

# Making Better Possible: OPIOID-MINIMIZING POSTSURGICAL PAIN MANAGEMENT WITH **EXPAREL**<sup>®</sup> (bupivacaine liposome injectable suspension)

**Educating patients about postsurgical pain management** should start before surgery and continue after their procedure to set appropriate expectations for recovery.

It is important for patients to know that their health care provider has chosen an opioid-minimizing pain management strategy that includes EXPAREL.

Visit the [EXPAREL for Nurses Page here](#)



**13+ MILLION PATIENTS  
AND COUNTING**

**The First and Only  
FDA-Approved  
Long-Lasting  
Local Anesthetic  
for Ages 6  
and Above**

## Indication

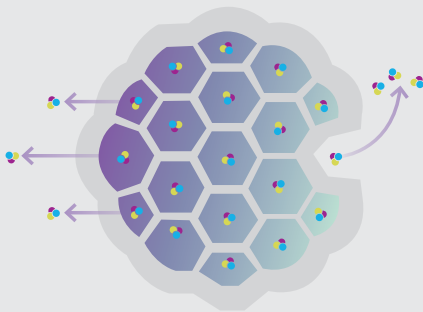
EXPAREL is indicated to produce postsurgical local analgesia via infiltration in patients aged 6 years and older and regional analgesia in adults via an interscalene brachial plexus nerve block, sciatic nerve block in the popliteal fossa, and an adductor canal block. Safety and efficacy have not been established in other nerve blocks.

Please see [Important Safety Information here](#) and refer to full Prescribing Information, which is available at [www.EXPAREL.com](http://www.EXPAREL.com).

## ABOUT EXPAREL & HOW TO USE

### ► EXPAREL uses proprietary multivesicular liposome (pMVL) technology to provide long-lasting, non-opioid, postsurgical pain control

pMVL technology is an advanced drug delivery platform that encapsulates drugs without altering their molecular structure and then releases them over a desired period of time.<sup>1</sup>



**DESIGNED**  
to deliver controlled levels of bupivacaine<sup>1</sup>

**COMPOSED**  
of naturally occurring, biocompatible lipids<sup>2-4</sup>

**ENCAPSULATES**  
bupivacaine in a suspension of multivesicular liposomes

**RELEASES**  
bupivacaine over time<sup>1</sup>

### ► EXPAREL administration

- EXPAREL is a long-acting local anesthetic to manage postsurgical pain for the first few days following surgery<sup>4</sup>
- EXPAREL is administered by a surgeon or an anesthesia provider via surgical site infiltration, as a field block (ie, transverse abdominis plane [TAP] block), or, in adults, as an interscalene brachial plexus nerve block, a sciatic nerve block in the popliteal fossa, and an adductor canal block to produce postsurgical regional analgesia, as part of a multimodal or enhanced recovery protocol<sup>5</sup>
- Bupivacaine HCl is often admixed along with EXPAREL to ensure early analgesic coverage in the immediate hours following administration
- Optimal results with EXPAREL can depend on the technique used for administration. Assessment of pain management by the nursing staff for feedback to the surgeon or anesthesia provider is important

## PAIN CONTROL WITH FEWER OPIOIDS MAY HELP PATIENTS:



Recover while  
being more alert<sup>12</sup>



Ambulate sooner after  
surgery, aiding in their  
recovery<sup>13</sup>



Be discharged more quickly  
from the hospital or  
outpatient surgical center<sup>13</sup>

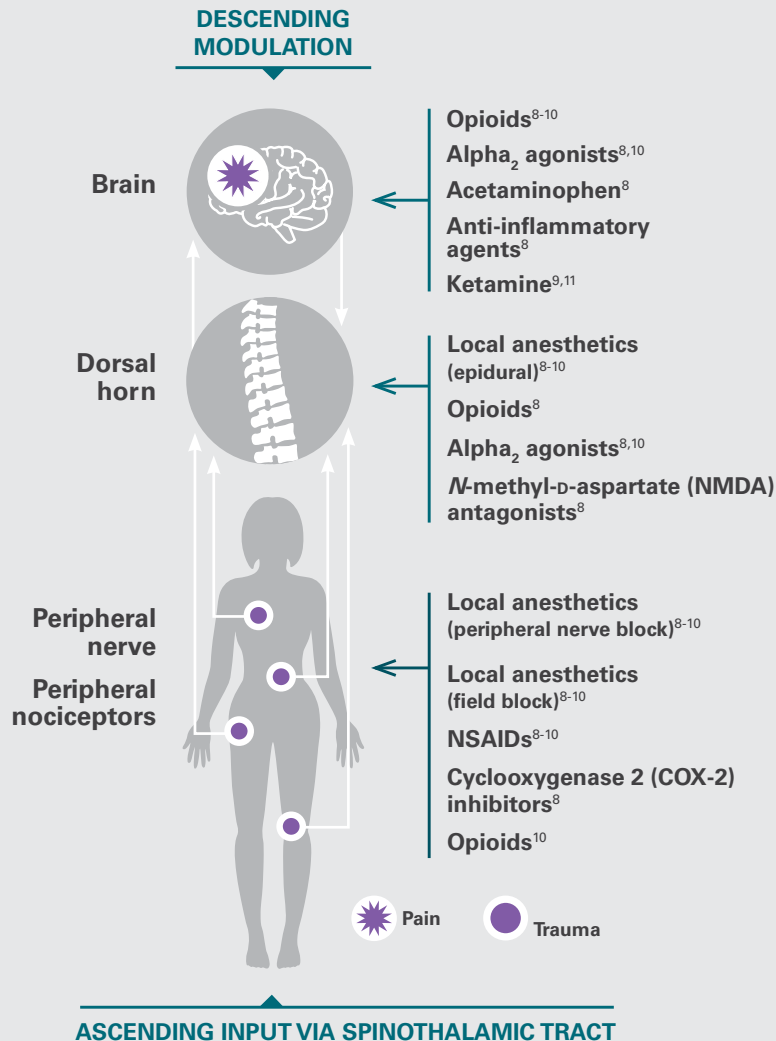
## HOW EXPAREL REDUCES OPIOID USE

### ► EXPAREL as part of a multimodal protocol

**Multimodal analgesia:** simultaneous use of a combination of multiple analgesics that act at different sites within the CNS and peripheral nervous system.<sup>6</sup>

This includes scheduled, around-the-clock, non-opioid medications such as acetaminophen, non-steroidal anti-inflammatory drugs (NSAIDs), and other treatments to control postsurgical pain.<sup>6</sup>

Multimodal medications all work differently along the pain pathway (see graphic to the right). From the site of tissue injury, through the dorsal horn of the spinal cord, and lastly to the brain these medications target different pain receptors (nociceptors) to help control postsurgical pain and decrease opioid use.<sup>7,8</sup>



## POSTSURGICAL PAIN ASSESSMENTS & PROTOCOLS

Pain assessments should include asking the patient about the EXACT characteristics of pain being experienced:



Location



Quantity of pain



Quality of pain



EXPAREL is a local analgesic that works predominately on somatic pain, or pain that originates from skin or skeletal muscle, not visceral pain, which originates from organs and is not always caused by tissue injury (eg, shoulder pain from insufflation after an abdominal laparoscopic procedure).<sup>14-16</sup>



When administered in adults as a regional nerve block, the return of sensation may be mistaken for pain. Depending on the site of injection and dosage administered, there is a potential for temporary sensory and/or motor loss with EXPAREL. It may last up to 5 days, as seen in clinical trials.<sup>17</sup>

- It is important to educate patients that some pain and discomfort after surgery is normal and may be different for everyone. They should let their nurse know if their pain increases or becomes severe
- Since EXPAREL is designed to reduce the need for opioids, it is important to follow the scheduled protocol and assess a patient's need for additional pain medications before administering them
- Each hospital will have different protocols in place for managing patients who have been given EXPAREL, which may include providing them with teal-colored wristbands
  - These wristbands can be helpful to identify and assess patients who have received EXPAREL as part of an opioid-minimization protocol
  - Although the use of other local anesthetics is not contraindicated, the wristband also serves as a reminder that the additional use of local anesthetics should be avoided for 96 hours



Pediatric wristband



Adult wristband

- Following systemic absorption, local anesthetics can produce effects on the cardiovascular and central nervous systems. Therefore, monitoring for signs of cardiotoxicity and neurotoxicity is essential

**With EXPAREL, many patients are able to recover  
from surgery with minimal to no opioids\***

\*The clinical benefit of the decrease in opioid consumption was not demonstrated in the pivotal trials.

## EDUCATING PATIENTS ABOUT EXPAREL

### INFORM



EXPAREL slowly wears off after a few days, and patients may start to experience pain at the surgical site.

Since pain can be subjective, discuss the difference between mild to moderate and severe pain. If patients have severe or increased pain, they should call their health care provider for help.

### INSTRUCT



Patients should follow their health care provider's instructions in regard to their medications to maintain adequate pain control and ensure an optimal recovery.

Medications may be taken in the hospital or outpatient facility and patients should continue their prescribed regimen at home per their health care provider's instructions.

### EXPLAIN



If an opioid medication is prescribed, make patients aware of any risks and side effects, and ensure they understand when to take their prescribed opioid vs non-opioid medications. Make sure to provide diversion & safe disposal instructions.

**OPTIMIZE YOUR RECOVERY AFTER SURGERY**

**PAIN MANAGEMENT GUIDE**

**Medications to Take**

Medication	How to Take
Acetaminophen (Tylenol)	Take as directed.
Non-steroidal anti-inflammatory drugs (NSAIDs)	Take as directed.
Opioids	Take as directed.

**Medications to Avoid**

Medication	Why to Avoid
Alcohol	Can increase the risk of bleeding and drowsiness.
Herbal supplements	Can interact with your medications.
Other painkillers	Can increase the risk of bleeding.

**How to Use This Tear Pad**

1. Read the instructions carefully.

2. Tear out the tear pad.

3. Give the tear pad to your healthcare provider.

4. Your healthcare provider will give you the tear pad to use at home.

**EXPAREL** is not an opioid. It can help reduce your pain after surgery. It is a long-acting local anesthetic. It is used to numb the area around the surgical site. It is not addictive. It does not cause drowsiness. It does not cause constipation. It does not cause nausea. It does not cause vomiting. It does not cause diarrhea. It does not cause dry mouth. It does not cause blurred vision. It does not cause dizziness. It does not cause lightheadedness. It does not cause fainting. It does not cause weakness. It does not cause fatigue. It does not cause headache. It does not cause back pain. It does not cause joint pain. It does not cause muscle pain. It does not cause numbness. It does not cause tingling. It does not cause itching. It does not cause rash. It does not cause hives. It does not cause swelling. It does not cause redness. It does not cause warmth. It does not cause coldness. It does not cause dryness. It does not cause wetness. It does not cause stinging. It does not cause burning. It does not cause irritation. It does not cause infection. It does not cause allergic reaction. It does not cause anaphylaxis. It does not cause shock. It does not cause death.

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Utilize this patient tear pad at discharge

Explore EXPAREL patient education resources [here](#)

\*Translations, including Spanish, are available

## Important Safety Information

EXPAREL is contraindicated in obstetrical paracervical block anesthesia.

Adverse reactions reported in adults with an incidence greater than or equal to 10% following EXPAREL administration via infiltration were nausea, constipation, and vomiting; adverse reactions reported in adults with an incidence greater than or equal to 10% following EXPAREL administration via nerve block were nausea, pyrexia, headache, and constipation.

Adverse reactions with an incidence greater than or equal to 10% following EXPAREL administration via infiltration in pediatric patients six to less than 17 years of age were nausea, vomiting, constipation, hypotension, anemia, muscle twitching, vision blurred, pruritus, and tachycardia.

Do not admix lidocaine or other non-bupivacaine local anesthetics with EXPAREL. EXPAREL may be administered at least 20 minutes or more following local administration of lidocaine.

EXPAREL is not recommended to be used in the following patient populations: patients <6 years old for infiltration, patients younger than 18 years old for nerve blocks, and/or pregnant patients.

Because amide-type local anesthetics, such as bupivacaine, are metabolized by the liver, EXPAREL should be used cautiously in patients with hepatic disease.

## Warnings and Precautions Specific to EXPAREL

Avoid additional use of local anesthetics within 96 hours following administration of EXPAREL.

EXPAREL is not recommended for the following types or routes of administration: epidural, intrathecal, regional nerve blocks other than interscalene brachial plexus nerve block, sciatic nerve block in the popliteal fossa, and adductor canal block, or intravascular or intra-articular use.

The potential sensory and/or motor loss with EXPAREL is temporary and varies in degree and duration depending on the site of injection and dosage administered and may last for up to 5 days, as seen in clinical trials.

## Warnings and Precautions for Bupivacaine-Containing Products

**Central Nervous System (CNS) Reactions:** There have been reports of adverse neurologic reactions with the use of local anesthetics. These include persistent anesthesia and paresthesia. CNS reactions are characterized by excitation and/or depression.

**Cardiovascular System Reactions:** Toxic blood concentrations depress cardiac conductivity and excitability, which may lead to dysrhythmias, sometimes leading to death.

**Allergic Reactions:** Allergic-type reactions (eg, anaphylaxis and angioedema) are rare and may occur as a result of hypersensitivity to the local anesthetic or to other formulation ingredients.

**Chondrolysis:** There have been reports of chondrolysis (mostly in the shoulder joint) following intra-articular infusion of local anesthetics, which is an unapproved use.

**Methemoglobinemia:** Cases of methemoglobinemia have been reported with local anesthetic use.

Full Prescribing Information is also available at [www.EXPAREL.com](http://www.EXPAREL.com).

For more information, please visit [www.EXPAREL.com](http://www.EXPAREL.com) or call 1-855-793-9727.

**References:** 1. Bramlett K, Onel E, Viscusi ER, Jones K. A randomized, double-blind, dose-ranging study comparing wound infiltration of DepoFoam bupivacaine, an extended-release liposomal bupivacaine, to bupivacaine HCl for postsurgical analgesia in total knee arthroplasty. *Knee*. 2012;19(5):530-536. 2. Angst MS, Drover DR. Pharmacology of drugs formulated with DepoFoam: a sustained release drug delivery system for parenteral administration using multivesicular liposome technology. *Clin Pharmacokinet*. 2006;45(12):1153-1176. 3. Kohn FR, Malkmus SA, Brownson EA, Rossi SS, Yaksh TL. Fate of the predominant phospholipid component of DepoFoam drug delivery matrix after intrathecal administration of sustained-release encapsulated cytarabine in rats. *Drug Deliv*. 1998;5(2):143-151. 4. Richard BM, Newton P, Ott LR, et al. The safety of EXPAREL® (bupivacaine liposome injectable suspension) administered by peripheral nerve block in rabbits and dogs. *J Drug Deliv*. 2012;2012:962101. 5. Baker W, Villadiego L, Lake N, et al. Transversus abdominis plane block with liposomal bupivacaine for pain control after cesarean delivery: a retrospective chart review. *J Pain Res*. 2018;11:3109-3116. 6. Mathiesen O, Dahl B, Thomsen BA, et al. A comprehensive multimodal pain treatment reduces opioid consumption after multilevel spine surgery. *Eur Spine J*. 2013;22(9):2089-2096. 7. Chou R, Gordon D, de Leon-Casasola O, et al. Guidelines on the management of postoperative pain. *J Pain*. 2016;17(2):131-157. 8. Gottschalk A, Smith DS. New concepts in acute pain therapy: preemptive analgesia. *Am Fam Physician*. 2001;63(10):1979-1984. 9. Gandhi K, Viscusi E. Multimodal pain management techniques in hip and knee arthroplasty. *The Journal of The New York School of Regional Anesthesia*. 2009;13:1-10. 10. Kehlet H, Dahl JB. The value of "multimodal" or "balanced analgesia" in postoperative pain treatment. *Anesth Analg*. 1993;77:1048-1056. 11. Tverskoy M, Oz Y, Isakson A, Finger J, Bradley EL, Kissin I. Preemptive effect of fentanyl and ketamine on postoperative pain and wound hyperalgesia. *Anesth Analg*. 1994;78(2):205-209. 12. Addiction and substance use disorders. Opioid use disorder. American Psychiatric Association website. <https://www.psychiatry.org/patients-families/addiction/opioid-use-disorder/opioid-use-disorder>. Accessed December 21, 2023. 13. Patients who undergo major operations without opioids have shorter hospital stays [press release]. Chicago, IL: American College of Surgeons; October 2018. <https://www.facs.org/for-medical-professionals/news-publications/news-and-articles/press-releases/2018/horattas102218/>. Accessed December 21, 2023. 14. Connolly N. Real-world insights on the use of transversus abdominis plane block with liposomal bupivacaine in the multimodal management of somatic versus visceral pain in the colorectal surgery setting. *J Pain Res*. 2018;11:1141-1146. 15. Sikandar S, Dickenson AH. Visceral pain: the ins and outs, the ups and downs. *Curr Opin Support Palliat Care*. 2012;6(1):17-26. 16. Wingerd B. Sensation. In: Wingerd B. *The Human Body: Concepts of Anatomy and Physiology*. 3rd ed. Baltimore, MD, and Philadelphia, PA: Wolters Kluwer/Lippincott Williams & Wilkins; 2014:6055-6794. 17. Anaesthetics: patient information. Interscalene brachial plexus block for shoulder surgery. Rotherham, UK: The Rotherham NHS Trust; 2014. [https://www.therotherhamft.nhs.uk/Patient\\_Information/Patient\\_Information\\_Leaflets/](https://www.therotherhamft.nhs.uk/Patient_Information/Patient_Information_Leaflets/). Accessed December 21, 2023.