



Common symptoms of cerebral palsy can include [spasticity](#) and muscle tightness. Baclofen is a drug that is used to reduce both of these problems.

What is Baclofen?

Baclofen, also known by the brand name Lioresal, is a muscle relaxant that reduces spasticity and muscle tightness by acting on the spinal cord and brain receptors. It can be taken orally (a prescription is necessary) or through a surgically-inserted pump. Both methods can have major benefits and serious side effects. Your doctor will discuss the advantages and risks associated with baclofen before prescribing it.

How is Baclofen administered?

Doctors can prescribe oral baclofen either in the form of a tablet or a liquid. If not administered orally, the medication will be given via a baclofen pump. Pumps are fairly common because the drug's half-life is very short (approximately 3-4 hours) and the pump allows for more consistent drug administration.

Common side effects

Although oral baclofen has been on the market for years and can be highly effective, there are also [several side effects](#). A dose sufficiently high to control involuntary muscle spasms may also act as a sedative. In addition to drowsiness, patients using oral baclofen often report:

- Confusion



- Dizziness
- Nausea
- Weakness

Less common side effects include:

- Seizures
- Irregular heartbeat
- Breathing problems
- Hallucinations
- Blurred vision
- Ringing in ears
- Blood in urine
- Chest pain
- Rash
- Extreme weakness

The Baclofen Pump

The Baclofen pump, also known as ITB Therapy with Lioresal Intrathecal, is surgically placed under the skin in the abdominal area. It is wirelessly programmed to deliver liquid Baclofen directly into the intrathecal space, which is a fluid-filled area surrounding the spinal cord. The pump is about the size of a hockey puck. Before it is inserted, doctors can do a test called a lumbar puncture, in which they use a needle to insert a dose of baclofen into the spine and then have a physical therapist observe the patient to see how they react.



How does the pump work?

The pump provides a continuous feed of baclofen to the cerebrospinal fluid (SCF). Placement of the pump is a surgical procedure under general anesthesia. The pump must be periodically refilled, and must be replaced every several years with another surgery.

How long does a pump last?

Once the pump is inserted, it can last for about five years. Then it will need to be surgically removed, but the patient can have a new one inserted in its place.

Advantages

Use of a baclofen pump has a couple of [important advantages](#) over oral administration. The first advantage is low dosages. Medication is administered directly to the spine, meaning that a lower dose needed to produce the desired effect than when taken orally.

Second, patients do not need to remember to take it at the same time every day, because a doctor can program it to release doses matching their needs. They can even adjust the dose so that it is higher when the patient needs it the most, such as on the day they have physical therapy appointments. This can mean avoiding unwanted side effects such as sleepiness and sedation. However, there are also unique risks associated with choosing the pump over the oral version.



Potential Complications

There are also several potential complications of baclofen pumps, including:

- Unwanted movement of catheter or pump
- Skin over pump breaks down
- Infection or spinal fluid leak caused by surgery
- Pump or catheter failure leads to overdose or withdrawal symptoms (see next section)

Issues Related to Baclofen Overdose and Withdrawal

For both the oral version and the pump, the dosages must be very precise and tailored to the individual. Accidental overdose or underdose (complete or partial withdrawal) can have serious consequences. [Withdrawal symptoms](#) may include:

- Itching
- Lightheadedness
- Low blood pressure
- Tingling sensation
- Increase or return of spasticity
- Fever
- Altered mental state
- Muscle stiffness
- Organ failure, potentially resulting in death

Symptoms of overdose may include:



- Drowsiness
- Loose muscles
- Lightheadedness
- Low body temperature
- Seizures
- Difficulty breathing
- Loss of consciousness/coma

Your doctor may be able to help you weigh the potential costs and benefits of taking baclofen or giving it to your child. To maximize improvement of muscle spasms and tightness, baclofen can be used in conjunction with physical therapy and other types of interventions (pending the approval of medical professionals, of course).

The information presented above is intended only to be a general educational resource. It is not intended to be (and should not be interpreted as) medical advice. If you have questions about baclofen, please consult with a medical professional.

Sources:

[Baclofen \(Intrathecal\): AboutKidsHealth](#)

[Cerebral Palsy and Spasticity Treatment: Seattle Children's Hospital](#)

[Efficacy and safety of oral baclofen in the management of spasticity: a rationale for intrathecal baclofen: Journal of Rehabilitation Medicine](#)

[Baclofen Pump Therapy for the Treatment of Spasticity: Michigan Medicine](#)