

## Surgery without “Going Under”

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### **T**argeted Pain Relief Avoids Side Effects of General Anesthesia, Improves Recovery

Every year, 20 million patients in the United States undergo surgery requiring the use of general anesthesia. For some patients, the side effects of “going under” are more uncomfortable than the procedure itself. Common complaints include nausea, vomiting, mental confusion, sore throat, constipation and itching. For patients seeking a targeted approach to pain relief that speeds recovery, regional anesthesia may be the answer.

“Regional anesthesia offers patients a powerful form of customized pain relief that may be taken home if needed,” said Edward Mariano, MD, Chief of the Division of Regional Anesthesia and Acute Pain Medicine at UC San Diego Medical Center. “Post operatively, patients reduce or avoid the use of narcotics such as Vicodin and Percocet and return home sooner due to reliable and specific pain relief.”



Mariano said that regional anesthesia offers a powerful form of customized pain relief.

Rather than putting the whole body to sleep, regional anesthesia focuses on the part of the body that needs repair. Before surgery, an anesthesiologist uses ultrasound guidance to inject numbing medication around specific nerves, numbness which lasts from two hours to several days. For outpatient procedures, patients do not require intubation and can breathe without assistance. After surgery, the anesthetic may continue to be delivered by a small portable infusion pump in the hospital or at home.

“Without loss of consciousness, patients who have a nerve block may have a range of procedures such as facial, hand, breast, foot and ankle surgery, even hernia repair,” said Mariano. “Patients may choose to remain awake or be sedated for the surgery. Either way, patients are more alert and active immediately following their procedure if regional anesthesia is used.”

Most patients who undergo a combination of regional anesthesia and outpatient orthopaedic surgery at UCSD Medical Center go home within an hour after their procedure. In a UCSD study of shoulder patients, those who received a continuous nerve block for two days required no additional oral pain medication. Other studies showed that patients with continuous nerve block infusions at home suffer fewer sleep disturbances and enjoy an overall better quality of recovery compared to patients who take narcotics alone. Overall, the studies show that sustained pain relief following surgery improves recovery by decreasing pain-related functional impairment and disability caused by narcotics.



The regional anesthesia team at UC San Diego Medical Center uses ultrasound guidance to pinpoint the nerve that requires numbing.

“Unlike the traditional intravenous administration of narcotics or epidural infusion, we found that a continuous nerve block following total knee replacement provided extended relief without prolonged hospitalization, suggesting a long-term benefit for a short-term intervention,” said Mariano.

Mariano further explained that patients with pre-existing cardiovascular or pulmonary conditions, and pregnant women and children in particular, benefit from an approach that does not impact the brain or other vital organs.

In the case of major surgery such as total hip or shoulder replacement, a combination of general anesthesia and regional anesthesia may be ideal. San Diego resident Gregory Stress, 59, found that with a dual approach he had better pain relief and a more rapid recovery compared to previous spine surgeries.

“The pain relief following my hip replacement surgery was tremendous,” said Stress. “I only took pain medication for the first 24 hours. I went home two days after surgery and never needed to fill the prescription for Oxycontin. Right away, I could shower, shave, cook and even walk stairs.”

Mariano founded the UC San Diego Regional Anesthesia Fellowship, California’s first advanced training program in regional anesthesia to be recognized by the American Society of Regional Anesthesia. Mariano travels abroad twice per year to the Philippines and Ecuador as a volunteer

anesthesiologist using regional anesthesia for orthopaedic surgery and pediatric facial plastic surgery.

Patients who would like to learn more about anesthesia options at UC San Diego Medical Center may call 800-926-UCSD.

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