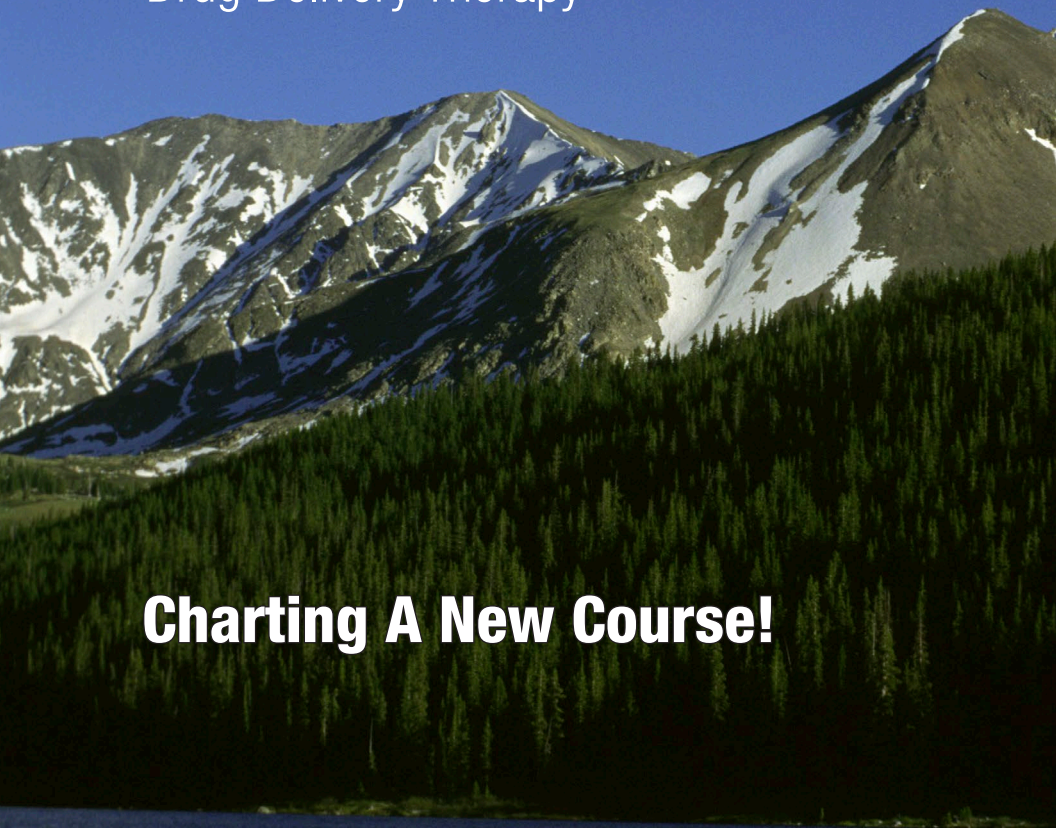
FLOWONIX

PROMETRA® II

Drug Delivery Therapy



Charting A New Course!

Living, Loving, Laughing.

At Flowonix Medical, we're dedicated to helping those who suffer from chronic pain, which by some estimates, includes some 48 million Americans.

In this booklet, you'll read about a new programmable pump with unique technologies offering important new benefits to patients suffering from chronic pain.

It's part of our mission to use our decades of biomedical experience to help relieve suffering, and allow people to live normal lives.

We're Flowonix Medical.

We're committed to advancing intrathecal therapy.

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For the pain that never stops: A new approach to prescribed pain medication* delivery.

If you've been living with chronic and debilitating pain, you know how it can affect virtually every moment of the day.

Unrelenting pain can make it impossible to enjoy even the simplest pleasures: a walk in the park, a visit from friends, or a good night's sleep. It can affect your mood, your outlook on life, and even the lives of the people around you.

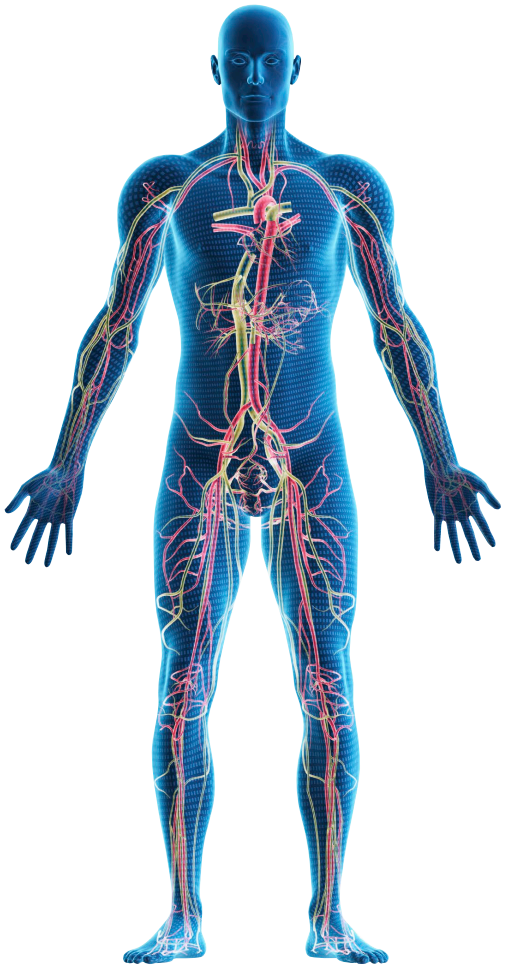
To be sure, medical science has come a long way since the days of herbs, incantations, and superstition. But still, for many people who suffer from chronic pain, conventional medications and treatments may not be enough. Or, the conventional approaches may come with side effects, or dosing problems, or other issues that affect your quality of life.

That is where targeted pain medication can help.

* Medication refers to the use of Infumorph, which is the FDA approved brand name for preservative free morphine sulfate

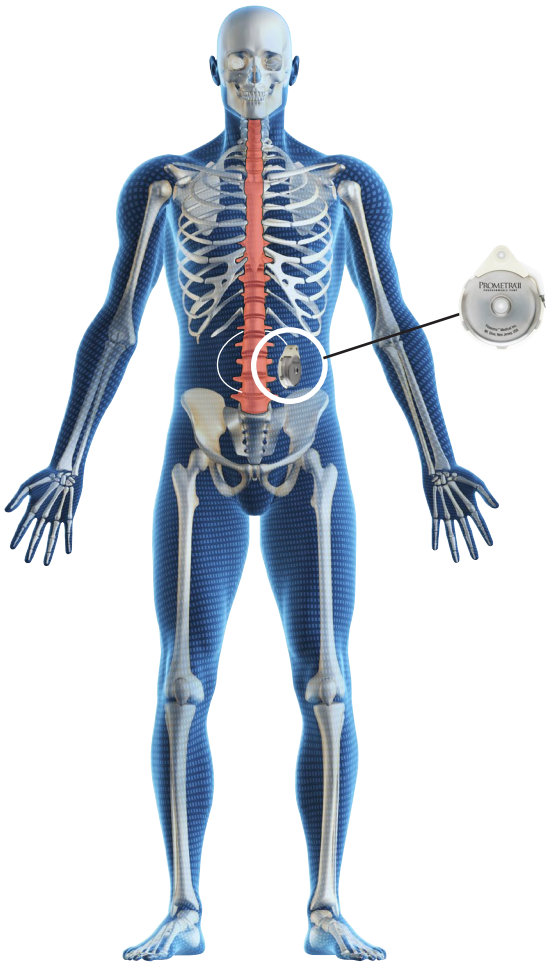
Typical Pain Medication

Most **conventional** pain treatment involves taking a medication by mouth, or perhaps by injection. This means the medication must travel through the entire bloodstream, before it can eventually act on the nerves, or the brain, or other sites of the body to relieve the pain. In some patients this causes side effects including drowsiness, confusion, nausea, constipation and respiratory depression. Over time, it may take higher and higher doses of medication to manage your pain.



Prometra II Drug Delivery

With the **Flowonix Prometra II** delivery system, pain medication (Infumorph) is delivered directly into the fluid surrounding the spinal cord. Infumorph effectively reduces pain sensations at the source. Pain medication can be delivered using a medication pump – that is implanted under the skin. This means that therapy can be managed by lower doses of medication. And the medication can be delivered directly to the damaged nerves.



What are the potential advantages of targeted intrathecal drug delivery?

Since the Flowonix Prometra II System delivers medication (Infumorph) directly to the nerves involved with pain sensations, it may offer significant benefits over other treatments:

- Many patients may require fewer oral medications to manage pain, with less potential for side effects of oral medications.
- Many patients may experience improvement in everyday activities.
- The medication is delivered automatically, at prescribed doses. This could reduce or eliminate the need for oral medications.

How does it all work?

The Flowonix Prometra II System is an implantable programmable pump. It is filled with a prescribed amount of specialized pain medication, and programmed by your physician to deliver a set amount of medication on a certain schedule.

The device is surgically implanted under the skin of your abdomen, with a narrow catheter leading to a target within your spinal cord.

Then, a precise mechanism will deliver the medication – as your physician prescribed – automatically. There is nothing for you to remember. Nothing to keep track of.

You will need to return to your physician periodically, to refill the pump with your pain medication. That procedure is about as simple as a routine injection.

It's important to understand that Infumorph does not treat the underlying cause of your pain. Nor does it repair damage or injury that may be causing your chronic pain. This therapy is designed to deliver medication which may reduce your pain symptoms.

Are there risks to this drug delivery system?

Implanting the pump under the skin is a surgical procedure which always involves some risk, including infection and leakage of spinal fluid.

Once the device is implanted there is also a risk of complications with the device which may require the device to be explanted. Drug overdose or underdose may also result from device complications, and may have serious or life-threatening effects.

Possible complications may include movement of the device within the body, or wearing through the skin. Parts of the device, including the catheter or pump, could leak, tear, kink, or become disconnected. It is also possible that the pump may fail to function because of a battery problem or a failure in some part of the pump. In some cases, inflammatory masses have been seen at the tip of the catheter, which can lead to complications, including paralysis.

Is this therapy right for you?

Your physician, with the help of a screening test, can help you decide if drug delivery is a good option for you. The Flowonix Prometra II System is indicated for the intrathecal infusion of Infumrph® preservative-free morphine sulfate sterile solution.

In general, this new therapy can be helpful if:

- You haven't seen adequate pain relief from other treatments. Or if you have experienced troublesome side effects from your pain therapy.
- Additional surgery is not likely to help with your pain, or the underlying cause of your pain.
- You have no issues that might make surgery a problem.

Making the Decision

1. Is your current therapy effective?
   If not, you may be a candidate for drug delivery therapy.
2. Test the therapy. A screening test can help you and your physician gauge how drug delivery therapy will affect your particular pain.
3. Evaluate the results. Does intrathecal drug delivery offer an improvement over your current therapy?
4. What therapy plan would be best for you?

What is a screening test? And how does it work?

Since this is a new and different type of pain therapy, a preliminary screening test can help you and your physician determine if drug delivery is a good option for you.

A screening test will help your physician see how well drug delivery might relieve your type of chronic pain. It will also allow your physician to decide what medication dosages might be needed to control your pain.

The test will let you experience targeted drug delivery yourself, to assess how it affects your pain symptoms.

The exact nature of the test may vary, but the idea is to simulate how the drug delivery system might work if it were implanted. You will normally go to a hospital or a surgery center for your test.

With the **injection test** you will have special pain medication injected into your back, near the spinal cord, much like the drug delivery would do. Your physician will then monitor your pain sensations.

With an **infusion test** your physician will insert a narrow catheter – a tiny tube – into your back, and attach it to a small pump. (This will be done either with anesthesia or a medication that will relax you.) You will then receive a continuous flow of medication, while your physician monitors your pain, and your response to the medication.

There are some risks involved in the screening test, including bleeding, infection, and possible drug side effects. You should also tell your physician if you have an active infection at the time of the test.

About the Prometra II Drug Delivery System

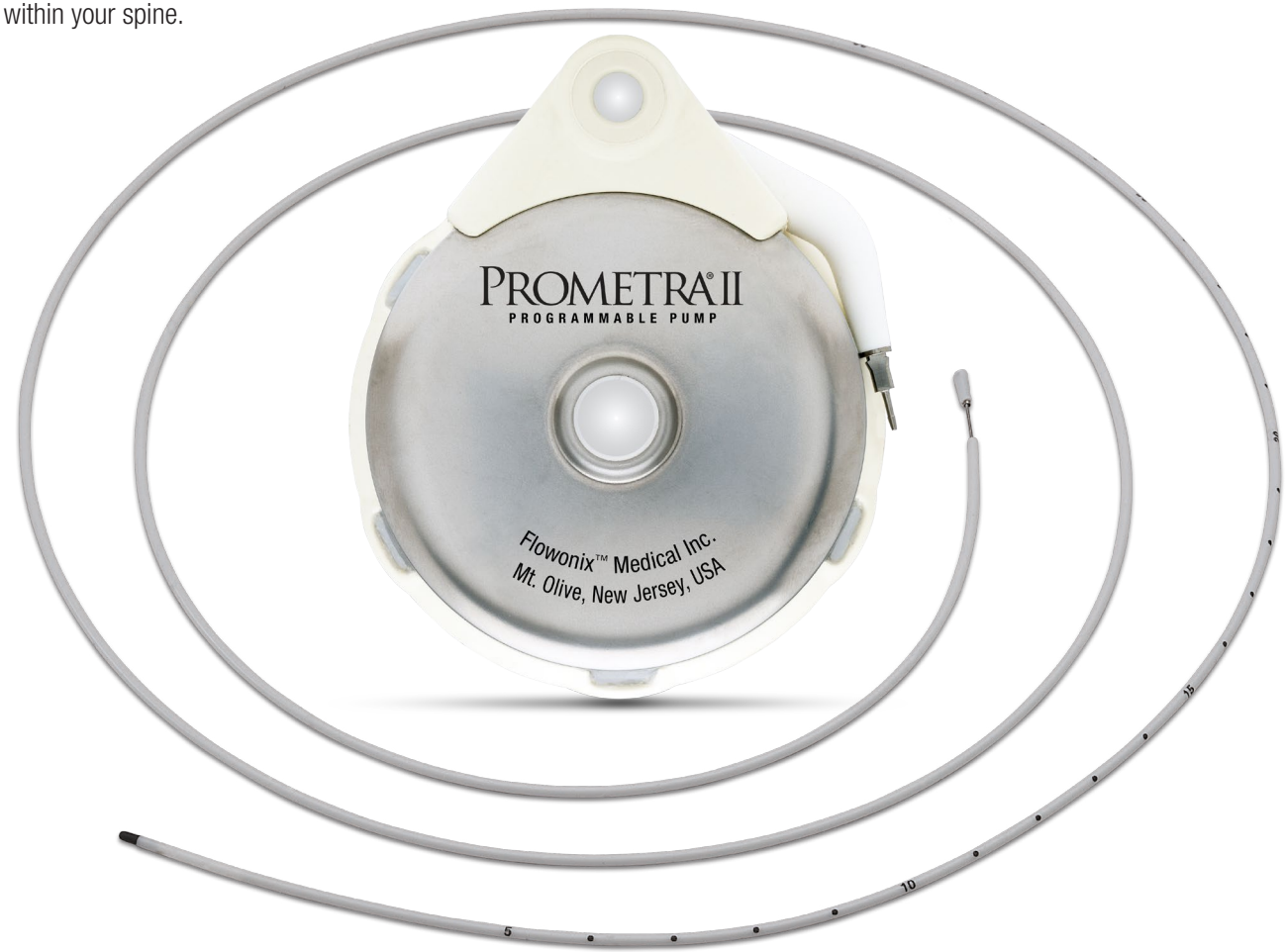
The Prometra II System is a fully implantable device designed to provide continuous drug delivery of Infumorph.

It includes:

- The **Prometra II Programmable Pump**, which stores a quantity of pain medication, and delivers it automatically, in precise doses
- The **Prometra Catheter**, a thin, flexible tube that delivers the pain medication to a targeted area within your spine.

Benefits for you and your doctor:

- The Prometra II System is fully programmable, which allows your physician to precisely adjust the flow of medication to your unique needs.
- The device uses an advanced valve design that permits highly accurate and consistent dosing
- Your doctor can make changes to your dosing therapy even after the device is implanted
- The pump can operate for a minimum of ten years on its internal battery.



Implanting the Drug Delivery Pump

The Prometra II System is implanted during a surgical procedure that is usually performed in a hospital or surgical center.

The surgery itself takes from one to three hours. Your stay in the hospital will vary, depending on your doctor's recommendations and the hospital's procedures.

For the procedure, you will normally be placed on your side on the operating room table. An anesthesiologist will see that you are comfortable and properly sedated.

The doctor or surgeon will make an incision in the skin of your abdomen, and form a pocket beneath the skin to hold the pump.

The doctor will then make a second incision in your back, which allows one end of the catheter to be placed properly near the spinal cord. The other end of the catheter is threaded under your skin and connected to the pump in your abdomen. This makes the entire system fully implanted; there are no parts outside the body.

Once everything is tested and checked, the incisions are closed and the surgery is completed.

Risks- ***Always discuss the potential risks and benefits of this therapy with your doctor.***

Since this a surgical procedure, there are risks of surgical complications such as infection or spinal fluid leak. A so-called 'spinal headache' is also possible.

After the system is implanted, problems with the device may occur which may require additional surgery. Improper functioning of the device can result in drug overdose or underdose that may have serious or life-threatening adverse effects. Possible complications with the device can include the catheter or pump moving within the body or wearing through the skin. The catheter could leak, tear, kink or become disconnected. The pump could stop if the battery runs out or because some other element of the system has failed. Additionally, inflammatory masses have been reported at the tip of the catheter which may lead to complications.

For additional information, visit our website www.flowonix.com/therapy.htm.

Preparing for the procedure

When planning the procedure with your doctor, be sure to confirm your insurance coverage well in advance.

Tell your doctor about the medications you're taking, about your allergies, and about any surgeries you have had, as well as any reactions to anesthesia in the past.

Arrange to have someone accompany you to the hospital on the day of the procedure, and to have someone drive you home afterward. You may also need to have a friend or family member help you at home for a day or two after the surgery.

You and your doctor will also decide the most suitable spot in your abdomen for the pump, so it's most comfortable and won't interfere with clothing or daily activities.

Your doctor and the hospital will give you important instructions to follow before the surgery. **Follow these pre-surgery instructions carefully.** In most cases:

- You will need to stop eating and drinking at some point before the surgery.
- Your physician will tell you which medications you can and cannot take before the procedure.
- You will need to shower or bathe before going to the hospital, and avoid using lotions, powders or perfumes.

On the day of the procedure:

- Have someone go with you to the hospital.
- Wear simple, loose-fitting clothing, and shoes that are easy to slip on and off.

After Your Prometra II is Implanted

Your Prometra II system can begin delivering pain medication as soon as it is implanted and filled with medication.

Note that it may take time – up to a few weeks – before you see the potential benefits of this intrathecal drug delivery therapy. Your doctor may begin reducing or eliminating your other pain medications during this initial period.

Your doctor will tell you how to care for the incisions after the surgery. It is also normal to feel some tenderness or discomfort around the pump and catheter right after the surgery; it is part of the usual healing process. **If you notice severe swelling, pain, or redness around the incisions, alert your doctor.**

Your doctor may prescribe medication to ease the pain from the surgery. You may also be asked to wear an elastic binder around your abdomen for additional comfort as you heal.

In general, your doctor may recommend that you avoid strenuous activities such as lifting, bending and twisting until healing is complete.

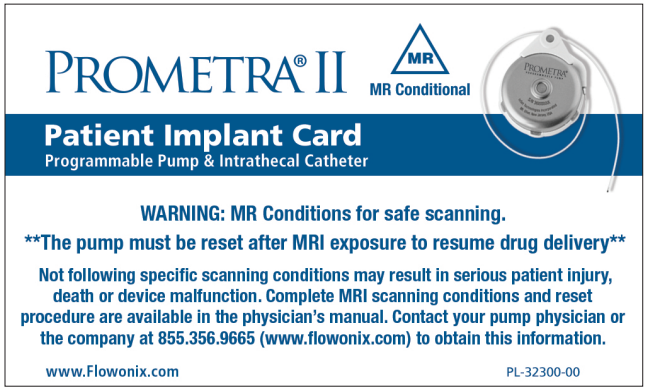
In time, the tenderness around the pump and catheter will subside, and you will become less aware of the system itself. Once healed, the surgical sites need no special care.

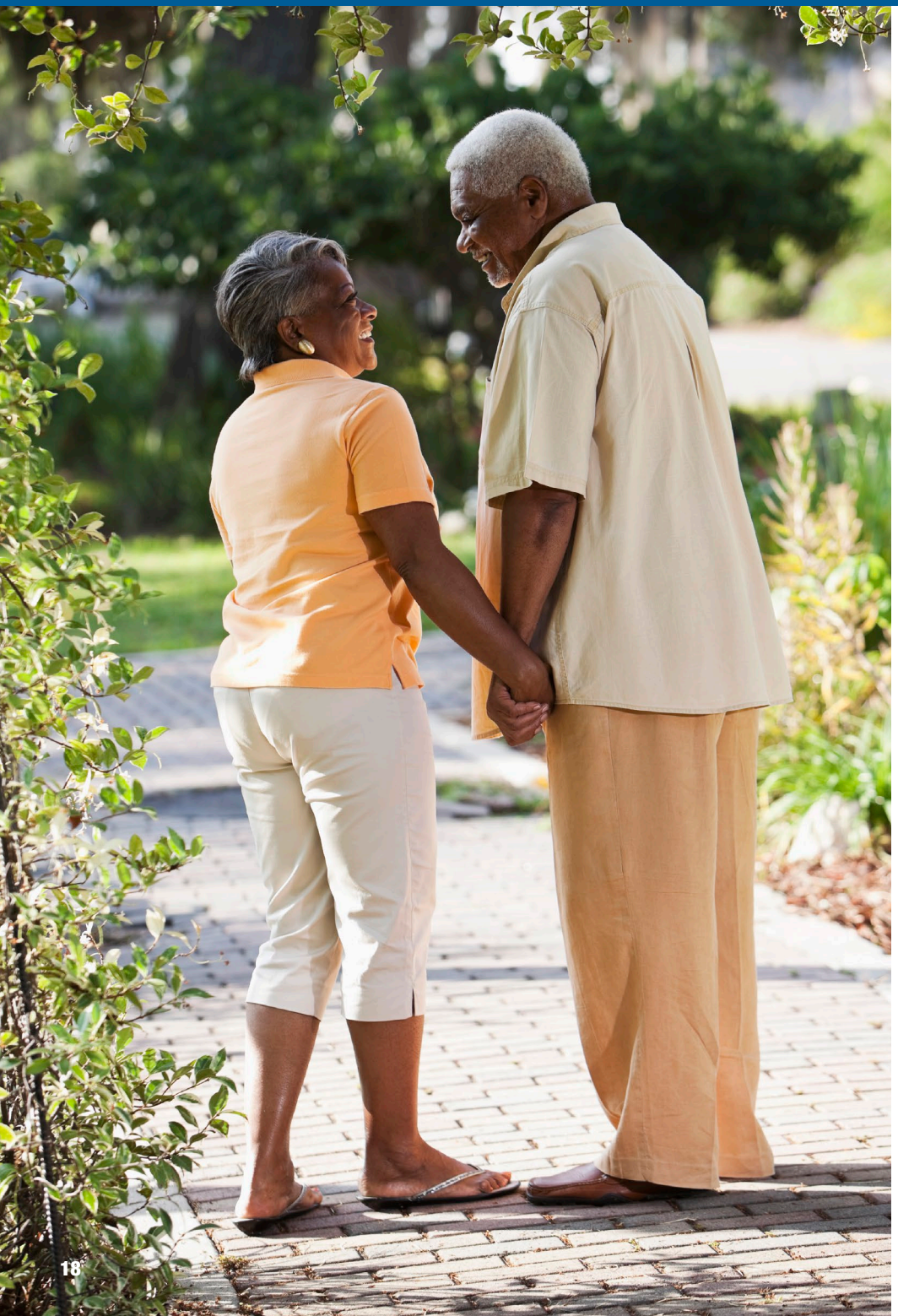
Occasionally your physician may determine that it is necessary for you to undergo a Magnetic Resonance Imaging procedure. This could be ordered by your pain management physician or another physician. It is important that you alert your physician to let them know that you have an implanted Prometra II pump.

You can undergo an MRI with your implanted Prometra II pump, provided your doctor and MRI technician follow certain scanning conditions.

You will be provided with a patient ID card that you should keep with you at all times. This patient ID card provides important information about your Prometra II pump to health care professionals. Provide a copy of your patient ID card to your physician and MRI technician prior to receiving an MRI. Always alert your doctor and technician well in advance of your MRI.

Immediately after your MRI procedure your physician will ensure that your pump is functioning properly. To ensure your pump is functioning properly your physician will perform a reset procedure. This reset procedure is sometimes necessary to return the pump to normal operation.





Why the Prometra II System is the Right Choice for Drug Delivery Therapy

The Prometra II System was designed with a simple goal in mind – to accurately deliver Infumorph to patients suffering from long term pain to help reclaim their lives.

The Prometra II System engineers have been working for decades to perfect this advanced system of medicine delivery – fulfilling the Flowonix mission of helping those who suffer from chronic disorders.

The latest Prometra II System is actually a fourth-generation device incorporating more than ten years of refinements and innovations, including:

A smaller Intrathecal Drug Delivery Pump.

An advanced microvalve technology that allows medication to be delivered with high **“accuracy and precision.”**

A simpler, easier refilling process.

A device designed to last a minimum of 10* years, saving the patient unecessary surgical procedures and out of pocket expense.

* Longevity calculation based on flow rate of 0.25ml/day

What Does Accuracy Mean to You?

Accuracy — "The quality or state of being correct or precise."

Your physician will determine the appropriate dose of drug to be delivered by the pump and program the pump to deliver the medication to you. Pumps with high accuracy claims will deliver what the physician prescribed.

When it comes to drug delivery pumps, accuracy means that the dosage delivered to you is true to what has been prescribed by your physician. The potential benefit of this is improved patient outcomes through the reduced risk of under and overdosing. Underdosing means that the pump does not deliver the full amount of drug expected. Avoiding overdosing helps reduce the prevalence of side-effects related to drug therapy. The result of having higher accuracy and less potential dose fluctuation may reduce disability, improve pain relief, and result in a higher quality of life.

Compared to the industry standard which achieves 85.5% accuracy, the Prometra II System leads the pump market in accuracy at 97%. The result is that patients implanted with the Prometra II System may have the greatest opportunity to experience the benefits of an implanted drug delivery device.

References

Prometra II Pump IFU - PL-31790-00
MDT Synchromed IFU

Concerned about your out-of-pocket expenses?

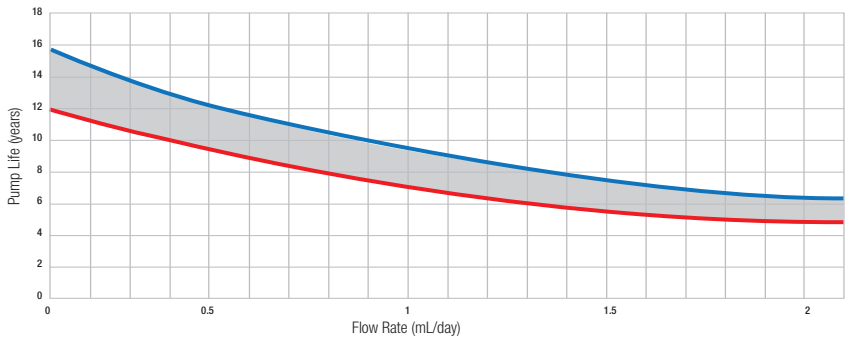
Flowonix Medical is concerned about the rising costs in healthcare. That is why we have designed the programmable Prometra II Pump with significantly longer battery life.

Not all programmable pumps last forever. All programmable pumps have a battery life span.

How does this impact you?

- A longer battery life, minimum of 10 years with the Prometra II System, could mean fewer pump replacement surgeries, less chance of infections, less anesthesia and decreased office visits
- Fewer surgeries could result in less out-of-pocket costs for you
- More quality time with your family and may offer an improved quality of life

Prometra II Life vs Flow Rate (0.25ml/day)



References

Prometra II Pump IFU, PL-31790-00
Prometra Infusion System Catheter IFU, PL-22790-00
Medtronic Synchromed II Programmable Pumps-8637 Implant Manual, 2009-2010

Ask Someone Who Uses Prometra Right Now

Would you like to speak to someone – probably much like you – who is benefiting from this type of therapy? Someone who once was in your place, and had the same questions you do?

Our One-to-One program can put you in touch with a Prometra II user who has volunteered to talk with others who are thinking about drug delivery therapy.

They would be happy to share their experiences, and answer questions you may have about this new way of treating chronic pain. Talk to them one-on-one, and learn how the Prometra II pump has changed their life.

If you'd like a One-on-One volunteer to contact you, call us toll free at Flowonix Tech Services: 855-356-9665.

We'll ask you a few questions to help us locate a volunteer with a situation similar to yours. Your volunteer will contact you directly, at your convenience.

No cost, no obligation. Ask away!

For more information please visit
www.helpwithpain.com

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Indications: The Prometra Programmable Infusion Systems are indicated for intrathecal infusion of Infumorph® (preservative-free morphine sulfate sterile solution) or preservative-free sterile 0.9% saline solution (Sodium Chloride Injection, USP). **Drug Information:** Refer to the Infumorph labeling for a complete list of indications, contraindications, warnings, precautions, dosage information and screening procedures. **Contraindications:** Implantation of this device is contraindicated when: The presence of infection is known or suspected; contraindications relating to Infumorph must be observed and followed per the approved drug labeling. **Warnings:** (1) Use of unapproved drugs (e.g., drug cocktails, pharmacy compounded drugs, morphine with preservatives, etc.) with the Prometra pump could result in pump failure and/or serious adverse events including death. (2) Safe scanning conditions vary based on pump model. Refer to the Instructions for Use for pump model identification and safe MRI scanning procedures. **Precautions:** Safety and effectiveness for use in pediatric patients under 22 years old has not been investigated or established. **Caution:** Federal Law (USA) restricts this device to sale by or on the order of a physician. Complete Prometra Instructions for Use and Infumorph drug labeling must be reviewed prior to use. In rare instances, the development of an inflammatory mass at the tip of the implanted catheter may occur, which can result in serious neurological impairment. Patients should be monitored carefully at each visit for any new neurological signs or symptoms, including: (1) progressive change in the character, quality, or intensity of pain (2) an increase in the level and degree of pain despite dose escalation (3) sensory changes (i.e., numbness, tingling, burning) (4) hyperesthesia and/or hyperalgesa. Presentations that require immediate diagnosis include (1) bowel and/or bladder dysfunction (2) myelopathy (3) conud syndrome (4) gait disturbances or difficulty ambulating (5) paraparesis or paralysis. If the presence of an inflammatory mass is suspected, recommended evaluation should include a review of the patient history and neurological evaluation, radiological diagnostic procedures (such as a CT scan with contrast) and appropriate clinical consultation. Inflammatory mass has been associated with a wide range of doses and concentrations of opioids. No dose or concentration of Infumorph can be considered completely free of risk from inflammatory mass. The risk of inflammatory mass occurrence appears to be cumulative over time and increases with higher concentrations and doses of opioids.

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