



Acute Pain Management



**A Guide to Managing
Your Pain Before and
After a Medical Procedure**



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Introduction

No one likes pain. Any amount is uncomfortable to heal. When sudden and intense acute pain calls for a medical procedure or surgery, such as a joint replacement, it's important to understand how to identify your pain, so you can manage it. This guide is designed to help you do just that.

In this guide, you will learn about:

- Acute pain
- Talking with your doctor and care team about expected pain
- Available drug and non-drug options and any side effects
- Creating a post-surgical pain management plan before leaving the hospital

What is acute pain?

Acute pain can extend up to three months, depending on the type of surgery and recovery time. It can be the result of an injury, such as a broken bone, an infection, or surgery.¹ Acute pain can strike in different ways. You may experience one or more of the following sensations²:

- Sharp pain
- Throbbing
- Burning
- Stabbing pain
- Tingling
- Weakness
- Numbness

Let your doctor know before and after a medical procedure regarding your ongoing pain levels or any sudden increase in pain. Pain lasting longer than three months is considered chronic pain.³

Pre-Procedure

Questions for Your Doctor

After scheduling a procedure or surgery, it's important for you and your health care team to be on the same page about what level of pain you might expect and ways to communicate your discomfort. Start the discussion with these questions:

- **What type of pain can I expect?** Whether it's a minor or major procedure, you should expect to have some level of discomfort afterward. Nearly one in five patients who undergo surgery feels severe acute pain within a day of surgery.⁴ Pain can occur at various times. As you continue to heal, it may come and go in waves or feel more intense during certain times of the day, such as bedtime.
- **How long will my pain last?** Acute pain is felt after surgery within the first week.⁵ While recovery time depends on the type of surgery you get, acute pain is defined as lasting from a few seconds up to three months. Orthopedic surgeries, such as hip and knee replacements, may cause more pain than other types of surgeries.⁶ You may experience pain that lasts longer than one month. You should work closely with your care team and ensure your doctor is apprised of your pain levels and informed if that pain becomes chronic, meaning it lasts longer than three months.
- **What options are available to me to help manage my pain?** When it comes to pain relief, there's no one-size-fits-all treatment plan. Whether it's a prescribed medication, non-drug therapy, or both, what works best for you will depend on your surgery, pain tolerance, existing health conditions, and past medical history. Pain treatment options come with their own risks, which you should discuss with your doctor. See the sections on Drug Pain Relief and Non-Drug Pain Relief.

Questions for You

To find the best pain management plan for you, your doctors will need to know your medical history. The more they know, the more they can avoid roadblocks to healthy healing. Some of the questions health professionals may ask you can include:

- **What medications are you on now?** A doctor or nurse will ask you what current prescription medications or over-the-counter drugs you take, if any. If you do, tell them how often you need them and what they treat. Once your health care team knows your medications, they can figure out what's safe or unsafe to take if you pursue drug therapy for pain relief. In some cases, your doctor may adjust or replace your regular medications before and after your surgery to avoid potential interactions.

The below chart can help you and your health care team keep track of what you're taking:

What Medications Are You Taking?	What Is It For?	How Often Do You Take It?	How Long Have You Been On It?

- **What’s your experience with pain relief?** Expect questions about how much pain you can handle. Be honest as everyone’s threshold for pain is different. If you’ve used drug pain relief in the past, expect questions about how you felt while taking certain drugs. If you’re still using drug pain relief now, you may be asked whether you have chronic pain or if you’ve ever developed an addiction.
- **Do you have any past or current alcohol or substance use issues?** Given the risk of addiction with some drug pain relief, your doctor will want to know your relationship with substances like alcohol, illicit drug substances, or opioids and other prescription drugs that may be habit forming.⁷ Expect questions about whether you’ve been treated for substance abuse or addiction, and if you’re currently in treatment. Past or current drug use could have long-term health effects. Having this knowledge helps a doctor know what they can safely prescribe. Keeping your doctors informed keeps you safe.
- **What can I do now to reduce future pain?** Talk to your doctor about how to stay active by improving strength, balance, and mobility before your procedure, as it may help reduce future pain and improve the recovery process.⁸ Certain exercises may be recommended, depending on your individual needs, medical history, and the procedure you plan to undergo. With any exercise plan, make sure to talk with your doctor about the safe level of exercise to do prior to your procedure and what may require the help of a specialist such as a physical therapist. Some ways to get moving include⁹:

 - **Balance exercises:** Incorporate regular balance exercises into your day. You can start out by holding onto a countertop or sturdy chair until you don’t need one. Examples include:
 - **Single-leg stands:** Hold one knee to your chest and try to balance on one leg for at least 30 seconds.
 - **Standing march:** Raise one knee to your hips, then the other, in a repeat motion for 30 seconds a few times a day.
 - **Heel-toe walk:** Walk 10 steps heel to toe in a straight line while looking straight ahead. Alternate which leg you start with.

- **Gentle resistance training:** Resistance training is any exercise where you're pushing back against the force of gravity, such as doing a pushup. There are simple movements you can do at home such as¹⁰:
 - **Mini squats:** Hold the back of a chair, spread your feet just beyond your hips and gently bend your knees until they're over your toes. Rise gently and repeat five times.
 - **Sideways leg lift:** Hold the back of a chair and raise your right leg as high as you feel comfortable, while keeping your back straight. Alternate with your other leg so that you raise each five times.
 - **Wall press-up:** Extend your arms toward the wall and place your hands flat against it. As if doing a half-pushup, slowly bend your arms toward the wall while keeping your back straight. Push away from the wall and repeat.
- **Walking:** You may want to try walking at least 30 minutes a day, five days a week, around your neighborhood or local walking trail unless a doctor asks you to change how long you walk based on your mobility.¹¹

Post-Procedure

The days and weeks following your procedure will reveal just how your pain affects your ability to carry out everyday tasks, like grocery shopping, or activities of daily living, like bathing and getting dressed. There are different ways to help you clearly describe your pain level, which will help your health care team choose the best drug and non-drug therapies to help you manage it.

How can I describe my pain?

A common way patients describe their pain is by rating whether it's mild, moderate, or severe based on a scale of 0 to 10.¹² Based on the scale, you would indicate if you have no pain or rate mild pain from 1-3, moderate pain from 4-6, and severe pain from 7-10.¹³ To better understand where you fall on the scale, see how your pain matches with the descriptions below¹⁴:

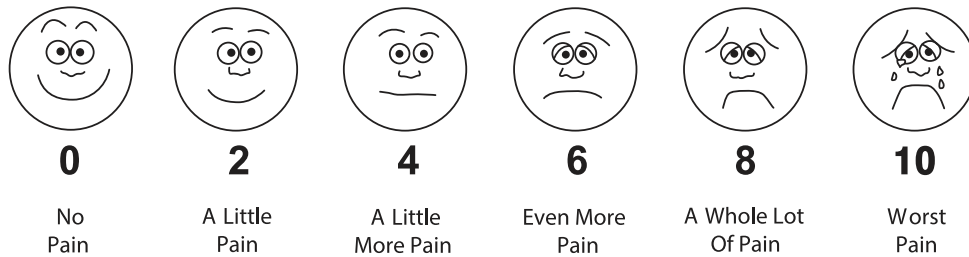
Mild: I feel some pain but can still function

Moderate: My pain is bothersome/getting in the way

Severe: I can't function or focus on anything

Another way you can describe your pain is by using the Wong-Baker FACES Pain Rating Scale.¹⁵ Each facial expression is paired with a number to rate your discomfort. Just pointing to a face can help your doctor understand your pain level.

The Wong-Baker FACES Pain Rating Scale: This scale evaluates only pain intensity. Sometimes a face expresses your pain better than a number.



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Wording modified for adult use.



Drug Pain Relief

Talk to your doctor if you have any questions about drug choices.

NONOPIOID DRUGS

Opioids can sometimes be replaced with nonopioid medications and block pain during and after surgery. A doctor can discuss with you the options and discuss any side effects. Some nonopioid drugs can also be found over the counter or at a drug or grocery store and can be obtained without a doctor's prescription. Without a doctor's guidance, these drugs still have the potential to do harm.¹⁶

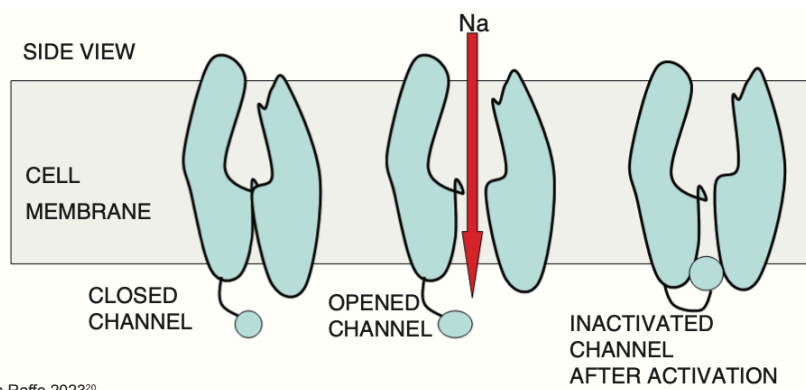
Level of pain: Moderate to Severe

Selective Sodium Channel Blockers

Medications that act by sodium channel blockade are used in the treatment of pain.¹⁷ They work by binding to and blocking the sodium channels in cell membranes that allow sodium ions to pass through thereby decreasing cell signaling.¹⁸

Side Effects: Common side effects can include nausea, constipation, headache, dizziness, hypotension, and vomiting.¹⁹

Figure 1: How Channel Blockers Work



Adapted from Raffo 2023²⁰

Level of pain: Mild to Moderate

Nonsteroidal Anti-Inflammatory Drugs (NSAIDs)

NSAIDs work by stopping the proteins that cause inflammation in your joints.²¹ NSAIDs often come in tablets or pills. Common ones, such as ibuprofen, aspirin, and naproxen, are available over the counter, while some NSAIDs may only be available through your doctor's prescription.²²

Side Effects: NSAIDs can be rough on your stomach. Long-term use puts you at risk to experience side effects such as heartburn or stomach pain, as well as stomach ulcers.²² NSAIDs can be risky for older adults with chronic conditions including kidney disease and can potentially result in kidney damage or worsen symptoms in patients with these diseases.²³

Non-Selective Sodium Channel Blockers

Non-selective sodium channel blockers work to dull pain at its source and may be used for neuropathic pain. Lidocaine is a non-selective sodium channel blocker that is available in many forms for application to your skin for pain relief. These forms include aerosol, cream, gel lotion, patch, or spray and may be available over the counter.²⁴ Your doctor may also prescribe lidocaine.²⁵

Side Effects: Common side effects are itchiness, redness, and swelling.²⁶ Allergic reactions to lidocaine are rare, but you should seek emergency care immediately if you feel dizzy, struggle to breathe, or experience swelling in your lips or tongue.²⁶

Gabapentinoids

Gabapentinoids are a class of drugs that calm down the nerve cells, including ones that tell your brain that you're in pain.²⁷ Gabapentinoids require a doctor's prescription. They are available as tablets, capsules, or oral solutions and can be an alternative to prescription opioids.²⁷

Side Effects: The most common side effects include dizziness, tiredness, fever, headache, nausea and vomiting, reoccurring infections, memory loss, weight gain, and movement problems.²⁷ Risks of side effects may also be higher for older adults with existing heart, kidney, or liver health issues.¹⁵ Serious side effects include negative changes in your mood or behavior, such as suicidal thoughts, and signs of allergic reaction such as skin rash and difficulty breathing.²⁸ If you're having trouble breathing or have considered self-harm, seek emergency care. It is also important to note that gabapentinoids may be habit forming, for example, pregabalin is considered a controlled substance.²⁹

OPIOIDS

Level of pain: Moderate to Severe

Opioids are a class of drugs that relieve pain by binding onto the nerve cells in your body and in your brain that work to tell your brain that you're in pain.³⁰ They are typically taken as a tablet, capsule, or liquid solution.³¹ They should only be taken as prescribed by your doctor.

Side Effects: Opioid use can result in feeling nauseous, drowsy, or dizzy.³¹ Symptoms include constipation, trouble breathing, and risk of accidental overdose.³¹ There is also the risk for liver damage when combined with acetaminophen.³² Unlike other drug pain relief options, there is an increased risk of developing an addiction and long-term dependence on opioids.³³

Non-Drug Pain Relief

Level of pain: All, may be in combination with drug relief depending on severity

Rehabilitation

Rehabilitation, such as physical therapy and occupational therapy, can help you return to the daily tasks you did before your surgery or adjust to a new normal with less pain.

A physical therapist will evaluate your medical history and pain profile to create a plan that includes guided stretches plus strength training.³⁴ Your physical therapy may begin in a hospital or outside clinic and may include other interventions such as massage, acupuncture (see below), or heat and cold therapy (see below).

An occupational therapist will learn what a typical day is like for you and create a series of safe exercises and tasks that help you do things like drive, shop for groceries, or get dressed with less pain.³⁵

Heat and Cold Therapy

Heat can relieve muscle pain while colder temperatures reduce swelling and inflammation.³⁶ With heat therapy, if you want to use a heating pad, ask your doctor which brand is best for temperature control to reduce your risk of burns.³⁷

Exercise

After your procedure, your doctor may recommend a series of exercises that improve both your cardiovascular and muscle strength.^{38,39} This could include light walking, balance exercises, or using exercise equipment such as a resistance band.⁸ If you require a physical therapist, they may incorporate or recommend safe exercises and movements to do in a clinic setting or at home.⁴⁰

Acupuncture

Acupuncture is a form of Chinese medicine where a certified acupuncturist places thin steel needles throughout different acupressure points on your body.⁴¹ The needle placement sends signals to your nervous system to release endorphins, which are hormones that can help relieve muscle and joint pain.⁴¹ Some physical therapists are also certified to perform acupuncture.

Meditation and Mindfulness

Meditation involves using mental exercises to clear your thoughts and shift your energy away from your pain. There are different types of meditation that may ask you to focus on a certain emotion or repeat an encouraging phrase like a mantra to feel calm.⁴²

One type of meditation is mindfulness. Mindfulness involves being aware of your physical pain and how it makes you feel, followed by accepting that pain and letting it go.⁴³ Ask your doctor for referrals to psychologists or other experts to guide you.

Relaxation Exercises

Relaxation therapies use one or a combination of sensations such as sights and sounds to focus away from your pain. A common example is guided imagery, in which you lie down or sit quietly and imagine yourself in a calm setting like a forest or beach.⁴⁴ A specialist may also help you change how you visualize pain and replace it with a more positive feeling.⁴⁵



Did You Pack Your Pain Relief?

Depending on the procedure, while you may receive some drug pain relief after your surgery, it's best to plan for what prescription medications you'll need prior to your surgery and how to get them to avoid any delayed relief. Before you leave the hospital, follow these tips for a smoother recovery back home:

- Ask your doctor to place a prescription for any medication you may need with your local pharmacy before you're discharged from the hospital.
- Make sure your doctor has your pharmacy's correct address and phone number. The sooner you do this, the sooner you'll learn if there are any health insurance issues with filling your prescription or if another location carries what you need.
- Talk with your doctors about the proper ways to take any medicines or perform other prescribed therapies before you are discharged. Ask to have instructions written down. When it comes to medications, make sure you, your doctor, and the pharmacist are on the same page about:
 - Your recommended dose
 - The maximum dose you can take in one day
 - How often you take a dose
 - Whether you take with food or water
 - How to safely dispose of extra medication
- Ask a family member or friend if they can be available to pick up any prescriptions or over-the-counter drugs, if necessary.
- Pay attention to how and where your prescription medication and over-the-counter medicine(s) should be stored, so they aren't damaged.

What if My Pain Is Still Lasting?

A good pain management plan should give you the tools you need to handle discomfort as you heal while allowing you to complete everyday tasks.⁴⁶ But remember, acute pain is pain that lasts from a few seconds to less than three months and is usually associated with actual or threatened tissue injury.⁴⁷ If your pain lasts longer than anticipated, feels unbearable, or you have any questions or concerns, it's time to talk with your doctor about other ways to safely manage your pain moving forward. To give your doctor the full picture, ask yourself the following questions⁴⁸:

- How severe (from 0-10) is my pain at its worst, best, and right now?
- What makes my pain better or worse?
- Which words describe my pain? (e.g., throbbing, burning, sharp, dull, stabbing)
- Where does my pain hurt the most? Where does it go from there?

Conclusion

Understanding your acute pain is the first step in finding a pre- and post-procedure pain management plan that gets you back to your normal routine. Whether your acute pain relief involves medication prescribed by a doctor, guidance offered from a pharmacist, or exercises recommended by a physical therapist, the road to healing is paved with honest conversations with your care team. Staying informed about your options while staying ahead of post-procedure challenges can put you on the road to recovery.

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