

Total Joint Replacement Outcomes 2020



[BayCareJointReplacement.org](https://www.BayCareJointReplacement.org)

Orthopedic Review Committee

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Table of Contents

Letter from Leadership	4
Total Joint Replacement Surgery Overview	6
■ Comprehensive Care for Quality Outcomes	7
■ Total Joint Pathway	7
■ Multimodal Pain Management.....	9
■ Orthopedic Nurse Navigators.....	11
Total Joint Advanced Tecgnology	12
■ Advanced Technology.....	13
■ Robotic-Arm Assisted Surgery.....	14
■ Total Joint Navigation	17
Same-Day Surgery	18
Data.....	22
The BayCare Network.....	26

Letter from Leadership

Dear Colleague,

We're pleased to provide this summary of key highlights from our total joint replacement programs across our health system. Read about our services, with volume and outcomes data, as well as key points that set our program apart.

As the regional leaders in hip and knee replacements, BayCare's total joint replacement programs focus on quality outcomes and continuous performance improvements. That's why we're proud to say we perform more hip and knee replacements than any other health system or hospitals in the Tampa Bay and West Central Florida regions.

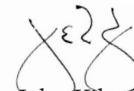
Our joint replacement programs are designed to provide our patients with the latest surgical modalities, technological advances and customizable care plans facilitated by our comprehensive orthopedic team, including dedicated orthopedic nurse navigators. Nearly all surgeons in our programs participate in our total joint pathway for hips and knees, which is a clinical guideline combining best practice presurgical to postsurgical treatments and rehabilitation, and also

includes multimodal pain protocols, which are designed to control pain while minimizing the need for opiate pain medications. Our minimally invasive approaches for hip and knee replacements allow for less pain and a faster recovery.

Our hospitals, as part of BayCare, offer comprehensive forums for physicians, team members and administrators to share clinical expertise, outcomes data, research and translation of best practices. We're dedicated to closely monitoring our clinical outcomes, meaning we use national benchmarking data along with patient-centered care to achieve the best possible outcomes for our patients. We hope you can use this information to help with patient care and treatment decisions. For an orthopedic surgeon referral, go to BayCareJointReplacement.org.



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Total Joint Replacement Surgery Overview

Procedures: Total Hip Replacement, Total Knee Replacement, Total Shoulder Replacement

Comprehensive Care for Quality Outcomes

Our joint replacement programs cater to the needs of each individual patient with a comprehensive approach for hips, knees and shoulders. Presurgical education sessions help patients understand the process of joint replacement surgery, offer tips and insights of how to improve recovery, and develop a plan for going home. Our dedicated orthopedic unit is staffed with orthopedic nurses and uses specialized equipment to make it easier to get up and start walking at the appropriate time. Upon discharge, patients can receive quality care with BayCare's physical therapy programs or BayCare HomeCare, should it be required.

Total Joint Pathway

Our goal of clinical excellence means that our focus is always on quality measures, ensuring we achieve low complication rates and shorter lengths of stay. Surgeons at our hospitals use a unique total joint pathway, a clinical guideline that combines best practice presurgical to postsurgical modalities and more. Total hip arthroplasty (THA) and total knee arthroplasty (TKA) are among the most frequently performed and most successful elective operations in the United States. Total joint arthroplasty (TJA) of the hip and knee are projected to continue to have significant growth. There are wide variations in the quality and cost among hospitals and surgeons who perform these procedures. Given the increasing demand by patients for high-value care coupled with declining reimbursement rates, hospitals and surgeons

The pathway serves to improve outcomes by providing patients with a standard of care that's followed by all surgeons.

are joining together to optimize these services. Our hospitals implemented a TJA pathway in 2015. The care pathway begins in the surgeon's office when the decision for surgery is made, and remains in effect throughout the patient's journey, ending when they're seen for a follow-up appointment in the surgeon's office. The pathway serves to improve outcomes by providing patients with a standard of care that's followed by all providers. We've found that within the pathway we have:

- Improved communication between all providers, provider offices and departments within the hospital
- Decreased patient perioperative anxiety and improved compliance by mandating a preoperative TJA education class
- Preoperative optimization of surgical candidates, thus reducing perioperative and postoperative complications
- Improved pain control and reduction in opioid use secondary to the implementation of a multimodal pain protocol
- Early mobilization focusing on enhanced recovery and reduced postoperative complications
- Decreased hospital length of stay
- A higher percentage of patients discharged to home
- Increased patient satisfaction scores

Multimodal Pain Management

The orthopedic surgeons at our hospital use cutting-edge techniques and technologies which promote a more precise and accurate implantation of prosthetic components, and enhances the prospects for less pain, a more rapid recovery and an improved likelihood of being discharged directly to home. Multimodal pain protocols are designed to control pain while minimizing the need for opiate pain medications.

This involves the use of interventions before, during and after the surgery, including:

- Peripheral nerve blockade
- Regional anesthesia
- Local nerve blockade
- Ice therapy
- Non-opioid medications
- Therapy for range of motion





Orthopedic Nurse Navigators

Nearly all our hospitals feature orthopedic nurse navigators who guide our patients through total joint replacement. They coordinate a patient's care before, during and after joint replacement surgery. Nurse navigators work with patients and their families, physicians, nurses, therapists and other care team members to provide the best possible care, taking time to make sure all their patients' needs are met. They work closely with patients and their family members to form a relationship that promotes a positive experience, faster recovery after total joint replacement and comprehensive patient care. Surgery can be an overwhelming process and nurse navigators help the patient feel at ease, and coordinate individual, customized care plans from start to finish, answering any questions or concerns along the way.

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Total Joint Advanced Technology



Advanced Technology

Surgeons in our programs use state-of-the-art surgical equipment to help them improve outcomes through advanced precision, offering customized joint fitting for comfort and the life of the replacement. Minimally invasive techniques for the hip and knee allow for less pain and faster recovery times than traditional incisions. For example, physicians using robotic arm-assisted technology have access to special software to pre-plan surgery based on a patient's specific needs, and are given further assistance from the robotic arm-assisted systems, which the surgeon can use for greater surgical precision following the pre-programmed personalized plan.

Minimally invasive approaches for hip and knee include:

- Direct anterior approach: A minimally invasive procedure that involves a three- to four-inch incision on the front (anterior) of the leg instead of the back (posterior) of the leg. This makes it possible for the surgeon to reach the joint by separating muscles, instead of cutting and reattaching muscles.
- Direct superior approach: A minimally invasive procedure involving one small incision in the hip, allowing for minimal collateral damage to muscles. This leaves tendons undamaged and the hip's natural alignment intact.
- Mini posterior approach: A minimally invasive approach that involves separating—not cutting—the hip muscles to improve access to the hip joint
- Computer-assisted navigation for hip and knee replacement

Robotic-Arm Assisted Surgery

At some BayCare facilities, we provide access to the most up-to-date technologies including robotic-arm assisted surgery. This surgical system is used for total hip and total knee replacement procedures. The robotic-arm enables the physician to have a level of consistent precision,

unattainable with conventional instrumentation, to restore the feeling of the natural joint, allowing faster healing and better outcomes.

The advantages of the robotic-arm system include:

- Patient-specific preoperative planning for advanced surgical planning and intraoperative adjustments to aid in successful surgery
- Surgeon-controlled robotic-arm assisted resection for more accurate implant fit, while conserving bone and minimizing soft tissue damage
- Provides more accurate implant placement compared with manual procedure, reducing the potential for impingement, wear and dislocation
- Provider accurate leg length restoration to reduce the potential for patient discomfort and walking complications

Potential patient benefits:

- Greater range of motion
- Less blood loss, less need for postoperative transfusions
- Reduced length of hospital stay
- Less need for pain medication/narcotics
- Less scarring



Total Joint Navigation

Obtaining precise implant positioning and assembling an optimal combination of implants intraoperatively are key surgical objectives. Joint navigation is a computerized system that delivers real-time positional feedback using X-ray and a patented software analysis system engineered to work with the implants.

Potential Benefits of Total Joint Navigation

- Improved intraoperative visibility to geometries and positions that contribute to joint stability and critical variables
- Automated intraoperative analysis of the planned implant construct in order to highlight the effects of the joint restoration
- Enables surgeons to perform an intraoperative comparison of the operative leg with the other leg
- As a surgical tool, it augments our surgeons' experience by providing an important secondary check of joint stability in a manner that would otherwise be impossible.

Same Day Surgery



Over the past several years, BayCare has approached TJA surgery with an initiative driven toward improved outcomes for patients in both quality and patient satisfaction. By implementing a total joint arthroplasty pathway, we've successfully reduced unnecessary variation in care, length of stay, unintended outcomes and cost. We've reduced the average hospital length of stay for TJA patients from 1.85 days in 2018, to roughly 1.24 days in 2020.

One of the ways in which our care has improved has been through education to our surgeons, team members, patients and family members. We've found that increasing the education to all members of the surgical team can be correlated to improved outcomes. Setting patient expectations is critical to their success in clinical pathways.

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We've increased the percentage of patients discharged to home after TJA surgery from **89.5 percent** in 2018 to **95.5 percent** in 2020.

We've increased the percentage of patients discharged to home after TJA surgery from **89.5 percent** in 2018 to **95.5 percent** in 2020. In doing so, we've increased the number of patients undergoing outpatient TJA surgery in our facilities. Outpatient total joint arthroplasty allows for an alternative pathway to recovery for appropriately selected patients. By approaching surgical patients with individualized care plans, outpatient total joint arthroplasty is now a safe, cost-effective, outcomes-driven alternative at BayCare. With the Centers for Medicare & Medicaid Services' (CMS) decision to remove total knee and hip arthroplasty from the Medicare inpatient-only list, future demand for same day outpatient discharge for hip and knee arthroplasty is likely to increase.

Outpatient TJA at BayCare hospitals rose from 15.6 percent of overall TJA volume in 2018 to 83.7 percent of overall TJA volume in 2020.*

**Volume in 2020 was impacted by a temporary pause in elective procedures due to the COVID-19 pandemic.*

Patient selection is key to a successful outcome in outpatient or same-day surgery in total joint arthroplasty. Other essential pieces for improved outcomes are:

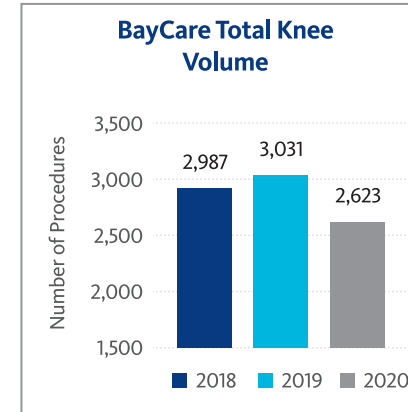
- Patient and family preoperative education (expectation management)
- Patient social support
- Surgeon and clinical team education and expertise
- Clinical pathways that are evidence based



Other essential aspects for improved outcomes include:

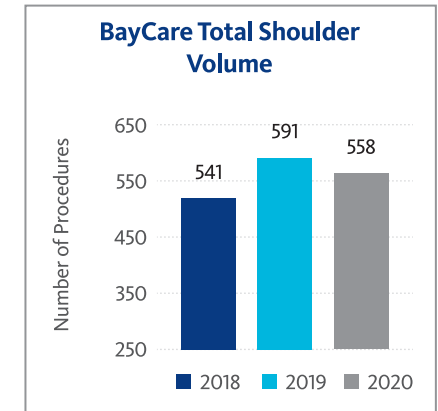
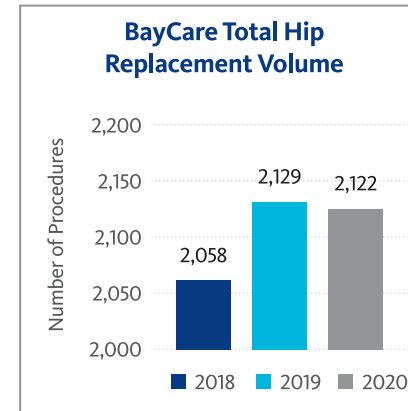
- Patient and family preoperative and postoperative education from a dedicated orthopedic Nurse Navigator/educator
- Surgeon and clinical team expertise
- Implementation of evidence-based clinical pathways
- Post-acute communication and follow up
- Active patient support system

Total Joint Pathway Data

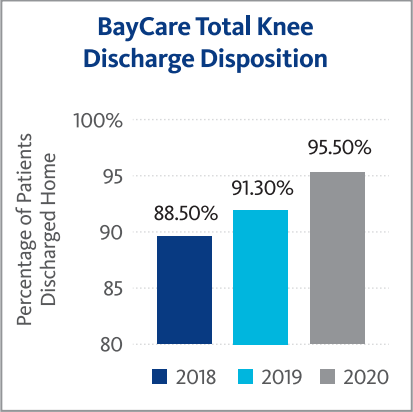
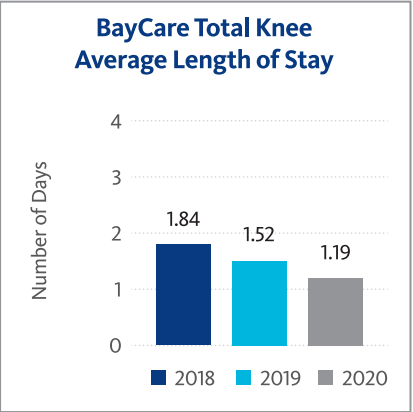


Volume
Number of Procedures

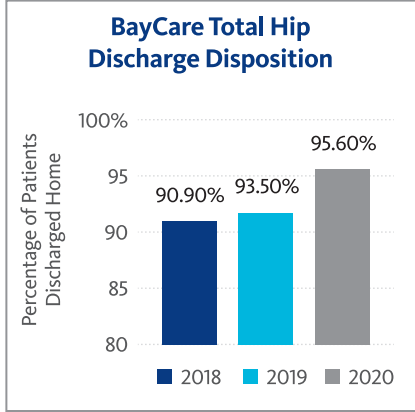
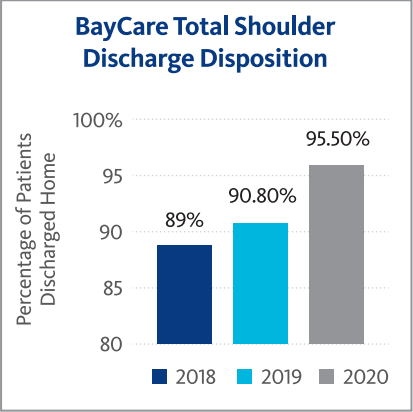
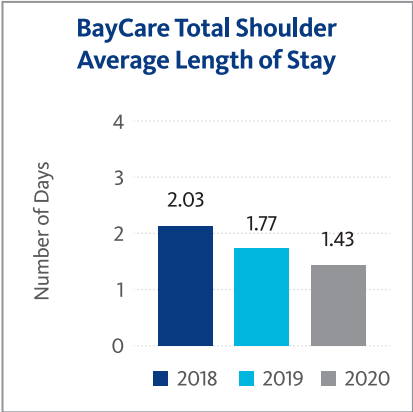
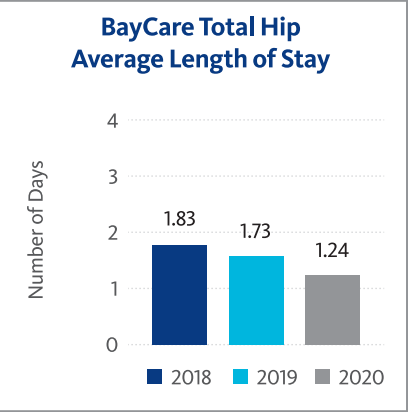
Volume in 2020 was impacted by a temporary pause in elective procedures due to the COVID-19 pandemic.



Length of Stay
Number of Days



Discharge Disposition
Discharge disposition is the percentage of patients who were discharged to their homes instead of rehabilitation facilities.



The BayCare Network

BayCare is a leading not-for-profit health care system that connects individuals and families to a wide range of services at 15 hospitals and hundreds of other convenient locations throughout the Tampa Bay and central Florida regions. Inpatient and outpatient services include acute care, primary care, imaging, laboratory, behavioral health, home care and wellness. Our mission is to improve the health of all we serve through community-owned health care services that set the standard for high-quality, compassionate care.

BayCare Hospitals

Bartow Regional Medical Center
BayCare Alliant Hospital
Mease Countryside Hospital
Mease Dunedin Hospital
Morton Plant Hospital
Morton Plant North Bay Hospital
St. Anthony's Hospital
St. Joseph's Hospital
St. Joseph's Children's Hospital
St. Joseph's Women's Hospital
St. Joseph's Hospital-North
St. Joseph's Hospital-South
South Florida Baptist Hospital
Winter Haven Hospital
Winter Haven Women's Hospital

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surgeon referral, go to
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Notes

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