

Because life  
shouldn't require  
batteries.



## Intraspinal Drug Delivery - A Proven Pain Management Therapy

### Potential Benefits of Intraspinal Drug Therapy Compared to Oral Pain Medications:

- Targeted pain relief for patients who fail more conservative pain therapies<sup>1,2</sup>
- Lower dosage requirements<sup>2</sup>
- Improved quality of life due to:
  - Reduced side effects (e.g., nausea, vomiting, constipation and sedation)<sup>2,4</sup>
  - Significant improvements in physical and emotional well-being<sup>1</sup>
  - Increased patient mobility and freedom
- Long-term cost-efficiency<sup>2,5</sup>



# CODMAN® 3000

Implantable Constant-Flow Infusion Pump

### Battery-free design

- Backed by a lifetime warranty

### Wide variety of sizes and flow rates

- 3 reservoir sizes (16, 30, and 50-mL)
- Multiple pre-set flow rates (H, M, L, UL)

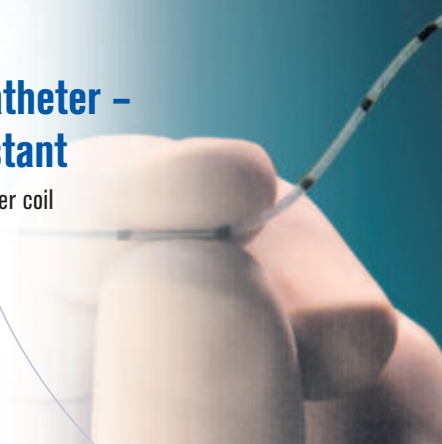
### Large, domed, single-septum access

- Easy access for refill and bolus procedures
- Smooth contours for patient comfort



### FlexTip® Plus Intraspinal Catheter – Durable, Flexible, Kink-resistant

- Polyurethane jacket with titanium-reinforced inner coil
- Wide variety of anchors available







## Simple, Battery-Free Design Means . . .

### No battery replacement surgeries

### Large reservoir capacity

- Wide variety of reservoir sizes allows increased time between refills

### Reduced size and weight

- No battery or on-board electronics means reductions in pump size and weight

### Long-term cost efficiencies

- Eliminates cost of device replacements due to battery expiration



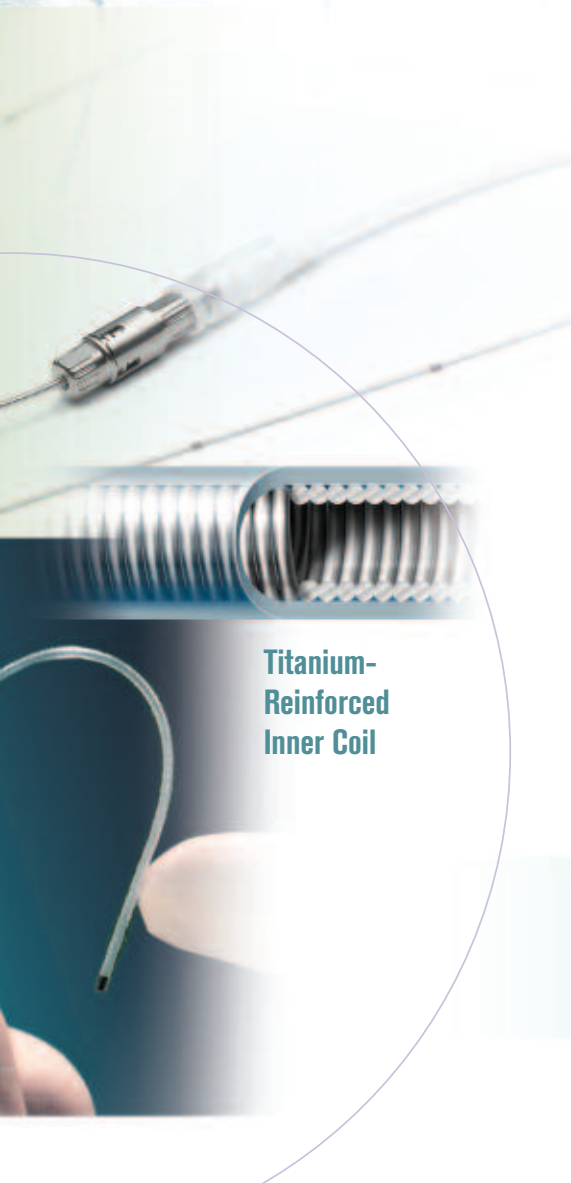
## Performing a Functional Trial with the Codman® FTX™ System

### The physician and patient benefits of a “functional” trial include:

- Simulates the experience of living with an intrathecal pump
- Mitigates the placebo response prior to pump implantation
- Determines the optimal starting dose, decreasing the need for frequent postoperative dose adjustments
- Provides realistic expectations of anticipated pain relief
- Helps to eliminate future surgical interventions through accurate patient identification

### Treatment Objectives for the Codman® FTX™ Functional Trial

- $\geq 50\%$  reduction in pain
- Dose reduction of systemic opioids
- Reduction in side effects associated with pain management therapy
- Improvements in activities of daily living and quality of life



**Titanium-Reinforced Inner Coil**

### Functional Trial Treatment Continuum

Begin 3 to 5 Day Functional Trial\*

- $\geq 50\%$  Reduction in Pain
- Identify Starting Dose
- Mitigate Placebo Effect

Patient Deemed Appropriate Candidate for Pump Implantation



## Frequently Asked Questions

### Can I adjust the dose with a Constant Flow pump?

Yes. “Constant Flow” does not mean “Constant Dose”. A patient’s dosage can be changed at any time by adjusting the drug concentration during the pump refill process.

### How can I titrate the patient’s dose to effect with a Constant Flow pump?

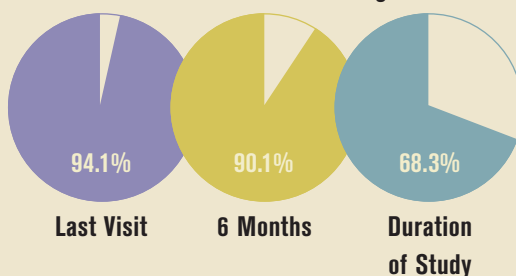
A published analysis of 1600 pump titrations showed that the dose of a Constant Flow pump can be titrated to effect with an average of 2 to 6 adjustments over a period of 1 to 6 months, compared with an average of 5.3 adjustments over a period of 3 to 6 months for programmable pumps.<sup>7</sup>

The authors state that “this data also demonstrates that titrating constant flow pumps in appropriately selected de novo patients is as easy as titrating current programmable pumps and that this issue should not be an obstacle to implanting constant flow pumps.”

### Won’t most of my patients require a complex dosing program, with variations in dosage throughout the day?

A retrospective chart review of 101 consecutive programmable pump patients found that at the last visit, 94.1% of patients were receiving a constant flow treatment (meaning no variations in dosage throughout the day); 90.1% had received such treatment for greater than or equal to 6 months and 68.3% throughout the entire analysis period.<sup>8</sup>

#### Programmable Pump Patients on Constant Rate Dosing

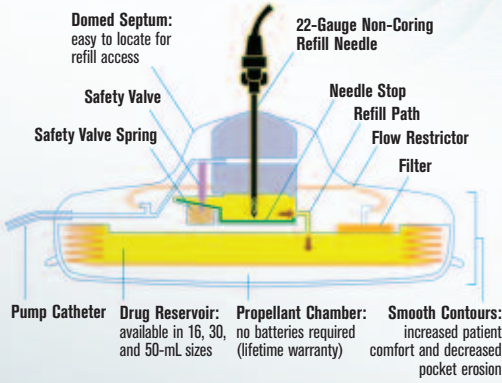


Implant Pump

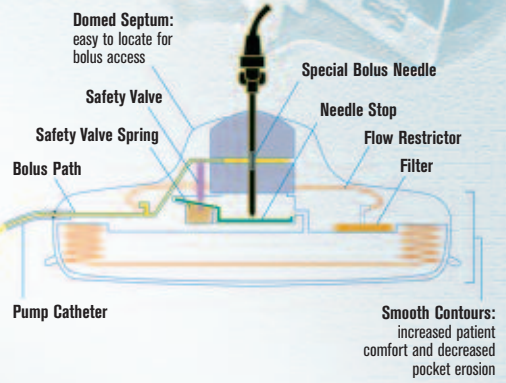
\* A 3 to 5 day trial appears to be the most widely practiced, but the trial should be long enough for physicians to make an informed decision regarding efficacy of pump implantation.

# Codman® 3000 Features Single-Septum Access

## Pump Refill Procedure



## Bolus Injection



## Multiple Flow Rates Available

Pump	Product No.		Nominal Flow Rate*	Approximate Time Between Pump Results
<b>16-mL Reservoir</b>	AP-03016-H	High-Flow Pump	1.3-mL/day	10-14 days
	AP-03016-M	Medium-Flow Pump	1.0-mL/day	2 weeks
	AP-03016-L	Low-Flow Pump	0.5-mL/day	1 month
	AP-03016-UL	Ultra Low-Flow Pump	0.3-mL/day	6 weeks
<b>30-mL Reservoir</b>	AP-03000-H	High-Flow Pump	1.7-mL/day	2 weeks
	AP-03000-M	Medium-Flow Pump	1.0-mL/day	1 month
	AP-03000-L	Low-Flow Pump	0.5-mL/day	2 months
	AP-03000-UL	Ultra Low-Flow Pump	0.3-mL/day	3 months
<b>50-mL Reservoir</b>	AP-03050-H	High-Flow Pump	3.4-mL/day	12-18 days
	AP-03050-M	Medium-Flow Pump	1.0-mL/day	7-8 weeks
	AP-03050-L	Low-Flow Pump	0.5-mL/day	12-13 weeks

\* Nominal flow rates are defined as the typical clinical flow rate in mL/day.

The nominal or typical rate is defined at standard conditions: patient temperature 98.6°F; altitude sea level.

### Special Order Z-Flow Rates Available Upon Request: Allow 6 Weeks for Delivery

The CODMAN® 3000 is indicated for the continuous regional delivery of intraspinal preservative-free morphine sulfate or baclofen.



## Reimbursement Information Program

To speak with a qualified reimbursement representative for information on reimbursement and precertification, call toll-free 1-800-609-1108, Monday through Friday, from 9:00AM to 6:00PM CST.

### Accessories

To order any of the following accessories, please call 1-800-255-2500.

<b>Intraspinal Catheter Systems:</b>	70021: FlexTip® Plus Intraspinal Catheter Kit
	IP-36633: Silicone Intraspinal Catheter Kit
<b>Pump Refill Supplies:</b>	AP-07014: Codman® 3000 Series Refill Kit
	AP-04009: Non-Coring Refill Needle, 22 gauge x 1", straight
	AP-04011: Non-Coring Refill Needle, 22 gauge x 1-1/2", straight
	AP-04030: Non-Coring Refill Needle, 22 gauge x 2", straight
<b>Special Bolus Needles:</b>	AP-04013-5: Special Bolus Needle, 1-3/8", straight
	AP-04032-5: Special Bolus Needle, 2", straight
<b>Codman® FTX™ Functional Trialing System:</b>	AP-08200: Codman® FTX™ Functional Trialing System with 19 Ga. FlexTip Plus Epidural Trialing Catheter
	AP-08201: Codman® FTX™ Functional Trialing System Replacement Parts, with 19 Ga. FlexTip® Plus Epidural Trialing Catheter
	AP-08100: Epidural Catheterization Kit with 19 Ga. FlexTip® Plus Epidural Trialing Catheter
	AP-08101: Epidural Catheterization Set with 19 Ga. FlexTip® Plus Epidural Trialing Catheter
	AP-08002: Codman® FTX™ Functional Trialing System Replacement Cassette
<b>Other Accessories:</b>	82-1515: Malleable Catheter Passer (36 cm), Sterile, Disposable
	82-1516: Malleable Catheter Passer (55 cm), Sterile, Disposable

For additional information and assistance, call Codman® Customer Service at 1-800-225-0460 or our 24-hour Technical Support Service at 1-800-660-2660.

For more information, visit [www.CodmanPumps.com](http://www.CodmanPumps.com)

#### References:

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2. Lamer TJ. Treatment of cancer-related pain: when orally administered medications fail. *Mayo Clin Proc.* 1994;69:473-480.
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4. Dougherty PM, Staats PS. Intrathecal drug therapy for chronic pain: from basic science to clinical practice. *Anesthesiology.* 1999;91:1891-1918.
5. Krames ES. Practical issues when using neuraxial infusion. *Oncology.* 1999;13(5, suppl 2):37-44.
6. Staats P, Whitworth M, Barakat M, Anderson W, Lilienfeld S. The Use of Implanted Programmable Infusion Pumps in the Management of Nonmalignant, Chronic Low-Back Pain. International Neuromodulation Society, 1094-7159/07
7. Faaber J, Koulousakis A, Staats P. Clinical Protocols for Titrating Constant Flow Implantable Pumps in Patients with Pain or Spasticity. *Neuromodulation, Volume 8, Number 2, 2005: 121-130.*

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