

## “Get Fit” for Surgery

### Benefits of a Comprehensive Enhanced Recovery After Surgery Program for Patients undergoing Total Joint Replacement Surgery at Beaumont Troy

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**PURPOSE:** The purpose of this project is to implement an Enhanced Recovery After Surgery (ERAS) Program at Beaumont Health System-Troy campus for patients undergoing elective total joint replacement surgery.

**INTRODUCTION:** Enhanced Recovery After Surgery (ERAS) is an innovative method of patient care management designed to accelerate patient recovery following surgery and decrease post-operative complications. ERAS uses a multi-disciplinary approach to surgical care designed to improve patient readiness, enhance patient recovery and increase patient satisfaction throughout the entire surgical experience by allowing the patient to actively participate in their own preparation and recovery periods. By utilizing a collection of ERAS evidence-based strategies, we can successfully contribute to our patient’s recovery without compromising their safety. Currently there is no standardized means of managing expectations of patients undergoing complex surgical procedures. Efforts in the past have failed due to overly complex and often contradictory educational efforts, and have led to patient confusion, dissatisfaction, and poor compliance. Using established standards for healthcare literacy as well as evidence based perioperative preparatory instructions, we seek to properly prepare our patients for total joint replacement surgery. We anticipate that this standardized and evidence based approach will improve satisfaction, reduce outcome variability, and shorten length of stay.

**METHOD:** To implement this program, a multidisciplinary team of experts was assembled to drive this project forward. Team members meet monthly and include: surgeons, anesthesiologists, nurse educator, quality nursing, floor nursing, pharmacy, librarian, CRNAs, administrative managers, and a project manager. Our comprehensive ERAS care pathway includes many of the established ERAS protocols including: nutrition optimization, strength and conditioning, appropriate use of pre-medication, goal directed fluid therapy, anesthetic optimization, multimodal analgesia, glycemic control, nausea and vomiting control, early feeding and bowel stimulation, early mobilization and conditioning, and education and expectation management.

Nearly one year after our first patient participated in the Enhanced Recovery After Surgery Clinical Care Program, we opened a cross-functional surgical patient preparation and optimization clinic called the STTAR (Surgical Testing and Teaching for an Accelerated Recovery) Clinic. The STTAR Clinic built on the fundamental principles of Enhanced Recovery while serving as a “one-stop-shop” for patients with an explicit goal to better prepare patients for surgery thereby improving patient satisfaction and engagement. Within the STTAR Clinic visit, patients receive their surgical history and physical, their pre-operative lab-work is drawn and analyzed, they receive comprehensive education about their surgery, they receive one on one education from a physical therapist, and a bag of supplies is distributed to help prepare for surgery. Total Joint Replacement patients attending the STTAR Clinic receive an incentive spirometer, interactive patient education booklet, a high carbohydrate drink to consume on the morning of surgery and a pedometer to encourage mobility and physical conditioning. Every total joint replacement patient that attends the STTAR Clinic is seen in a multi-specialty fashion by a Registered Nurse, Physician Assistant, and Physical Therapist. Additionally, patients receive consults from:

dietitians, social work, and anesthesia as clinically indicated. We also encourage all patients to bring a coach or companion with them to their Clinic visit and offer a tour of the hospital and inpatient unit at the conclusion of the appointment. This visit to the STTAR Clinic serves as a satisfier to the patient and to the surgeon. Patients leave the STTAR Clinic with clear expectations for their surgery and an understanding that the actions they take both before and after surgery can dramatically influence their own surgical outcomes.

**RESULTS:** In 2017, we expanded our ERAS program to include patients having both total hip and total knee replacement surgery. In the total joint population, we have seen a reduction in length of stay, a reduction in 30 day readmissions and a reduction in admissions to skilled nursing facilities. According to our post-operative survey results, patients strongly agree over 90% of the time that they feel satisfied with their pain control, feel prepared for surgery, were involved in decision making, feel confident in their ability to care for themselves and would recommend the STTAR clinic to friends and family needing surgery.

**FUTURE PLANS:** Based on the success of our ERAS program and due to overwhelming interest and demand from our surgeons and staff, we plan on expanding the STTAR Clinic and ERAS program to reach surgical patients from many other disciplines including spine surgery, thoracic surgery, and gynecology/oncology.