Fentanyl IV/IM Formula (Sublimaze®)

**Pronounced:** FEN-ta-nil

**Classification:** Opioid

### About Fentanyl IV/IM Formula (Sublimaze®)

Opioids are the strongest form of medication used to treat pain. Opioids work by attaching to opioid receptors, which are found in many areas of the body, including the brain, spinal cord, and gastrointestinal (GI) tract. An opioid attaches to the receptor, which reduces the transmission of pain messages to the brain, reducing pain. Opioids are used to treat moderate to severe pain that is not well managed with other pain medications. They do not treat the underlying cause of the pain. If cancer is causing the pain, the cancer treatment is aimed at reducing the pain.

There are many different formulations of fentanyl. This form is given intravenously (IV, directly into a vein) or intramuscularly (IM, injection into a muscle). It is used for both short-term pain management and as anesthesia. This article will focus on the use of intravenous (IV) fentanyl for pain management.

### How to Take Fentanyl

This type of fentanyl is given intravenously (IV, into a vein) or injected into a muscle (IM). Your provider will determine your exact dosage and dosing schedule. When fentanyl is injected, it is immediately absorbed into the body. It will begin working to relieve pain almost instantly, although it reaches its peak effect in 5 to 10 minutes. It will continue to work for 2 to 4 hours.

This medication can interact with alcohol and other medications that depress the central nervous system (CNS) like barbituates (including phenobarbital), tranquilizers (including Haldol®, Librium®, and Xanax®), other narcotics, and general anesthetic. Make sure your provider is aware of all the medications, vitamins, and supplements you are taking.

### Possible Side Effects of Fentanyl

There are a number of things you can do to manage the side effects of fentanyl given intravenously or intramuscularly. Talk to your care team about these recommendations. They can help you decide what will work best for you. These are some of the most common or important side effects:

#### Slowed Breathing or Low Blood Pressure

You may have low blood pressure or slowed breathing while taking opioid pain medication. This usually only happens when the dose of medication is too high or it is increased too quickly. This rarely happens to patients who have been taking opioid medications for a long time.

These side effects can also result from an overdose of opioids. If you suspect that you or someone you know has taken an overdose of opioids, call 911 right away. If you feel extremely tired, lightheaded, dizzy, sweaty, nauseated, or short of breath, you need to seek care right away. Sometimes patients who have taken too much opioid medication will be so sleepy that they can't be awakened or aroused. These side effects are emergency situations. If any of these symptoms occur, you should seek emergency medical attention.

#### Sleepiness (Somnolence)

Feeling sleepy, drowsy, or lightheaded may happen with the use of opioid pain medication. Some people just don't "feel like themselves" on these medications. Avoid driving or any other potentially dangerous tasks that require your concentration and a
clear head until you feel normal again. Avoid alcohol or other sedatives while using these medications unless they are specifically prescribed by your care team. Most people will begin to feel like themselves after a few days on the medications. If you continue to feel "out of it" after a couple of days, talk to your healthcare provider about adjusting your dosages.

**Constipation Caused by Pain Medications**

Constipation is a very common side effect of pain medications that continues as long as you are taking the medications. This side effect can often be managed well with the following preventative measures:

- Drinking 8-10 glasses of water a day. Warm or hot fluids can be helpful.
- Increasing physical activity when possible.
- Attempting a bowel movement at the same time each day.
- Eating plenty of fruits and vegetables.
  - Four ounces of prune juice or 3-4 dried prunes/plums can help promote bowel movements.
  - However, high fiber foods (ex. bran flakes, high fiber cereals) and fiber supplements (such as Metamucil) can actually make constipation from pain medications worse and should be avoided.

Your care team may recommend a bowel regimen, using stool softeners and/or laxatives, to prevent or treat constipation. Stool softeners (such as docusate sodium or Colace) work by bringing water into the stool, making it softer and easier to pass. A stimulant or laxative (such as Dulcolax [bisacodyl] or Senakot [senna]) work by stimulating the movements of stool through the bowel. Your provider may recommend Miralax (Polyethylene glycol 3350), which is an osmotic laxative. It works by causing water to be retained in the stool, softening the stool so it is easier to pass. These medications can be taken together. Untreated constipation can lead to a bowel blockage, so be sure to notify your healthcare team if you do not have a bowel movement for 3 or more days.

**Concerns About Addiction, Tolerance, and Dependence**

Many people who are prescribed opioid pain relievers are worried that they may become addicted to these medications. This fear stems from the fact that opioid medications can cause euphoria and pleasure when used by people who are not in pain. However, when these medications are used to treat physical pain, it is unlikely that patients will become addicted to them. Addiction is a psychological need for the drug that very rarely affects people who take opioids for pain control. People addicted to opioids use them for the purpose of getting "high." These people also crave opioids, lack control over their use, and will continue to use opioids despite knowing they are causing them harm. People experiencing pain use opioids to relieve their pain.

A person on long-term opioids may stop getting proper pain relief after taking these medications for a while. This phenomenon is called **tolerance**. As patients develop tolerance, they will need higher doses to get pain relief. Tolerance is a completely normal aspect of taking opioid pain medications, and is nothing to be concerned about. The point of using these medications is to keep pain well-controlled, and the exact doses that a patient requires are not important as long as they can be kept comfortable. If you think you need to change the dose, work with your healthcare team to find the right dose to make you comfortable. Do not try to change the dose on your own, as this may cause unwanted side effects.

As a person takes regular doses of opioids, for as little as a week, their bodies will begin to adapt to the medications. This causes tolerance, but it can also cause **dependence**. Dependence means that the body "gets used to" the opioids. Dependence **DOES NOT** equal addiction. Dependence is a natural, physical phenomenon that happens to everyone on long-term opioid therapy. The important thing to know about dependence is that once a patient becomes dependent on opioids, they will feel very sick if they stop the medication abruptly. This is called **withdrawal** and the symptoms it causes can start within 2 days of abruptly stopping opioids and may last up to 2 weeks. Withdrawal can be avoided if you lower the opioid dose slowly, generally over a week or so, with the help and guidance of your health care team. The exact amount of time to wean varies based on dose, how long you’ve been taking them, and some other individual factors. It is important to remember that dependence is normal and happens to everyone who takes opioids for a long period of time. Talk to your provider if you have any concerns.

**Less common, but important side effects can include:**

- **Serotonin Syndrome**: This medication can cause a high level of serotonin in your body, which in rare cases, can lead to
serotonin syndrome. Symptoms can include shivering, agitation, diarrhea, nausea and vomiting, fever, seizures, and changes in muscle function. Symptoms can arise hours to days after continued use, but can also occur later. This is a serious side effect and you should contact your care provider right away if you have any of these side effects.

- **Adrenal Insufficiency**: Adrenal insufficiency (inadequate function of the adrenal gland) is a rare but serious side effect of taking this medication. It most often happens after taking the medication for one month or longer. Symptoms are not very specific, but can include nausea, vomiting, anorexia, fatigue, weakness, dizziness, and low blood pressure. It is important to contact your care provider if you experience any of these side effects.

**Reproductive Concerns**

Chronic exposure of an unborn child to this medication could result in the child being born small and/or early, or having symptoms of withdrawal (including respiratory distress, behavioral changes and seizures) after birth. Effective birth control should be used while on this medication. Even if your menstrual cycle stops or you believe you are not producing sperm, you could still be fertile and conceive. You should not breastfeed while receiving this medication as it is passed through a mother’s milk.