MULTIDISCIPLINARY TEAM HELPS CHILDREN MAXIMIZE MOBILITY, FUNCTION AND COMFORT

The Pediatric Limb Lengthening and Complex Reconstruction Center provides comprehensive care for children and young adults who have a broad range of limb-length differences or deformities of the upper and lower extremities. Our internationally renowned team has the training and experience to use advanced techniques that enable patients to reach their highest levels of function and mobility in a safe and efficient manner.

CONDITIONS TREATED

Our team members are experts in diagnosing and caring for pediatric patients with all types of extremity disorders, including:

- Congenital limb deficiencies and differences
- Developmental conditions including Blount’s disease and congenital pseudoarthrosis of the tibia
- Acquired limb differences related to traumatic injuries, infections and tumors
- Bone loss resulting from injury, tumor, infection or surgery
- Limb differences linked to complex syndromes
- Limb length discrepancies (upper and lower limbs)
- Short stature
- Pediatric hip disorders
- Early stages of hip, knee and ankle arthritis

INFORMATION / REFERRALS

- PHONE (877) 822-4453 (877-UC-CHILD)
- EMAIL limbdifferences@ucsf.edu
SERVICES OFFERED

We offer a full range of surgical and nonsurgical modalities, such as limb lengthening, deformity correction and complex limb reconstruction. These include:

**Surgical Techniques**
- Minimally invasive surgery, including osteotomies
- Remote-controlled magnetic lengthening nails
- Computerized hexapod external fixators (orthopaedic system that corrects deformities on multiple planes)
- Guided growth procedures
- Masquelet technique (a combination of a temporary spacer and bone grafting)
- Joint preservation surgery
- Amputation reconstruction
- Microvascular surgery and tissue transfer
- Osteointegration
- Patient-specific instrumentation based on 3D modeling

**Non-Surgical Modalities**
- Advanced onsite inpatient and outpatient physical therapy
- Customized orthotics and prosthetics
- Electromyography
- Onsite 3D-printed patient-specific bone modeling

**WHY REFER TO UCSF?**
- Home of the only pediatric limb lengthening and reconstruction program on the West Coast
- Expertise in numerous relevant subspecialties including pediatric orthopaedics, orthopaedic trauma, orthopaedic oncology, sports medicine, hand surgery, rehabilitation medicine, pain management and plastic surgery
- Care available at UCSF Benioff Children’s locations in Oakland, San Francisco and Walnut Creek with supportive services from Child Life Services and social work
- Dedicated 17,000-square-foot inpatient rehabilitation center, with a spacious physical therapy gym and an outdoor terrain park
- Physical and occupational therapy at all locations
- On-site orthotics and prosthetics clinic
- Ability to care for and manage international patients and their families
- Academic partnership with the Limb Lengthening and Reconstruction Society: ASAMI-North America
- Affiliated with the UCSF Institute for Global Orthopaedics and Traumatology

OUR TEAM

Sanjeev Sabharwal, MD, MPH  
Program director  
Pediatric orthopaedic surgeon

Monica Arceneaux, RN  
Nurse

Alex Fay, MD, PhD  
Pediatric neurologist

Matthew Garibaldi, MS  
Certified orthotist and prosthetist

Alexander Geraldi, PA-C  
Physician assistant

Igor Immerman, MD  
Upper extremity surgeon

Jason Jagodzinski, MD  
Pediatric orthopaedic surgeon

Bamidele Kammen, MD  
Pediatric radiologist

Utku Kandemir, MD, FACS  
Orthopaedic trauma surgeon

Kristin Livingston, MD  
Pediatric orthopaedic surgeon

Stephen Long, MD  
Pediatric pain specialist

Yumi Mitsuya, MD  
Pediatric rehabilitation specialist

Saam Morshed, MD  
Orthopaedic trauma surgeon

Mai Ngo, MD  
Pediatric rehabilitation specialist

Shawn K. Norris, PT  
Certified physical therapist

Richard J. O’Donnell, MD  
Pediatric orthopaedic surgeon

Nirav Pandya, MD  
Pediatric orthopaedic surgeon

Chelsea Ratilainen, RN, MSN  
Nurse

Kathleen (Kaye) Rimando, RN, BSN  
Nurse

Kathryn (Kate) Sigford, MD  
Pediatric rehabilitation specialist

Chau Tai, MD  
Plastic and reconstructive surgeon

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