

# Evaluating Effective Non-Narcotic Alternatives in Post-Operative Pain Relief Therapy



**C2Dx<sup>®</sup>**

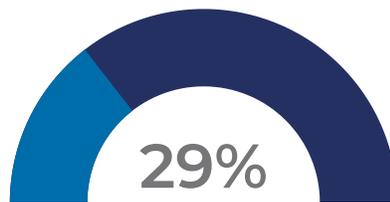


# The Need for Pain Management Alternatives

Opioid use for pain treatment dates back to the mid-1800s in the United States—but the risk of dependency was recognized even then.<sup>4</sup> Dosage and treatment duration can play a role in a patient's likelihood of experiencing opioid addiction, although studies show<sup>5</sup> that even short-term use of opioids can lead to misuse.



of patients continue to use opioids 3 months after surgery.

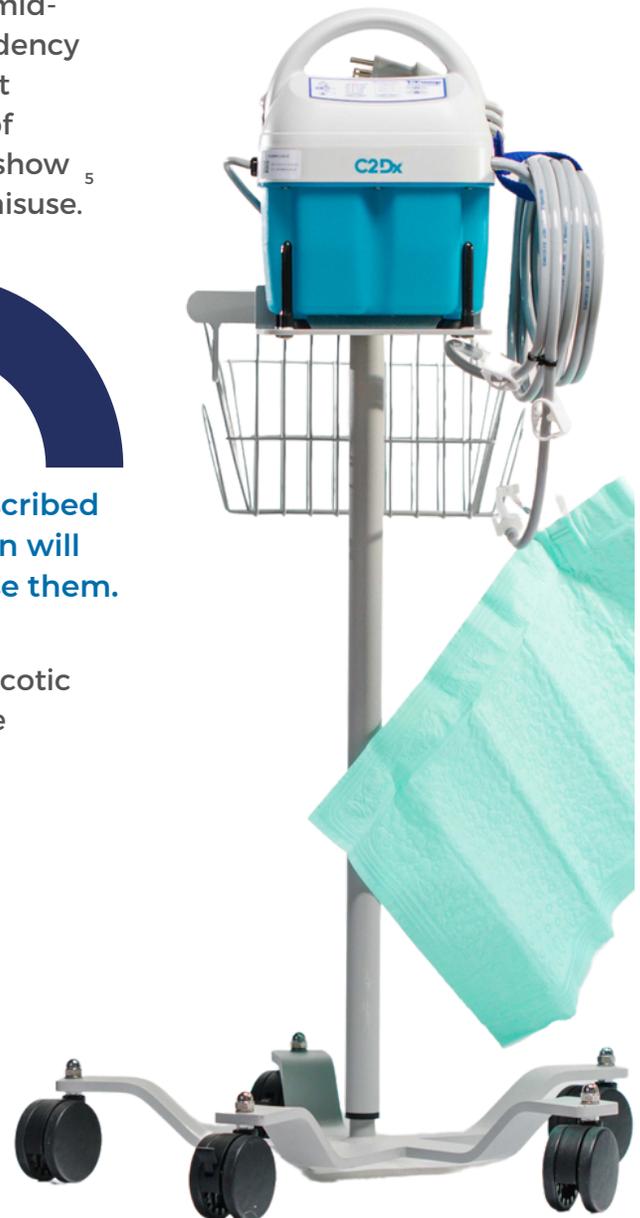


of patients prescribed opioids for pain will eventually misuse them.

Beyond the potential for misuse or addiction, narcotic painkillers also come with a host of potential side effects that can be significant to patient health, including:<sup>6</sup>

- Nausea
- Vomiting
- Constipation
- Urinary retention
- Drowsiness
- Impaired thinking skills
- Respiratory problems
- Or worse misuse and opioid addiction

To reduce the likelihood of post-operative opioid addiction, clinicians should consider alternative pain management options, such as localized warming and cooling therapy. In fact, studies have shown temperature therapy to be as or more effective than narcotics in post-surgical pain relief.



# Clinical Applications For Localized Pain Relief Therapy

The medical field has long recognized the benefits of both heat and cold therapy in alleviating inflammation, relieving pain, and promoting healing. In a recent trial study, the effects of cold therapy on the management of pain in patients undergoing ACL reconstructions showed promising results.

According to study findings, cold therapy patients required 53% less Demerol and 67% less oral Vistaril than patients in the control group. Cold therapy patients, who had continuous use of a cooling unit for 4 days, made the transition from injectable to oral pain medication an average of 1.2 days sooner in comparison to patients that did not receive cold therapy. Additionally, cold therapy patients were out of bed and walking more quickly, and completed their range of motion exercises with greater ease than non-cold therapy patients.<sup>7</sup>

Despite the clinical benefits identified in studies such as [this one](#), there are challenges with traditional methods of cold therapy. Ice packs, for example, are often messy and offer inconsistent and imprecise application and temperature control. There are now alternative technologies available that help offset those problems while optimizing the proven clinical benefits of localized temperature therapy for pain relief.

## One Unit, Two Therapies: Exploring the Benefits of T/Pump<sup>®</sup> Technology

The T/Pump<sup>®</sup> Localized Temperature Therapy System provides safe and effective localized warming and cooling therapy with precise temperature control. Simple and versatile, it is indicated for chronic pain in orthopedic conditions, skin trauma, and other medical conditions to meet the needs of an ever-changing patient population.



## The T/Pump<sup>®</sup> Localized Temperature Therapy Can Offer Non-narcotic Relief for:



### Acute Pain

Post-operative and injuries, including:

- Orthopedic surgeries
- Sprains
- Muscle spasms



### Skin Trauma

- Bruises
- Abscesses
- Boils
- Burns
- Contusions
- Infections



### Chronic Pain

Chronic conditions, including:

- Arthritis
- Neuritis
- Phlebitis
- Tendonitis



### Other

- Labor and delivery
- IV infiltration
- NICU

T/Pump<sup>®</sup> offers easy, portable, consistent, and precise temperature settings ranging from 50°F – 107°F (10°C – 42°C), along with controlled treatment duration with a choice of treatment cycles of 20 minutes, 30 minutes, or continuous.

The system is simple and versatile, designed for easy setup, use, and operation using tap water. A three-layer safety system ensures safe operation with dual temperature sensors, dual microprocessors, and back-up mechanical thermostat.

### Localized Cooling Therapy Vs. Traditional Ice Packs

- More efficient than ice, with less mess
- Consistent cooling and precise temperature control
- Convenient use – always ready to go



It's a great product. I had one put on my hip while in the hospital and it relieved pain immediately.”

– T/Pump<sup>®</sup> patient

# About C2Dx

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C2Dx is a medical device company based in Kalamazoo, Michigan, that invests in and refines the delivery of valuable, niche products to propel their growth and accessibility worldwide. Founded in early 2019 by industry experts, C2Dx is committed to providing leading medical products and superior customer service while continually evolving to ensure that healthcare providers have the devices and technology they need.

## Learn more about T/Pump® Localized Temperature Therapy from C2Dx:



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