

# Physician Update



Lucile Packard  
Children's Hospital  
at Stanford

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## Pain Management Team Expands Services

### COMPREHENSIVE INPATIENT AND OUTPATIENT CARE HELPS RESTORE CHILDREN TO NORMAL LIFE

Pain management has come a long way since the days when physicians mainly used anesthesiology techniques to reduce pain. While many treatments still draw on anesthesiology, the Pain Management Service at Lucile Packard Children's Hospital now incorporates a wide spectrum of approaches, including physical and occupational therapy, psychotherapy, psychiatry, advanced nursing care, massage therapy, education and integrative medicine.

"It's a multidisciplinary program that uses the talents of many specialists to provide comprehensive pain management, symptom management and rehabilitation for children with pain and life-limiting diseases," said Elliot Krane, MD, director of the Pain Management Service at Packard Children's.

The program provides inpatient and outpatient services, including an outpatient intensive rehabilitation program for children with chronic pain. Outpatient rehab services take place at a state-of-the-art clinic, just opened in 2010, that includes new gym equipment and a biofeedback

room. The outpatient pain management clinic will soon move to a larger space near the rehab clinic, and the team is working on expanding inpatient services.

### Around-the-Clock Care

The inpatient pain management service operates 24 hours a day, seven days a week. Usually, the team sees patients with acute pain from surgeries, trauma, or exacerbation of chronic conditions such as cystic fibrosis and cancer. The service also manages detoxification of children who have become physically dependent on sedatives during long stays in the intensive care unit.

The pain management team works closely with the anesthesiologist to plan for postoperative pain control. "We don't wait for the surgery to be over and for the child to develop pain," Krane said. "The planning for the first few days after the surgery really begins before the operation."

Strategies to reduce pain can include conventional analgesic drug management, epidural analgesia and regional nerve blocks, which numb the pain by delivering local anesthetics and other chemicals to specific nerves. The inpatient service also

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offers psychotherapy, massage therapy and integrative medicine techniques such as acupuncture. Carly, a therapy dog, often helps calm or motivate kids.

Many of these treatments are also used to manage pain in infants. The team adjusts the techniques and dosing as needed to account for the baby’s physiological stage and drug metabolism. A nonverbal scoring system is used to evaluate pain, incorporating factors such as blood pressure, heart rate, crying, facial expression and limb position.

### **Comprehensive Care for Chronic Pain**

At the Pain Management Clinic, a multidisciplinary team offers outpatient services to patients with chronic pain. Conditions treated include headache disorders, chronic abdominal pain, fibromyalgia, and chronic pain associated with diseases such as rheumatoid arthritis and cystic fibrosis. Many patients have complex regional pain syndrome (CRPS), which develops when the child’s nervous system overreacts to a minor injury such as stubbing a toe.

Patients receive a two-hour evaluation by a pain physician, a psychotherapist and often a physical therapist. The team then develops a therapy plan, which might include drug management, nerve blocks, psychotherapy, referrals to the rehab center, or hospitalization.

Physical and occupational therapists, based at a new outpatient rehab services clinic at 321 Middlefield Road in Menlo Park, use a variety of techniques to restore function. The team works on improving flexibility, strength, physical endurance, balance and coordination, as well as desensitizing the limb and helping the child to practice everyday tasks. An antigravity treadmill allows kids to walk without bearing their full body weight and helps assuage “the component of fear and anxiety when they start taking those first steps again,” said Leah Wolf, PT, DPT, a physical therapist at Packard Children’s. “It creates a safe environment for them.” The clinic’s biofeedback room has sensors that can show kids information about their heart rate or muscle activity, so they can respond by using breathing techniques or relaxing certain muscles.

Psychotherapy is crucial to helping kids get through the physical and occupational therapy, which can be very painful. “If you’re an adult, you might have the mental strength and drive to soldier through that,” Krane said. “But if you’re a 10-year-old, you don’t.” A psychotherapist provides support by acknowledging that the pain is real and teaching coping strategies, such as self-hypnosis.

Cognitive behavioral therapy can address the anxiety and depression that often come with chronic pain.

“We provide skills to increase the patient’s ability to take ownership and control over their pain,” said Rashmi Bhandari, PhD, a pediatric pain psychologist at Packard Children’s.

### **Intensive Rehabilitation**

One of the most unique components of the pain management service is the Packard Pediatric Pain Rehabilitation Center (PPPRC), an intensive outpatient program that usually lasts about four to eight weeks. Each day, patients receive four hours of physical and occupational therapy, an hour of psychotherapy, and two hours of school. The program includes weekly family psychotherapy and debriefing sessions to discuss the child’s progress.

The program was launched in 2010 to more effectively help patients, particularly kids with CRPS, return to normal activities. In the past, these children usually had to be hospitalized. “We’re trying to normalize lives,” Krane said. “And when you’re in the hospital, it’s a very abnormal environment.”

Part of that normalization happens during the school sessions, where kids learn in a small classroom alongside other children with medical conditions. The school is a “halfway house” where kids can start regaining their social skills, Krane said. The teacher coordinates with the patient’s regular school, and kids can receive course credit. Together, the teacher and psychotherapist can help children overcome anxiety about returning to school.

The program is one of only about five of its kind in the country. Patients are usually at least 12 years old, although Krane said the program would probably start taking younger kids this summer.

### **Expanding Services**

Other improvements are in store as well. This summer, the outpatient pain management clinic will move to expanded facilities in the same building as the rehab clinic, allowing more frequent team meetings and evaluations of rehab patients. The team also plans to establish an inpatient pain rehab program, which will offer services similar to the PPPRC for children who are too impaired to enter an outpatient program....

Many kids who come through the pain management program return to their regular activities, such as dancing and Little League. Sarah Willhalm, MS OTR/L, an occupational therapist at Packard Children’s, recalls one nine-year-old girl with CRPS who completed the intensive outpatient rehab program and is now swimming competitively. “She was fully restored back to her life,” Willhalm said.

For more information about the Pain Management Service at Packard Children’s, visit <http://pain.lpch.org> or call (650) 497-8977. To refer a patient, call (800) 995-LPCH (5724).