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Prevention. Treatment. Recovery.

TOOLKIT

PEDIATRIC SURGICAL PAIN MANAGEMENT TOOLKIT

FOR FAMILIES



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TOGETHER WE CAN MAKE A DIFFERENCE

This toolkit focuses on prevention of opioid related complications in children and adolescents by intervening at the point many are first introduced to them: when acute pain is treated after surgery.¹

Surgery can be stressful for both you and your child. This is natural and expected, and some of this comes from worry about the pain after surgery and how it can be managed. These tools will help you talk to your surgeon about pain before your child's surgery and manage your child's acute, or short-term pain following their operation.



Pain tells your child that their body is healing and that they might need to balance activity with rest. It is an uncomfortable but natural part of recovery. The amount of pain, how long it lasts, and when it peaks varies based on the procedure that the child has. Each child can have a different emotional response to pain as well, which changes their pain experience.

Disclaimer: This information is not meant to be applied in cases of chronic pain in children.

PREPARING FOR YOUR CHILD'S SURGERY

Every child recovers from surgery in their own way, and kids who have the same procedure might have completely different experiences of pain. In most cases, the pain will not be long-lasting and will get better with time and healing. This is called **acute pain**. The goal with acute pain is to manage it in a safe way, so children can heal and recover well. This does not mean that your child will have no pain, but that your child's pain should be tolerable. They should be able to drink, eat, and sleep as best as possible given their post-surgical condition. Pain can be managed using both **medication** and **non-medication options** as part of a larger pain management plan to be discussed with your surgeon.



UNDERSTAND EXPECTATIONS AROUND PAIN AFTER SURGERY

Talk with the surgeon:

Getting answers to questions like these can help you navigate your child's recovery with confidence. If your surgeon is using medical language that you don't understand, ask them to rephrase it using common language.

- What level of pain is typical after this surgery?
- When should I expect the pain to improve?
- When should I be concerned if the pain doesn't improve?
- What can I do to help the pain improve? Will over-the-counter medications such as Tylenol® (acetaminophen) and Motrin® or Advil® (ibuprofen) be recommended, and will you provide dosing instructions for them? Should I use them only if needed or on a schedule? Should I get them before surgery?
- Do you recommend prescription medication such as an opioid for my child?
- How much will you prescribe and at what dose? What are the risks of using an opioid?
- If I choose not to fill an opioid prescription for my child, will you honor that decision?
- If I don't get an opioid prescription after surgery but then need it during recovery, how difficult is it to get later?
- Does the hospital have Child Life services who can offer preoperative experiences including tours and websites explaining the surgery process?

Be sure to mention:

- If your child has risk factors for opioid addiction, including depression, anxiety, current medication use, prior opioid misuse, or a family history of addiction
- If your child has increased anxiety about their surgery
- Any other concerns you may have about your child having surgery



**Downloadable
Resource: Planning For
Surgery
and Pain Management
Worksheet**

Making a plan before surgery about how you might address pain can help with recovery and pain control. You should consider both medications as well as non-medication options that have worked well in the past.

PREPARE WITH YOUR CHILD

Preparing for surgery together is important to help your child's surgical experience and recovery go smoothly. Have age-appropriate conversations with your child about their planned surgery and what to expect. Consider your child's anxiety level when talking to them about surgery.

- **Let your child guide the conversation:** Answer their questions as best as you can, using simple language they can understand.
- **Choose the right time:** If your child is anxious, it may be better to wait until a few days before surgery to discuss it with them, as their anxiety may grow as they wait. It is still very important to talk with them about surgery before the event, so they can be prepared.
- **Check what resources your surgeon or hospital may have** to help you prepare your child. Read stories of similar experiences – [Thump! Ouch!](#) is a book about a child who gets hurt and needs to go to the hospital. You can also watch videos as an example – [Preparing for Surgery at Mott Children's Hospital](#).
- **Encourage feelings of security:** Remind your child of the things that will stay the same despite the changes that happen with surgery and recovery. Some of these stable things include family, home, their room, pets, and their school. Help your child keep an attitude that is adaptive, flexible, and hopeful.
- **Don't be afraid to talk about pain:** Help your child understand that you and the medical team will work to manage their pain as best and safely as possible. Be honest and positive. This will help your child have realistic expectations about their pain following surgery. Review the reasons for your child's surgery, and remind them that the surgical pain will be temporary.
- **After surgery, you might be invited to join your child in the recovery area.** This will depend on your hospital's policy. Know that some children are very upset when they first awaken. This can be a consequence of the anesthesia itself rather than pain. Your child's recovery team is best equipped to manage this and can answer any questions you may have.

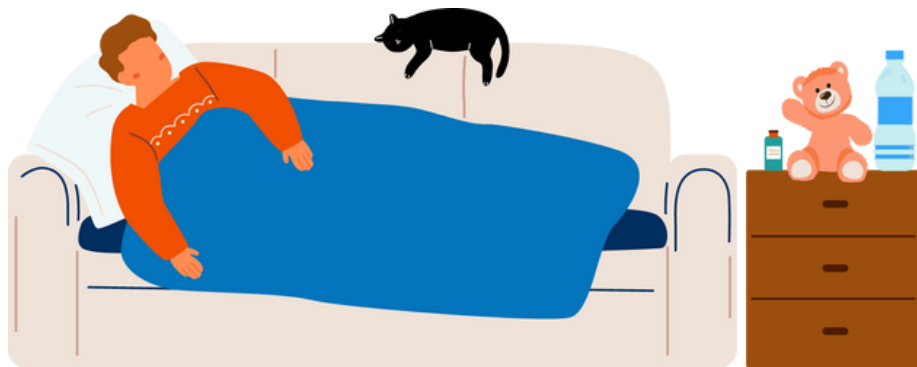
CREATE COMFORT AT HOME

Your goal is to support your child and help them be as comfortable as possible. How will you know if your child is in pain? Ask them and watch them. You know your child best and can pick up on any signs that they're in distress.

Pain might affect their sleep, appetite, and mood. They might wake up more often at night, not want to eat or drink, cling to you, or withdraw from you. For young children, it can be difficult to understand why they are having pain. Encourage and support them. Each child is unique, and their recovery may be different from another child's. Use what you know about your child to help them recover.

Prepare Your Recovery Space

- Purchase the over-the-counter medications (Tylenol®, Motrin®, Advil®) that your care team has recommended to use at home.
- Buy food and drinks that your care team recommends.
- Gather things such as toys, music, books, and technology to be used for distraction after surgery.



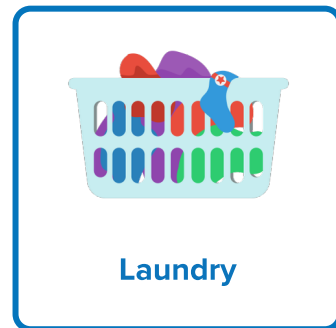
Prepare For Time Away From School

Your child may be at home and away from school or daycare for a period of time following surgery and may require your full-time care while they recover. If your child will miss school, communicate with their teacher before surgery to come up with a plan for their missed homework. If your child is anxious, this will also help reassure them that they won't fall behind in their work.

GET SUPPORT IF YOU CAN

Take good care of yourself, so that you are able to care for your child. Remember: pain is a typical response to surgery, and if your child has pain, this is the body's natural way of recovering. If there are other members of your household who rely on you for care, try to create a plan that allows you time to focus on your child's needs after surgery. Be sure to consider your own concerns about your child's upcoming surgery and possible pain. Work to manage these, so you can be a calm, healing presence for your child.

Understand that if your child isn't sleeping well, you probably will not be sleeping well either and may need support. Do not be afraid to ask for or accept help from others. Make a list of things that you could use help with, including:



NON-MEDICATION PAIN MANAGEMENT

Helping children manage pain and discomfort involves more than just medicine. Non-medication strategies play an important role in managing pain and reducing anxiety. Simple, comforting tools, like mindful breathing, music, special foods, or time with family, can help reduce anxiety, ease pain, and promote healing. These approaches can be used alongside the medications your surgeon has recommended and may even reduce the need for opioids and their potential side effects.

Give these a try to help manage pain after surgery:



Mindfulness

Practicing calm breathing, like belly breathing or square breathing, can help to relax muscles that are tensed because of pain or anxiety. Your child can use their imagination to visualize a place that makes them feel calm, relaxed, and comfortable.



Special Foods

Special foods, such as ice cream or popsicles, can distract your child from their pain by giving them something enjoyable to think about.



Art

Art can be a tool for positive coping, a distraction from pain, and an outlet for your child or teen to communicate their feelings.



Music

Music may be very comforting when your child is experiencing pain or discomfort. Listening to music, singing, or writing songs can help lessen pain and anxiety.



Games & Play

Keeping your child's mind focused on something else can help reduce their awareness of pain. Helpful distractions can include toys, board games, video games, or movies.



Books

Reading children's books about surgery and emotions can help your child understand their own pain and feelings better. This may give them a sense of control and decrease their anxiety. Reading your child's favorite books and stories together can also comfort them.



Family Time

Many children are reassured by the presence of their family. Spend time with your child and be a calming presence for them. Some children are relaxed by gentle touch and massage, which can help reduce pain.



Sleep

Sleep helps the body heal. Allow your child to get the best night's sleep possible by getting them to bed at their usual time and providing a relaxing and calm environment.

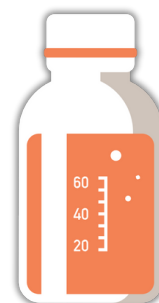


Food & Hydration

Make sure your child is drinking enough fluids and eating as normally as possible while being mindful of any restrictions from your surgeon. Dehydration can worsen recovery and increase pain.

NON-OPIOID PAIN MEDICATION

Your child's surgeon may recommend using over-the-counter medications (available without a prescription) such as Tylenol® (acetaminophen) and Motrin® or Advil® (ibuprofen). Tylenol® and Motrin® each work in different ways to manage pain. They can be given together.²



Give the dose your doctor recommends:

It is important to use the dose your surgeon recommends even if it is different from the dose listed on the medication bottle. The dose on the bottle is based on age, but dosing based on your child's weight may manage pain better.

Your team may recommend using these medications on a regular basis ("around the clock") to manage pain. This means giving your child the medications on a set schedule during the day and even at night. Ask your surgeon what dosing schedule to follow, as well as how to give the medications.

NOTE: Other medications may also contain acetaminophen. Check the labels on any medications you're giving your child (such as a prescription opioid medication) to make sure they aren't already receiving acetaminophen.

Let your care team guide you:

While these medications are usually alternated for management of fever, for pain they can be given together. If you give both Tylenol® and Motrin® together (at the same time), this decreases how often you need to give the medication and can be simpler. Follow the instructions your care team gives you in terms of how to use these medications and for how long. If taking the medications at the same time isn't working well to control the pain near after 6 hours, consider alternating the medications. See sample schedules on the following page.

SAMPLE SCHEDULES: PAIN MANAGEMENT MEDICATIONS

Scheduled every 6 hours taken together

8 AM	Acetaminophen and Ibuprofen
2 PM	Acetaminophen and Ibuprofen
8 PM	Acetaminophen and Ibuprofen
2 AM	Acetaminophen and Ibuprofen

Scheduled every 6 hours alternating

8 AM	Acetaminophen
2 PM	Ibuprofen
8 PM	Acetaminophen
2 AM	Ibuprofen

Keep track of medications:

Keeping track of the medications taken is important. This will allow you to manage the pain safely without using more medication than is advised. As with any medications, there are possible serious side effects if used more frequently or at higher doses than prescribed.

You can keep track of medications by making notes on a medication log or on your phone. Write down the name of the medication, the time you gave it, the amount you gave, and when your child can have the next dose. Share this information with anyone else who is also caring for your child, so a dose isn't accidentally given twice.



**Downloadable
Resource: Medication
Tracking Log**

Help keep track of the use of medications
your child is taking after surgery.

TIPS FOR GIVING MEDICATION SAFELY



Check

For liquid medications, check the concentration on the bottle to make sure you're giving the correct milligram-based dose.



Comfort

Have a positive attitude. Be calm, honest, and empathetic but remain in charge. Explain why the medication is helpful.



Measure

Only use an oral syringe or medication cup to dose correctly. You can buy these at your pharmacy if they do not come with your medication.

- Household spoons are not accurate to measure medications.



Praise

Give your child praise when they take the medication. Some children respond well to a small reward such as a sticker or a chart that leads to rewards.



Adapt

If your child resists taking the medication, use the syringe to squirt small amounts of medicine into the side of their cheek. This prevents gagging and your child is less likely to spit out the medication.

- Be careful if you are mixing medication with a food your child enjoys in hopes of making it easier for them to take. If you do this, only mix the medication into a small spoonful of food. Otherwise, if they don't finish it, you won't know how much medication they took.



Consider

Ask your pharmacist if you can refrigerate the medication, as the cold temperature may make it easier for your child to take.

- Sucking on ice chips or a popsicle first will also dull the taste of the medication. You can also follow the medication with a cold drink of something they enjoy.
- Motrin® can cause stomach upset if taken without food. If possible, give with food or milk.

OPIOID MEDICATIONS

Opioids are strong prescription pain medications with the potential for serious side effects and complications. Common opioid names include oxycodone, hydrocodone, morphine, and codeine. Some opioids already contain acetaminophen. If this is the case, your child may be unable to take over-the-counter acetaminophen with the opioid. Check the label and discuss this with your pharmacist.



Use opioids for breakthrough pain:

To address acute pain, start by using non-medication strategies and non-opioid pain medications. Together, they are often enough to manage your child's pain. In some cases, your child may have breakthrough pain, which is severe pain despite using non-medication strategies and non-opioid pain medications. Opioids can be used to manage breakthrough pain after surgery.

If your child receives a prescription for an opioid, it should usually only be used to manage their breakthrough pain. Know that even if you are using an opioid for breakthrough pain, you should still also use non-medication strategies and non-opioid pain medications. This will allow you to use as little of the opioid as possible.

Opioid side effects

Anyone who uses an opioid is at risk for these side effects:



**Nausea and
vomiting**



Constipation



Itching



Sleepiness



**Slowed
breathing**



**Impaired motor skills,
thinking, or judgment**

Children who are overweight or have obstructive sleep apnea or snoring have a higher risk of sleepiness or slowed breathing from an opioid.

**Do not use opioids to help
your child sleep.**



OPIOIDS HAVE REAL RISKS

Anyone who uses an opioid, even for a short time, is at risk for dependence, tolerance, misuse, addiction, and overdose. Adolescents are especially at risk for opioid misuse and addiction because the parts of the brain that control impulsiveness and decision making are still developing.³ In addition, peer pressure can also affect their behavior. Other factors that increase the risk of opioid use disorder include personal history of depression and/or anxiety and family history of substance use disorder.

Tolerance

When an opioid no longer has the same effect on your child's pain as it first did, which means they need a higher dose to control pain. For example, if your child is taking an opioid which first worked well for pain, and then later it doesn't work as well, it does not always mean the pain is worse. Instead, your child may have become tolerant to the opioid.

Dependence

When your child's body has started to rely on the opioid to function. This can happen even with using an opioid for a short time period, but the longer your child takes an opioid, the higher the risk. This is one reason why it is important to use an opioid for as short a time as possible. Suddenly stopping an opioid when a person is dependent causes symptoms of withdrawal, such as muscle aches, yawning, runny nose and tearing eyes, sweating, anxiety, difficulty sleeping, nausea/vomiting, and/or diarrhea.

Misuse

When your child takes the opioid they were prescribed at a higher dose, more often, or for reasons other than which it was prescribed.

Addiction

When your child develops a medical disorder known as Opioid Use Disorder (OUD). People with this condition seek and use opioids even though they are causing them harm.

Overdose

When your child takes a dose of medication that is too high for them. This affects breathing and can cause your child to stop breathing.

Diversion

When anyone other than your child gets and uses the prescribed medication. This can happen when you do not safely dispose of an opioid or leave it unattended. Diversion is dangerous because it can lead to misuse, overdose and/or opioid use disorder in others. Sharing or selling an opioid is a felony in the state of Michigan.

REDUCE OPIOID RISKS

Use these strategies to reduce risks associated with opioids:

- Tell your doctor about any other medications your child is taking and if your child has a history of opioid misuse or addiction, depression or anxiety, or a family history of addiction.
- Do not use opioids along with antihistamines such as Benadryl or sleep medications.
- Only use the opioid for the reason, dose, and frequency that it was prescribed, and use it for the shortest possible time period. If your child doesn't need it, don't use it and dispose of it properly.
- Write down what medications you're giving your child and when. This will help you be sure you're using the medication only as prescribed.
- Double-check dosing to make sure you're giving only the amount prescribed.
- Watch your child for signs of side effects or complications, and if you notice them, contact your provider.
- Lock the opioid medication in a safe place. If you cannot lock it up, keep it out of common areas of the house.
- Do not share your child's opioid with anyone else. It is a prescription only for your child.
- Dispose of any remaining medication in a safe way when your child has recovered. Keeping an opioid prescription in your home is risky. Children may accidentally take it and overdose, and others may find it and misuse it. Ask your pharmacy if they have home drug deactivation/disposal kits to give you so you can safely dispose of your medication.

RESOURCES

STORE OPIOIDS SAFELY

It is important to store opioids out of sight and reach of children, teens, and pets. Safe storage prevents accidental opioid use or misuse.

- Store opioids in areas only you have access to.
- Lock up your pills if possible (like a drawer or box).
- Do not store your opioids in common rooms in the house or in purses.

Learn more about safe storage and disposal at

<https://michigan-open.org/initiatives/safe-storage-and-disposal/>

ADDITIONAL RESOURCES

- How opioids specifically affect teenagers: [National Institute on Drug Abuse](#)
- About opioids and their risks: [Centers for Disease Control and Prevention](#)
- How to talk to your child about surgery: [Children's Hospital at Dartmouth-Hitchcock](#)
- Three- to five-minute videos from the Pediatric Trauma Group at C.S. Mott Children's Hospital on medication safety and non-medication options for pain management in [five- to eight-year-olds](#) and [eight- to 12-year-olds](#).
- A [website](#) created by the Pediatric Trauma Group at C.S. Mott Children's Hospital focused on medication safety.

Pediatric Pain Management

- More details
- Educational courses
- Printable resources

<https://michigan-open.org/pediatrics-pain-management/>



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AUTHORS AND CONTRIBUTORS

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At OPEN (Overdose Prevention Engagement Network), we work with physicians, public health experts, policymakers, and payers to positively impact the opioid epidemic through improved prescribing and pain management. OPEN aims to prevent opioid-related harms throughout the state and beyond through data-driven research, evidence-based pain management recommendations, development of education and resources for patients and providers, and community engagement. Visit michiganopen.org for the most up to date recommendations, educational materials, and resources.

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www.mottchildren.org



www.pediatric-trauma.med.umich.edu

University of Michigan Health C.S. Mott Children's Hospital

The University of Michigan Health C.S. Mott Children's Hospital, a Level 1 Pediatric Trauma Center, cares for the most seriously injured children. Our work involves educating children and adults, advocating for effective laws, providing reduced cost safety products to low-income families, conducting research, and creating safe environments. In addition, we provide a wide range of educational injury prevention programs and outreach events for children, parents, and community members, such as car seat installation tutorials and infant safety classes

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