

A tool to help
counsel your patients
on analgesic options
for post-op pain

Evaluate your patients' pain, explain
various treatment options,
and educate them on how a
multimodal approach can help.



*Recommend **TYLENOL**[®]
for post-op pain*

What's your pain level?

If you have pain after surgery, you're not alone. Use the scale below to assess your pain. Work with your healthcare professional to manage your expectations and set goals so you can get back to normal functioning—like returning to your job, household, and family.



0
No
Hurt



2
Hurts
Little Bit



4
Hurts
Little More



6
Hurts
Even More



8
Hurts
Whole Lot



10
Hurts
Worse

Options for relief*

The American Pain Society recommends using multiple techniques to help relieve pain. These may include non-medicine treatments in combination with over-the-counter pain relievers like **TYLENOL®**.¹

OPIOID-FREE	Why they may be used†
TYLENOL® (over-the-counter) <i>Acetaminophen</i>	<ul style="list-style-type: none"> ✓ Temporarily relieves minor aches and pains² ✓ Taken orally² ✓ May be appropriate for people on aspirin heart therapy or certain high blood pressure medications^{3,4} ✓ Gentle on the stomach^{5,6}
NSAIDs† (over-the-counter) Ibuprofen: <i>MOTRIN®, Advil®</i> Naproxen sodium: <i>Aleve®</i> Aspirin	<ul style="list-style-type: none"> ✓ Temporarily relieves minor aches and pains⁷⁻⁹ ✓ Taken orally⁷⁻⁹
NON-MEDICINE	
Options like acupuncture and massage can also help manage pain ^{10,11}	

OPIOID	Why they may be used†
Oxycodone <i>OxyContin®</i> Oxycodone/acetaminophen <i>Percocet®</i> Hydrocodone/acetaminophen <i>Vicodin®</i> Meperidine <i>Demerol®</i> Hydromorphone <i>Dilaudid®</i>	<ul style="list-style-type: none"> ✓ Effective for short-term or long-term severe pain that cannot be treated with other medications^{12,13} ✓ Available in multiple forms¹⁴ (injectable, skin patch, and pill)
Morphine Codeine Fentanyl Methadone	

Some pain relievers may not be right for you

Tell your healthcare professional if you have health conditions such as^{3,4†}:

♥ high blood pressure

♥ heart disease

*These are not all of the pain relief options available; your healthcare professional may suggest other types.

†Nonsteroidal anti-inflammatory drugs.

REFERENCES: **1.** Chou R, Gordon DB, de Leon-Casasola OA, et al. Management of Postoperative Pain: A Clinical Practice Guideline From the American Pain Society, the American Society of Regional Anesthesia and Pain Medicine, and the American Society of Anesthesiologists' Committee on Regional Anesthesia, Executive Committee, and Administrative Council. *J Pain*. 2016;17(2):131-157. **2.** U.S. National Library of Medicine. MedlinePlus. Acetaminophen. <https://medlineplus.gov/druginfo/meds/a681004.html>. Accessed June 6, 2018. **3.** Catella-Lawson F, Reilly MP, Kapoor SC, et al. Cyclooxygenase inhibitors and the antiplatelet effects of aspirin. *N Engl J Med*. 2001;345(25):1809-1817. **4.** Elliott WJ. Drug interactions and drugs that affect blood pressure. *J Clin Hypertens*. 2006;8(10):731-737. **5.** Hoftiezer JW, O'Laughlin JC, Ivey KJ. Effects of 24 hours of aspirin, Bufferin, paracetamol and placebo on normal human gastroduodenal mucosa. *Gut*. 1982;23(8):692-697. **6.** Blot WJ, McLaughlin JK. Over the counter non-steroidal anti-inflammatory drugs and risk

of gastrointestinal bleeding. *J Epidemiol Biostat*. 2000;5(2):137-142. **7.** U.S. National Library of Medicine. MedlinePlus. Ibuprofen. <https://medlineplus.gov/druginfo/meds/a682159.html>. Accessed June 6, 2018. **8.** U.S. National Library of Medicine. MedlinePlus. Naproxen. <https://medlineplus.gov/druginfo/meds/a681029.html>. Accessed June 6, 2018. **9.** U.S. National Library of Medicine. MedlinePlus. Aspirin. <https://medlineplus.gov/druginfo/meds/a682878.html>. Accessed June 6, 2018. **10.** Wu MS, Chen KH, Chen IF, et al. The efficacy of acupuncture in post-operative pain management: a systematic review and meta-analysis. *PLoS ONE*. 2016;11(3):e0150367. **11.** Kukimoto Y, Ooe N, Ideguchi N. The effects of massage therapy on pain and anxiety after surgery: a systematic review and meta-analysis. *Pain Manag Nurs*. 2017;18(6):378-390. **12.** Centers for Disease Control and Prevention. Prescription opioids. <https://www.cdc.gov/drugoverdose/opioids/prescribed.html>. Accessed April 18, 2018.

†This is NOT a complete list of considerations or warning for these products. You should always read and follow the appropriate product label and talk to your healthcare professional if you have any questions or concerns.

Considerations for OTC analgesic recommendations

Before choosing an OTC analgesic to include in your patient's multimodal pain relief plan, consider the following*:

NSAIDs

- All NSAIDs, even ibuprofen, may cause severe stomach bleeding⁷⁻⁹
- May interfere with certain antihypertensives and, in the case of ibuprofen, may interfere with aspirin heart therapy.⁴
- May precipitate kidney disease in those who¹⁵:
 - Are elderly
 - Have chronic heart failure
 - Have hypertension
 - Have diabetes

Non-aspirin NSAIDs increase the risk of certain cardiovascular events, like heart attack, heart failure, and stroke.^{7,8}

Acetaminophen

- May be an appropriate option for many patients who:
 - Use aspirin heart therapy³
 - Take certain diuretics and/or ACE inhibitors^{4,16}
 - Have cardiovascular disease^{3,4}
- Less likely than NSAIDs to cause adverse renal effects^{17,18}
- If taking concomitant acetaminophen-containing opioids, limit total daily intake to <4000 mg²
- Severe liver damage may occur if taken in large amounts (>4000 mg in 24 hours) or with other drugs containing acetaminophen²

TYLENOL® may be an appropriate analgesic choice for your post-op patients.^{3-6,15}



Use only as directed.

For more ways to help counsel your post-op patients, visit [TylenolProfessional.com/PostOp](https://www.tylenolprofessional.com/PostOp)

*This is not a complete list of considerations or warnings associated with these OTC analgesics. Patients should always read and follow the OTC Drug Facts Label and ask their healthcare professional if they have any questions.

REFERENCES (cont): **13.** U.S. National Library of Medicine. MedlinePlus. Opioid abuse and addiction. <https://medlineplus.gov/opioidabuseandaddiction.html#>. Accessed June 6, 2018. **14.** U.S. National Library of Medicine MedlinePlus. Oxycodone. <https://medlineplus.gov/druginfo/meds/a682132.html>. Accessed June 6, 2018. **15.** Bugge JF. Renal effects and complications of NSAIDs for routine post-operative pain relief: increased awareness of a real problem is needed. *Bailliere's Clinical Anesthesiology*. 1995;9(3):483-492. **16.** Radack KL, Deck CC, Bloomfield SS. Ibuprofen interferes with the efficacy of antihypertensive drugs. *Ann Intern Med*. 1987;107:628-635. **17.** Prescott LF, Speirs GC, Critchley JA, Temple RM, Winney RJ. Paracetamol disposition and metabolite kinetics in patients with chronic renal failure. *Eur J Clin Pharmacol*. 1989;36(3):291-297. **18.** Martin U, Temple RM, Winney RJ, Prescott LF. The disposition of paracetamol and the accumulation of its glucuronide and sulphate conjugates during multiple dosing in patients with chronic renal failure. *Eur J Clin Pharmacol*. 1991;41(1):43-46.