
pain relief

easing the discomfort of
knee replacement surgery

by Diane Hoover

Shanna Tanaka thought she knew all about knee replacement surgery. After all, she had gone through the procedure once before.

“I had osteoarthritis in my right knee. It was so debilitating, practically all I could do was come home after work and lay on the couch,” says Tanaka, a 53-year-old grandmother of one. “It was having a very negative impact on my quality of life. I had partial knee replacement surgery in 2008. The procedure was successful, but it was really painful. Fortunately, I had a full recovery and got back to playing golf and being active.”

In July, 2009 Tanaka had partial knee replacement surgery on her other knee. In just a few months, she was back to playing golf and enjoying a much anticipated trip to Hawaii.

“Frankly, I wasn’t looking forward to doing it again,” continues Tanaka, who works for the Hawthorne Police Department. “But this time around, it was a 100 percent different experience. It was much easier on my body. I was practically pain-free.”

The difference? A pain relief system called femoral nerve block.

* nerve blocks

The femoral/sciatic nerve block combination is an effective weapon against pain after knee replacement surgery. The technique uses an



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Orthopedist Nicholas Silvino, M.D., and Shanna Tanaka, partial knee replacement surgery patient.



infusion catheter and single-shot nerve injection to deliver pain medication directly to the nerves that transmit the most pain following knee surgery. The effects of the “block” can last for many days, allowing for a nearly pain-free recovery.

“The femoral/sciatic nerve block combination provides good results for partial and total knee replacement patients,” says orthopedist Nicholas Silvino, M.D. “In the period right after surgery when patients experience the most distress, they are practically pain-free. Because patients are in less pain, they are more inclined to participate in physical therapy. This allows for fast recovery and a quick return to mobility.”

“The femoral/sciatic nerve block combination remains in place for the entire length of stay—up to four days—allowing us to deliver pain relief in multiple ways,” continues Silvino. “By using the self-dose pump on the infusion catheter, patients are able to control their own pain management.”

“Torrance Memorial performs the fourth highest number of total joint replacement surgeries in Los Angeles County,” says anesthesiologist Patrick Yang, M.D. “We now use the femoral/sciatic nerve block combination for the majority of partial and full knee replacement surgeries. Getting the block is no more painful than getting an IV. Because **continued on page 50**

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continued from page 7 it is a local anesthetic, it allows us to considerably cut back on general anesthesia and narcotics, which reduces side effects such as drowsiness, nausea, dizziness and constipation.”

anesthesia is injected near the spinal cord and nerve roots to block sensation in an entire region of the body such as the knee. Epidural anesthesia involves the insertion of a flexible catheter into the space between the spinal column and outer membrane of the spinal cord in the lower back. The anesthetic medication is injected into the catheter.

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“Epidurals are effective for full knee replacement surgery,” says orthopedist Todd Shrader, M.D. “The procedure is also effective at preventing blood clots, and it aids recovery by keeping the muscles strong and avoiding the need for a brace.”

“Other techniques such as epidurals are also effective for knee replacement surgery,” adds Yang.

“Through the epidural, we are able to administer a variety of medications, and the dose can be adjusted up and down,” adds Shrader.

*** epidural anesthesia**

Another alternative for pain relief during knee replacement surgery is an epidural. With this type of procedure (often used in childbirth),

*** recovery phase**

Even before their procedure, candidates for joint replacement surgery are encouraged to begin anticipating the important recovery phase by attending Torrance Memorial’s Preoperative Knee



knee replacement surgery

Replacement class. Using input from nurses, pharmacists and physical therapists, these weekly classes are designed to prepare joint replacement patients for the upcoming experience. Participants learn what to expect, how best to prepare and what the recovery process will be like.

Joint replacement patients receive three phases of rehabilitation therapy: inpatient, home care and outpatient. Directly after surgery, patients receive physical therapy in the hospital. Physical therapists help them get in and out of bed, straighten and bend their legs and use a walker. Some patients may continue their rehabilitation in Torrance Memorial's Transitional Care Unit.

After an assessment is made of their living situation, patients who return to their residences receive home therapy. Physical therapists help with exercise, home safety and prescriptions, and occupational therapists help with activities of daily living such as bathing and dressing.

As the final part of their recovery plan, Torrance Memorial joint replacement patients are referred to the medical center's outpatient Rehabilitation Center. There, therapists help them strengthen muscles, walk without assistance devices and return to favorite physical activities.

"It is so important that joint replacement patients understand the importance physical therapy plays in successful recovery from surgery," says longtime Torrance Memorial physical therapist Beryl Tokunaga, P.T. "Patients who are informed, motivated and willing to work hard experience good results and are able to once again enjoy healthy, active lifestyles." **vev**

Knee replacement surgery—also known as total knee arthroplasty—can help relieve pain and restore function in severely diseased knee joints. A knee replacement can decrease pain and disability in people with knee problems caused by osteoarthritis, rheumatoid arthritis and other degenerative conditions. During knee replacement, an orthopedic surgeon cuts away damaged bone and cartilage from your thighbone, shinbone and kneecap and replaces it with an artificial joint (prosthesis) made of metal alloys, high-grade plastics and polymers. Doctors usually secure knee joint components to the bones with a special cement.

Knee replacement may help you if:

- You have pain that limits activities.
- You have limited function or mobility.
- You've tried other methods to improve symptoms that failed.
- You have a knee deformity.
- You're generally healthy.

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