



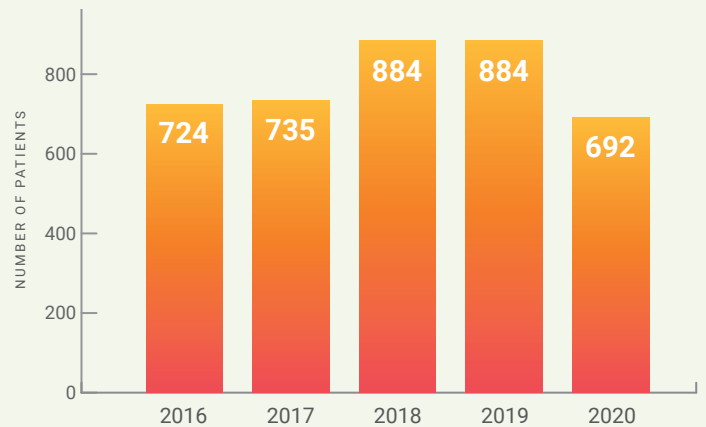
2021

Are you considering a total joint replacement for yourself, a loved one or a patient? At the PAMF Center for Total Joint Replacement, our goal is to provide leading hip and knee replacement services in the Bay Area through team-based care, continual improvement, ongoing innovation and outcome tracking. Our high volume of diverse patients, ranging in age from 23 to 103 and representing a broad spectrum of races, ethnicities and lifestyles, gives us the experience and skill to achieve excellent outcomes.

A healthcare registry includes hard data that directs quality improvement efforts. Our joint replacement registry described in this report, along with related research, demonstrate our commitment to a simple focus: **to improve mobility, limit joint pain and get people back to the activities that make life meaningful.** Thank you for reviewing our work and practice.

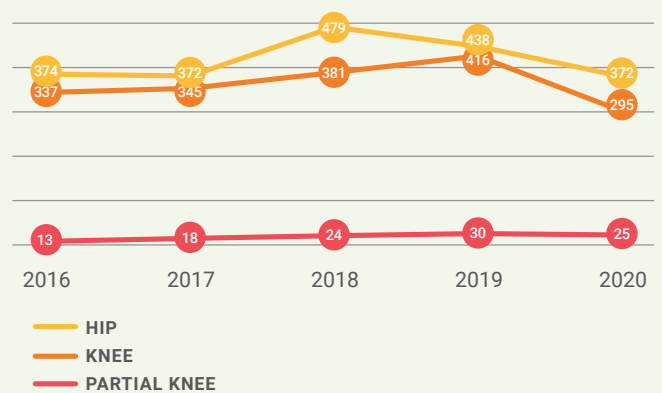
PAMF JOINT REPLACEMENTS | 2016-2020

Total cases by year of total hip, total knee and partial knee replacements



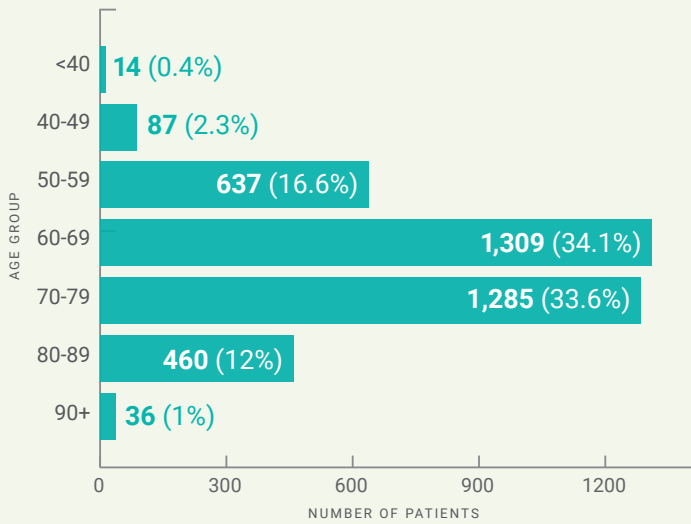
PAMF JOINT REPLACEMENT CASE VOLUME | 2016-2020

Total cases by body part

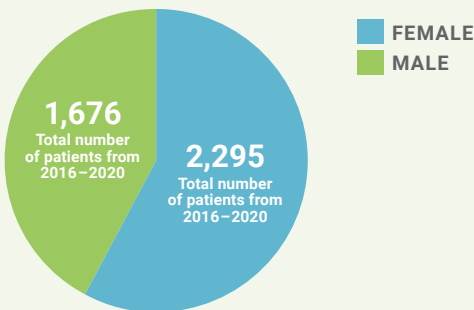
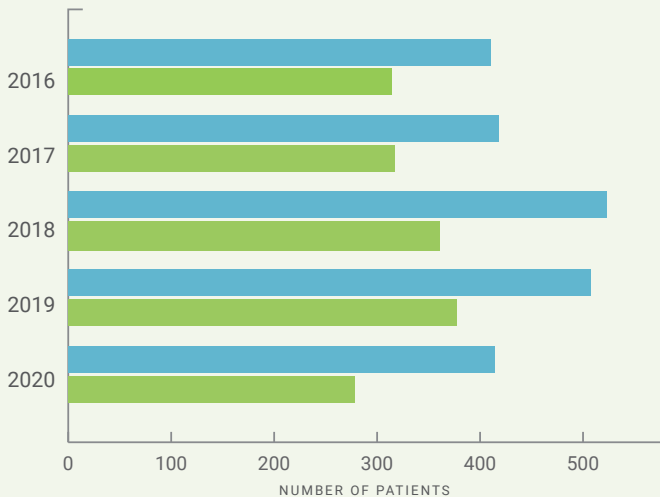


PAMF JOINT REPLACEMENT PATIENT AGE | 2016–2020

Cases out of a total of 3,829 patients



PAMF JOINT REPLACEMENT PATIENT GENDER | 2016–2020



Infection Prevention

At the PAMF Center for Total Joint Replacement, a key aspect to our success is the reduction of postoperative infections. The national average for infection within one month of joint replacement surgery hovers between 0.5–1%. Independent data from the National Surgical Quality Improvement Program (NSQIP) has identified only one deep infection and five superficial infections in nearly 4,000 cases from our program (2016-2020), or 0.15% – three times better than the national rate.

Infection prevention is a cornerstone of our program. We focus on:

- Preoperative patient health optimization, including diabetic blood sugar control and smoking cessation.
- Patient education on antisepsis protocols, such as routine screening for methicillin-resistant staph aureus (MRSA) and preoperative body cleansing with chlorhexidine.
- Pre- and postoperative wound antisepsis.
- Perioperative antibiotics.

Even one infection is detrimental to the health and well-being of our patients. That’s why we’re committed to the pursuit of the latest technology and research to prevent infection.

Patient-Reported Outcomes

Since 2016, PAMF Center for Total Joint Replacement has gathered data from patients with extensive surveys. The collected data tells a compelling story of patient improvement that stretches from before surgery to early recovery and up to two years post-surgery.

Our two major surveys are HOOS and KOOS: the Hip or Knee Osteoarthritis Outcome Survey, respectively. We distribute the survey to patients through an electronic program developed within our practice. The survey requests a patient’s feedback on every stage of their joint-replacement journey, from the decision to undergo surgery through the rehabilitation progress. In addition to informing our own practices, we make the data available to national registries as a contribution to care improvement and quality control.

Using a scale from 0 to 100, the HOOS and KOOS surveys ask patients about the presurgical performance of their problematic joint, with 0 being complete disability and 100 being normal joint function. A score of about 50 is the point at which many patients decide on surgery.

After joint replacement surgery, significant improvement appears by the three-month mark, with continued improvement beyond this. Two years after surgery, hip replacement patients report an average score of 93; knee replacement patients report an average of 86.

We're proud of this patient-engagement effort – which has been expanded to other PAMF specialties – and of the consistent results that we deliver for our patients. In 2019, the American Academy of Orthopedic Surgery invited our team to present at its national meeting, especially noting the consistency with which we engage our patients through digital means.

Discharge Status

During the past five years, the PAMF joint replacement registry tracked an interesting phenomenon: the rapid increase of discharge to home after surgery. In 2016, 34% of patients went to skilled nursing facilities after their hospital discharge, with the remainder going home. By 2019, this percentage had dropped to 23%; since the COVID-19 pandemic it has plummeted to less than 5%.

Today, more than 95% of patients go home after an average hospital stay of about 1.7 days. We attribute much of this change to:

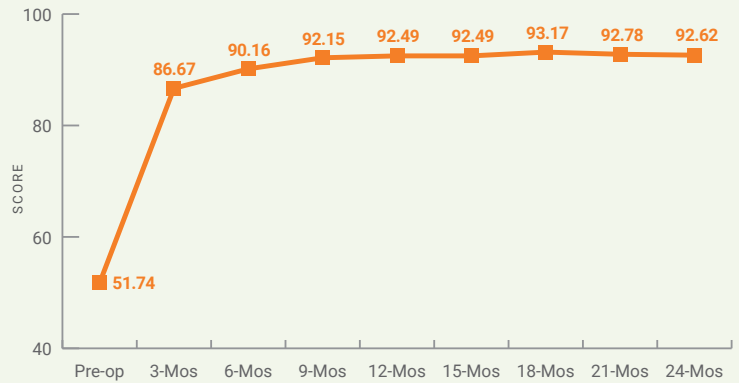
- Perioperative protocols to help patients control pain and nausea.
- Limited blood loss.
- Earlier physical therapy.

All of these help case managers and nurse navigators prepare patients for safe discharge for safe discharge to home. The COVID-19 pandemic further solidified this work and stimulated the formation of an ambulatory surgical center (ASC) joint replacement program, launched in 2021.

Through appropriate patient selection and patient support in the home environment, we anticipate the discharge-to-home trend to continue.

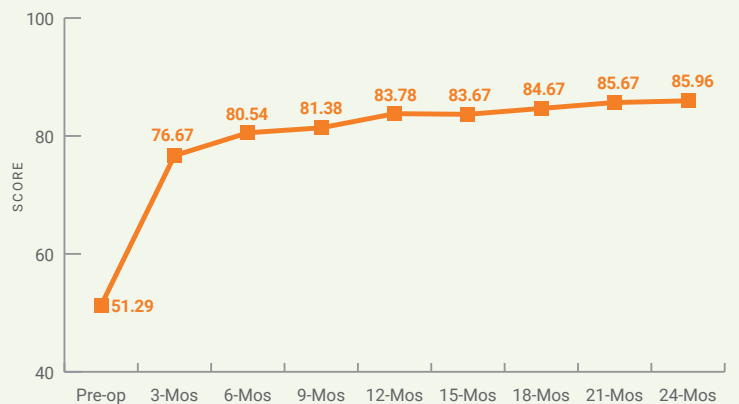
HOOS OUTCOME SCORES

Higher score indicates greater function

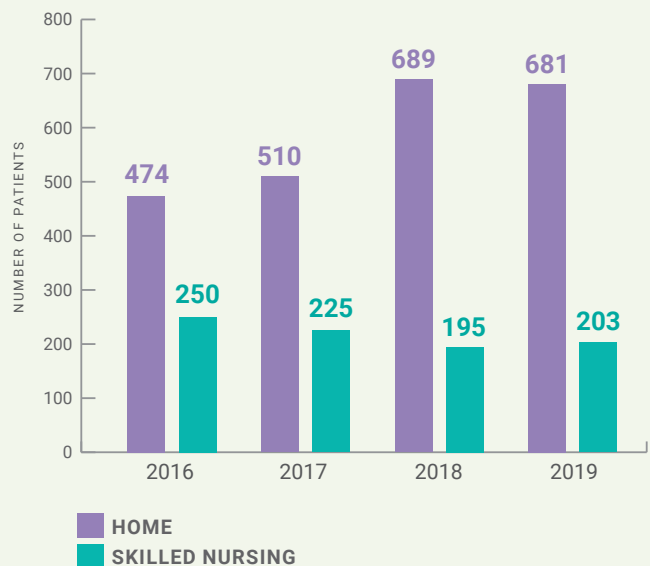


KOOS OUTCOME SCORES

Higher score indicates greater function



PAMF JOINT REPLACEMENT DISCHARGE STATUS



“ Played my first [postsurgery] competitive tennis match today and won. I don't have the words to thank you enough! ”

– 65-year-old female, hip replacement

“ Thank you for your expert work. I can walk without pain! A miracle. ”

– 75-year-old female, knee replacement

“ Last summer I backpacked in the Sierras at 11,000 feet and caught my first trout. Couldn't be happier with my new hip. ”

– 58-year-old male, hip replacement

Joint Replacement Surgeons at PAMF



Bradley Graw, M.D.



James Hartford, M.D.



John Lannin, M.D.

Total Joint Replacement Research

Our commitment to patient care is buoyed by our research interests. Information gleaned from research contributes to the daily care of patients with hip and knee replacements. For example, for more than a decade we've worked on the development of the direct anterior approach to total hip arthroplasty, with papers published in the *Journal of Arthroplasty and Hip International*.

Our researchers' peer-reviewed publications on the direct anterior approach to hip replacement have focused on:

- The procedure's learning curve.
- The risk of fractures, including greater trochanteric fractures.
- The implications of body mass index on the risk of complications.

Our team members have also presented posters on these topics (and on value-based care) at meetings of the American Academy of Orthopedic Surgery and the American Association of Hip and Knee Surgeons.

We're directing current research toward athletic endeavors, specifically alpine skiing, which patients may want to return to after joint replacement surgery.

Awards and Recognitions

- Sequoia Hospital in Redwood City, the site of PAMF Center for Total Joint Replacement, earned a five-star rating from the Centers for Medicare and Medicaid Services (CMS) – a rating reserved for approximately the top 5% of hospitals nationally.
- CMS data shows a 1.4% complication rate for hip or knee replacement at PAMF, compared with the national rate of 2.4%
- U.S. News and World Report recognizes the PAMF program as “high performing” for both hip and knee replacement.
- The data-rich National Surgical Quality Improvement Program (NSQIP) collects and examines complication rates, readmission rates and other key indicators of surgical quality. For all years measured (2017–2019), the PAMF program performed in the top 10% of all programs nationally for surgical site infections, hospital readmission rates and overall morbidity and mortality.



PAMF Center for Total Joint Replacement

Palo Alto Center
795 El Camino Real
Lee Building, 3rd Floor
Palo Alto, CA 94301
650-853-2018

sutterhealth.org/jointreplacement

