

OUR PROGRAM EXPERTS

Thomas E. Starzl Transplantation Institute



Abhinav Humar, MD

Chief, Division of Transplantation
Clinical Director, Thomas E. Starzl Transplantation Institute
Thomas E. Starzl Professor in Transplantation Surgery

Ron Shapiro, MD

Associate Clinical Director,
Thomas E. Starzl Transplantation Institute
Robert J. Corry Chair in Transplantation Surgery

UPMC Intestinal Rehabilitation and Transplantation Center (IRTC)

Surgeons



Guilherme Costa, MD, FACS
Surgical Director, Gastrointestinal Surgical Rehabilitation and Intestinal Transplantation

Hiroshi Sogawa, MD, FACS
Director, Transplant Fellowship Program

Gastroenterologists



Adam Slivka, MD, PhD
Associate Director, Liver and Pancreas Institute
Associate Chief for Clinical Affairs, Division of Gastroenterology, Hepatology, and Nutrition



David Binion, MD
Co-Director, Translational Research, UPMC IBD Center
Director, Nutrition Support Service

UPMC INTESTINAL REHABILITATION SERVICES



PROVIDING AN IMPROVED QUALITY OF LIFE WITH INTESTINAL REHABILITATION

The UPMC Intestinal Rehabilitation and Transplantation Center (IRTC) was formally developed in 1999, at which time UPMC already had a decade of experience in performing intestinal transplants. Our program has since distinguished itself as a worldwide leader, offering a range of transplantation and rehabilitative services

for patients diagnosed with intestinal failure. Our surgeons, gastroenterologists, internists, and dietitians are dedicated to treating each individual case with the most advanced treatments available, and recent data has proven successful outcomes with early referral in many cases.

(continued)



For more information about the UPMC Intestinal Rehabilitation and Transplantation Center (IRTC), including information about our services, publications, research, and free video CME presentations, visit the UPMC Physician Resources website at UPMCPhysicianResources.com/IRTC.

UPMC INTESTINAL REHABILITATION SERVICES

The multidisciplinary team at the IRTC offers several therapies for intestinal rehabilitation patients designed to reduce the need for or eliminate total parenteral nutrition (TPN) and create an improved quality of life.

At UPMC, we have helped patients by restoring continuity of the gastrointestinal tract in complex cases, particularly those with multiple enterocutaneous fistulae including Crohn's disease, irradiation enteritis, abdominal trauma, and patients with postbariatric surgery complications and other intestinal disorders. Our patients have experienced success with these therapies.

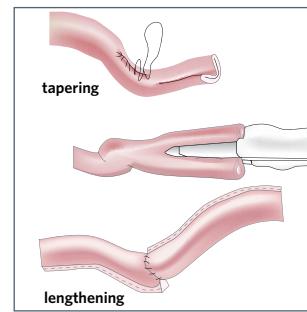
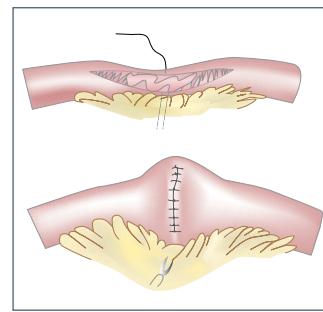
Gastrointestinal rehabilitation means restoration of nutritional autonomy with oral diet and elimination of the need for intravenous nutritional support. Intestinal rehabilitation can be accomplished through medical or surgical intervention, and nutritional counseling.

Medical and Surgical Treatment Options for Patients With Intestinal Failure

Our experts offer an array of medical and surgical options for patients with intestinal failure. New pharmacologic agents are available to help the intestine improve its function in combination with diet modification, surgical intervention, and novel therapies.

Various surgical techniques tailored to the patient's needs for management of short bowel syndrome without transplantation include:

- **Strictureplasty:** A surgical procedure performed in response to scar tissue that has built up in the intestinal wall from inflammatory bowel conditions.
- **Intestinal tapering and lengthening:** Procedures that both lengthen and taper the short bowel, thus making it more efficient at absorbing nutrients from food.
- **Reversed intestinal segment:** A procedure creating continuity of the small intestine by surgically removing a small section of the small intestine, rotating it, and reattaching it.
- **Serial transverse enteroplasty procedure (STEP):** A procedure in which the bowel is stapled into v-shapes on alternating sides, decreasing its width and increasing its length.



Strictureplasty

Intestinal tapering and lengthening

Nutrition Management

At the IRTC, our specialized dietitians collaborate with physicians and nurses to develop patient-specific nutritional plans for optimal outcomes. The dietitians assist with the management of TPN therapy and provide individualized diet counseling to patients at home, as well as in the hospital or at clinic appointments.

Whether the patient has surgical or medical intervention, nutritional counseling is an integral part of the treatment process. Patients go through a nutritional assessment to determine the appropriate needs and course of action. Some nutritional therapies may include:

- Optimization of total parenteral nutrition (TPN) for patients who have severe intestinal failure
- Enteral nutrition
- Diet modification
- Electrolyte and fluid management

Is Your Patient a Candidate for Intestinal Rehabilitation?

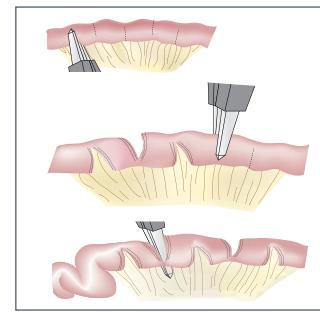
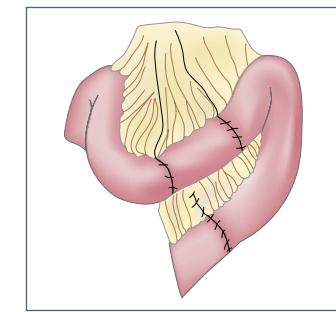
Candidates for intestinal rehabilitation include those patients with intestinal failure due to short bowel syndrome that may be caused by:

- End-stage Crohn's disease
- Abdominal visceral disorders
- Complex abdominal pathology
- Vascular occlusion
- Abdominal trauma
- Postbariatric surgery complications
- Other gut disorders

Our team of surgeons, gastroenterologists, dietitians, and other specialists will discuss the best treatment options with the referring physician and the patient. Recent data has proven successful outcomes with early referral in many cases.

Personalized Treatment

The proper management of each individual patient is tailored to the anatomy and function of the remaining bowel, the extent of damage to the liver, and any associated abdominal pathology. When appropriate, the bowel will be



Reversed intestinal segment

Serial transverse enteroplasty procedure (STEP)

rehabilitated with the aim to eliminate TPN therapy and need for transplantation. Transplantation may be an appropriate option for patients with irreversible intestinal failure and those with abdominal pathology that cannot be treated with any other conventional therapy.

Multidisciplinary Team Approach With a Common Goal

To ensure that each patient is carefully evaluated to determine their best course of treatment, we utilize a multidisciplinary team approach at the IRTC in collaboration with many ancillary services at UPMC. The team involves world-renowned gastrointestinal and transplant surgeons, gastroenterologists, dietitians, dedicated nurse coordinators, pharmacists, and other medical staff who provide medical and social support.

Our experts partner with the UPMC Digestive Disorders Center (DDC), a convenient point of access to the full range of digestive health care services available at UPMC. This comprehensive team offers treatment options for people with all forms of gastrointestinal disorders, including those who may not be eligible for intestinal transplant. The DDC comprises eight cooperative, specialized programs tailored to the needs of people with different types of digestive disease, and to the exploration of better digestive disease care. Digestive experts develop individual treatments to restore quality of life. Our researchers actively look for new and better ways to diagnose, treat, and understand digestive disorders.

Referring Your Patient

To refer a patient to the UPMC Intestinal Rehabilitation and Transplantation Center:

1. Have ready the following information:
 - Demographic information (name, date of birth, address, phone number, emergency contacts)
 - Original diagnosis, including prior history of medical care and previous medical tests performed (radiologic and pathology reports, inpatient/outpatient records, lab reports, reports of previous transplant evaluations)
 - Insurance information
2. Call **1-800-544-2500** to speak with a clinician, or email transplant@upmc.edu.
3. Mail, fax, or email all related information and medical records regarding your case to the office.

Collaborative, Quality Care

Our integrated approach to diagnosing and treating gastrointestinal diseases means high-quality, coordinated care for your patients.

Our experts coordinate all aspects of the patient's testing and treatment and communicate with the referring physician, providing a seamless continuum of care. They can make direct referrals to UPMC for patients who have a severe or complicated digestive disease and require a more specialized team of health care experts.

Partnering for Life

We take pride in keeping the line of communication open with patients, families, and referring physicians regarding status, procedures, treatments, and follow-up care. Although some rehabilitation treatments involve complex, surgical procedures, we maintain a patient-focused approach that takes into consideration the stress and concerns many individuals experience throughout the evaluation, treatment, and recovery period.

UPMC's surgeons and physicians are available to consult 24 hours a day, seven days a week. Throughout the treatment process, a member of our team will continually update the referring physician about the patient's progress.

4. After receipt of medical records and financial clearance, the initial evaluation for your patient will be scheduled.

For more information about referring a patient, visit UPMC.com/IRTC.

Contact

Thomas E. Starzl Transplantation Institute
UPMC Montefiore, 7 South
3459 Fifth Ave.
Pittsburgh, PA 15213
Attn: UPMC Intestinal Rehabilitation and Transplantation Center

Telephone: **412-647-5800 or 1-877-640-6746**
UPMC's 24-hour physician referral service:
1-800-544-2500
Fax: **412-647-0362**
Email: transplant@upmc.edu

UPMC's transplant programs are among the world's largest and are internationally renowned for their influence on the field of transplantation. For more than 30 years, UPMC has been providing care to adult and pediatric transplant patients through services at the Thomas E. Starzl Transplantation Institute, the UPMC Department of Cardiothoracic Surgery, and the Children's Hillman Center for Pediatric Transplantation. To date, UPMC has performed more than 17,500 transplants, including heart, lung, intestinal, kidney, liver, pancreas, and multiple-organ transplants, along with heart assist device implantation. UPMC also partners with the University of Pittsburgh to advance basic science and clinically applied research, as well as to support the teaching and training of transplant specialists worldwide.