

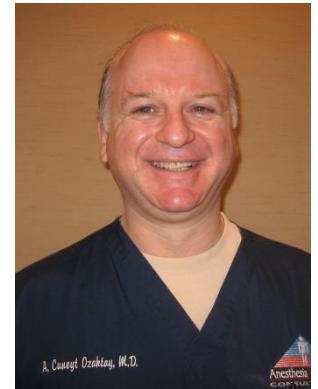


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## INTRATHECAL PUMPS and the BATTLE AGAINST SPASTICITY and PAIN

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Many thousands of people who suffer from spasticity have searched for ways to control their muscles and reduce the pain associated with it. Spasticity may come from spinal cord injuries, multiple sclerosis, or other neurological diseases, and is characterized by tight, stiff muscles, and problems with voluntary muscle movement.



A variety of doctors and health care professionals see patients who suffer from spasticity. Neurologists, physical therapists, pain specialists, nurses and social workers all work with patients that are dealing with the debilitation that comes with spasticity. Many physicians rely on baclofen, a medicine that relaxes muscles by acting on the central nervous system. Baclofen has been recognized for its effectiveness in increasing range of motion, decreasing spasms and tightness – and notably, pain. The medicine restores normal balance of electrical signals coming from the spinal cord through the nerves.

Baclofen can be taken orally as a pill. While there is a positive side to the medication, and there is a measure of relief, frequently doctors and patients report a high level of sedation that comes as a side effect to the oral medication. There is an alternative to the pills. By delivering baclofen directly into an area of the spine called the intrathecal space, patients receive a dosage of the drug right into a targeted site at the spinal cord. The delivery tool is a pump that injects the medication into the cerebrospinal fluid – that is, the fluid that surrounds the spinal cord and the nerve roots. A far smaller dosage of baclofen can be utilized, with greater positive results and far fewer side effects.

The intrathecal pump is surgically implanted under the skin of the abdomen. It provides the medication through a soft catheter directly into the fluid. The pump can store and release the medicine via a programmable timer that gives instruction on how much medication to administer and how frequently to provide the medicine. While smaller doses and fewer side effects are the top priorities, this delivery method also allows for adjustable medication rates. The device comes in various sizes for differing body types, so it is an option for people of all ages and body types.

The reduction of chronic pain is a key factor because patients whose pain is under control are more likely to be active, follow treatment protocols, have an improved quality of life, and take better care of themselves.

Although there is no universal approach to combatting spasticity and pain, doctors in all fields should be aware of the efficacy of intrathecal pumps. They – and their patients – benefit tremendously.

*Dr. Ozaktay is a physician with Anesthesia Pain Care Consultants. He is a noted lecturer on the subject of reducing pain and spasticity. He is fellowship trained from Dartmouth-Hitchcock Medical School with the expertise in implantable devices. Dr. Ozaktay has an extensive, 12 years of internationally recognized “spine” research background and holds Journal of Spine Editorial Board membership.*