

**D**octors agree that a decision to undergo an elective surgical procedure is not one to be taken lightly. Surgery comes with inherent risks, one of which is post-surgical pain. In addition to the concern about pain management, the increasing attention on the opioid crisis has put a spotlight on responsible prescribing and protecting patients from the risks of addiction—while still providing effective pain management.

Effective pain management is a complicated issue that fully engages the attention of Dr. Cindy Wu, who recently joined Dr. Cynthia Gregg, in her practice, Cynthia Gregg, MD, FACS Face & Body Specialists.

“My approach to post-operative pain involves an opioid-sparing protocol,” Dr. Wu explains, “in which a combination of non-opioid medications is used in a specific timed sequence to begin managing pain before surgery begins.”

A plastic surgeon specializing in breast and body plastic surgery, Dr. Wu is experienced in managing post-operative pain.

“The opioid crisis in the United States is serious and we, as providers, have a duty both to our patients and to the general public to use these drugs responsibly,” she notes.

“That said, there is still a time and place for opiate use in pain management. However, by using an opioid-sparing protocol, my patients need fewer opioids post-operatively while still achieving appropriately controlled pain at home.”

#### PRE-OP PREPARATION FOR POST-OP PAIN

A patient we’ll call Camilla was terrified of all aspects of surgery: the surgery itself, the use of anesthesia, the likelihood of significant pain, and a challenging period of recovery. But Camilla had 30-year-old breast implants that were only designed to last 10 years, and they needed to be replaced.

“One of Camilla’s implants was ruptured,” says Dr. Wu, “and she had a hardening around the implant. She wanted both implants and the hardened capsule to be removed. As I discussed her options, it became clear to me that while Camilla was nervous about the anesthesia and pain, she was also afraid of having to take opiates after surgery. With all the attention on the addictive nature of these drugs, she was uncomfortable with the idea of taking them.”

Dr. Wu notes: “It is a very small percentage of patients who become addicted to post-operative medications. But a patient being uncomfortable with her treatment plan is a non-starter for me.”

So Dr. Wu discussed her opiate-sparing approach with Camilla.

“To decrease the need for strong post-operative opioids, I use an innovative cocktail of medications to pre-emptively prevent the brain from recognizing typical signs of pain, thereby decreasing the body’s pain response before it’s even begun,” she explains.

“The protocol involves taking medications such as Celebrex, which is an anti-inflammatory, Gabapentin, which works on the nerves, and Zofran, which is an anti-nausea medication. These medications are started a day before surgery, and maintained post-operatively. When we pre-treat the pain and nausea receptors up front in this way, it sets the brain up to require fewer narcotics after surgery—and sometimes none at all.

“Opioids are always there as a backup,” Dr. Wu continues, “but that’s not the default. The default is for those



Dr. Wu

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medications to be in the system and working on those nerve receptors to calm down the pain loop, and to calm down the inflammatory response beforehand, so that the surgical stimulus simply doesn’t create a huge pain response in the first place.”

#### INTRA-OP PAIN CONTROL

As Dr. Wu discusses her approach it is clear that, when it comes to pain, prevention is key. Reducing severe pain is a much taller order than preventing it, and Dr. Wu leaves nothing to chance when it comes to the comfort and recovery of her patients.

“During a breast procedure,” she explains, “I do what’s called an intercostal nerve block in addition to traditional anesthesia. With a nerve block, I am putting local medication right at the site where the nerves come out, so for a breast procedure that is just below the ribs. The purpose of this is two-fold: during surgery, although you are unconscious and have no awareness of pain, your body is still capable of responding to the stimulus of surgery. This may present as an increased heart rate or rising blood pressure—signs that the body is responding to pain. As we monitor these responses, we are able to determine if more anesthetic is needed to inhibit the body’s signaling and experience of pain, and the nerve block is a very effective way to do this without adding more systemic medication. Less systemic medication means less chance of that post-anesthesia “hangover” that leaves you feeling groggy, disoriented, and nauseated.”

**“My approach to post-operative pain involves a combination of non-opioid medications used in a specific timed sequence to begin managing pain before it even begins.”**

The second purpose of the local anesthetic, explains Dr. Wu, “is that it provides pain relief for hours after surgery. This is important because when a patient wakes up in the recovery room in comfort instead of pain, fear is reduced—which in itself reduces pain—and the brain is primed to require less narcotic medication afterwards.”

#### RECOVERY

Immediate post-operative pain control has its obvious perks, but new developments in anesthetic medications now mean Dr. Wu is often able to provide non-opioid pain management well into the recovery phase. This was an important point for Camilla.

“New local anesthetics can last for up to 72 hours,” Dr. Wu says. “For many of my patients, this is long enough to get them through the days that would typically bring the most discomfort, so that by the time the medication is wearing off, the body is already well on the way to recovery.

“Additionally, these longer-acting meds allow patients to participate in rehabilitation activities sooner, speeding up recovery time.

“Recovery is all about pain management,” Dr. Wu says. “If you don’t wake up disoriented and in pain, you aren’t going to experience the fear of pain. Effective, non-opioid pain management also means getting back to your life, with confidence, energy, and feeling revitalized as quickly as possible. That is our ultimate goal.”

As for Camilla, she came through her surgery without fear, without pain, and without oxycodone. “I have been amazed,” she says. “I have only taken Tylenol and have had almost no pain at all. I had surgery in the morning, and was puttering around my house and playing with my grandchildren (carefully) that afternoon. The whole experience was wonderful,” she says smiling. “The office is beautiful, the staff was relaxing and friendly, and Dr. Wu was amazing. I interviewed five or six surgeons over the last few years, and Dr. Wu is the only one who truly listened to me, developed a plan we were both happy with, and took all the time I needed to feel comfortable. She even sent me flowers the day after surgery,” Camilla says smiling. “This has truly been a great experience.”

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