

Intrathecal Pump: What to Expect (side 1)

Pain Interventional Center
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What is an Intrathecal (IT) Pump?

It is a medication delivery system that delivers medication directly to the spinal fluid (intrathecal space). It consists of a pump and thin tubing. Both are surgically implanted under the skin and tubing is inserted into the spinal space. Not everyone responds in the same way.

Your benefits may include:

- Reduction in your chronic pain
- Improved function: walking, sleeping, errands, housework
- Need for less oral pain medications
- Fewer drug side effects than oral medication

Who is a candidate for IT pump therapy?

- You have pain or spasticity that has continued despite a long list of failed procedures, medications, treatments and surgeries
- You are emotionally stable and have realistic expectations
- You must be healthy enough for surgery
- You have had a successful pump trial

How do I know if the IT pump will work for me?

If you are a candidate, screening trials are done by your pain physician. Together you and your physician determine if a pain pump is right for you.

How long will I have the IT pump?

It is understood that a pain pump can be a device that will be with you for a lifetime. Every 2-3 months, medication refills of the pump are done. If the pump is no longer used, it can be filled with saline and possibly surgically removed.

How is the IT pump implanted?

The pump is implanted during a surgical procedure in the hospital. The doctor will implant the pump under your skin in the abdomen. A second incision is made on your back where the intrathecal catheter will be placed. The catheter will then be connected to the pump.

Plan on an overnight stay in the hospital for the implantation of the pump and catheter.

How long after the implant before I feel pain relief?

After the pump is implanted, it rarely produces instant relief. Your physician will begin with small doses of medication and slowly titrate (raise) the dosage before finding an effective dose for you. This takes a lot of patience. It can take months to get an effective dose.

How much pain relief will I get with the IT pump?

The pump does not promise total relief, only the possibility of improved pain reduction. Our goal is to try and reduce your pain by 50%. Self pain management skills are a necessary part of your pain control.

Where will my IT pump refills be done?

Pump refills are done in San Francisco Kaiser Pain Intervention department or other Kaiser centers that provide this service. Discuss with your pain physician where your refills will be done.

How often will my IT pump need to be refilled?

Refills are generally every 2-3 months but may be sooner. Refill appointments can not be missed. Missing your refill appointment can lead to pain medication withdrawal symptoms.

What are the signs and symptoms of pain medication withdrawal?

The signs & symptoms of **opiate/pain medication withdrawal** are: anxiety, watery eyes, watery discharge from the nose, yawning, dilated (enlarged) eye pupils, loss of appetite, shakes, hot and cold flashes, aching of your whole body, high blood pressure, fast pulse, rapid breathing, diarrhea, vomiting, low blood pressure, and dehydration.

You doctor may also use Clonidine in your pump to help the pain. The signs & symptoms of **Clonidine withdrawal** are: Severe high blood pressure, excessive sweating, irritability, nervousness, headache, & tremors.

If muscle spasticity is your medical diagnosis, your doctor may use **Baclofen** as your pump medication.

The Signs & symptoms of **abrupt Baclofen withdrawal** are: recurrence of spasticity, itching, anxiety, disorientation, fever, involuntary twitching of a muscle & seizures, which in rare cases can lead to rapid breakdown of skeletal muscle, organ failure, cardiac arrest, coma, & death

Who refills my IT pump?

Pump Refills are done by the nurses in The Pain Intervention Department. Management of the pump is done by both the nurses and the pain physician. All telephone calls are managed by the nurses and will be triaged to the physician as needed. Most questions regarding pumps and dosage changes are done 3 weeks before the refill day. The telephone number for the **San Francisco Pain Intervention Department Pump management nurse is at 415-833-4776**

Intrathecal Pump: What to Expect (side 2)

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Will I develop a dependence on the IT medications?

Intrathecal pain medication causes physical dependence and tolerance just as you see in oral opiate pain medication. There are generally fewer side effects however. Pain medication may need to be rotated over time due to tolerance.

Will I still be taking my oral pain medications while using an IT pump?

Once an IT pump is implanted, oral pain medications are kept to a minimum. Medication contracts are signed by both the physician and patient prior to implantation.

Does IT pump therapy cause hormone changes?

As with oral opiate therapy, IT opiate therapy can also lead to hormone changes. Men can experience a decrease in testosterone levels. Men will be screened every 6 months to a year & referred to an endocrinologist if needed for replacement and management of testosterone. Pre-menopausal women who have abnormal menses will be instructed to follow up with their GYN doctor. Post menopausal woman should be managed by their GYN doctor with the awareness that they are on IT therapy and may need hormone replacement more than non opiate taking post menopausal women.

Can there be problems related to IT pumps?

Pump related problems can occur. Most problems occur with the catheter which can rarely become kinked,

plugged, twisted, or even broken. The main symptom is an increase in pain or spasticity. A radiological study using dye can be done by your doctor to visualize if the catheter is functioning properly. If there is a catheter problem, you may need further surgery to correct the problem.

What are some side effects of having an IT pump?

A side effect that can occur is the formation of a granuloma. A granuloma is a tumor-like formation at the tip of the catheter which can block the catheter and compress your spinal cord. Symptoms to watch for are a change in the quality or intensity of pain or spasticity. New pain radiating down your leg. Large rapid increase in your medication dose needed to maintain pain or spasticity relief. Temporary relief of increasing pain or spasticity when medication dose is increased. The granuloma is thought to be caused by high doses or high concentration of opioids and Baclofen. Therefore your doctor will administer the lowest effective dose and concentration of opioid or Baclofen. If you have any new neurological signs or symptoms; contact the Department or your physician and prompt imaging procedures (MRI) will be ordered. Also contact your doctor immediately if you have new numbness, tingling, & increased sensitivity of skin; new bowel or bladder dysfunction; new motor weakness, change in gait or difficulty walking.

How long does the IT pump battery last?

The pump battery has a limited lifetime of about 5 years. Toward the end of its life, the pump will alarm (beeping sound once/hour). The pump needs to be replaced soon thereafter. The doctor may be able to replace the pump and keep your catheter in place. However you will need another surgical procedure at this time.

How is the IT pump refilled?

Pump refills are not usually painful. The nurse will insert a needle into the center of the pump. We occasionally put a small tattoo (black dot) at the port site (with your consent) to make it easier for the nurses to locate the center of the pump. The refill is done with sterile technique. We ask that you to wear a mask during the refill procedure. The medication remaining in the pump will be removed before the new medication is inserted. Then, the needle is removed. Finally, using a computer program, your pump will be updated with the information of your new medication.

This is a good time for you to discuss the efficacy of your medication regime. The medication may be titrated up or down depending on your symptoms and evaluation by the nurse and/or physician.

Your pump will alarm if the medication volume is low (a beeping sound once an hour similar to a low battery alarm). So be aware of your refill schedule.