27 - Issue 4 - pp 524-528*

Ratcliff, S.L., Brown, A., Rosenberg, L., Rosenberg, M., Robert, R.S., Cuervo L.J., Villarreal, C., Thomas, C.R., & Meyer III, W.J. The effectiveness of a pain and anxiety protocol to treat the acute pediatric burn patient. *Burns* 2006; 32: 554-562.

## Authorship

Managing Pain after Burn Injury was developed by Shelley A. Wiechman, PhD and Shawn T. Mason, PhD in collaboration with the University of Washington Model Systems Knowledge Translation Center.

## Factsheet Update

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