Performing Minimally Invasive Surgery

The Department of Surgery is dedicated to providing the most sophisticated care using the latest minimally invasive procedures that offer eligible patients considerable benefits when compared with conventional “open” surgery. These benefits generally include smaller incisions and scars, less pain, faster recovery, and earlier returns to work and normal activity/diet.

Most of the minimally invasive procedures that our surgeons perform involve the use of an endoscope (endo-, within scope, to see) that enables them to see inside a body cavity or organ. The scope, which is combined with a video camera and fiberoptic light source, magnifies the body’s internal structures and projects the image onto a video monitor in the operating room.

The surgeons then perform operations with newly developed surgical instruments and methods that cause the least amount of surgical trauma to patients.

Different kinds of endoscopes are designed for different parts of the body. For example, the laparoscope is for the abdomen and the thoracoscope the chest. The laparoscope was the first endoscope to become “videoscopic” when combined with a video camera for use in cholecystectomy (gallbladder removal) during the 1980s. That advance began to expand quickly into other kinds of operations, and continues to grow.
Performing Minimally Invasive Surgery
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That endoscopic surgery requires only small incisions—and thus is minimally invasive—is a distinguishing feature of this revolutionary approach to surgical care.

Without the trauma of the large incision used in conventional operations, both pain and healing time are greatly reduced. There are also smaller scars as a consequence of the smaller incisions. Cosmetic results are therefore much better, too.

Other appealing benefits include shorter hospital stays or no hospital stays at all, less need for postoperative pain medication, and earlier returns to normal activity/diet.

Surgery to treat a variety of common abdominal problems such as gallbladder disease, hernias, appendicitis, and chronic heartburn caused by reflux disease used to require large incisions, about a week in the hospital, and a six- to eight-week recovery time.

In most cases, laparoscopic surgery has reduced treatment to same-day outpatient surgery with just one- to two-week recovery at home; some patients can return to work in just a couple days after their operation.

Many of the minimally invasive procedures performed by our surgeons are done at University Hospital’s state-of-the-art Ambulatory Surgery Center, located next to the hospital.

Minimally Invasive “Videoscopic” Surgery And Other Minimally Traumatic Approaches

GENERAL/GASTROINTESTINAL SURGERY service uses the laparoscopic approach, including advanced techniques, to treat a wide range of gastrointestinal disease and disorders.

CARDIOTHORACIC SURGERY service uses thoroscopic procedures to treat coronary artery disease and pulmonary disease.

SURGICAL ONCOLOGY service uses the laparoscopic approach to treat different kinds of cancers.

OTOLARYNGOLOGY-HEAD AND NECK SURGERY service uses endoscopic procedures to treat diseases of the ear, nose, and throat, as well as the head and neck, including endocrine problems.

PLASTIC AND RECONSTRUCTIVE SURGERY service uses endoscopic techniques for cosmetic procedures.

PEDIATRIC SURGERY service uses laparoscopic and thoroscopic procedures to treat maladies in both infants and older children.

Other forms of minimally traumatic surgery—such as off-pump coronary artery bypass surgery, endovascular surgery, breast conservation lumpectomy, parathyroidectomy, and coblation tonsillectomy/adenoectomy—are performed by the Department’s specialists as well.

Laparoscopic Surgery: A Short History of 1,000 Years

Minimally invasive laparoscopic surgery comprises procedures that involve small incisions into the region of the abdomen that is being operated on. In almost all cases a light source is utilized to inspect an internal organ, such as that done by Abulkasim around the year 1000 to evaluate the cervix. Subsequent investigators developed instruments to examine the nares and urinary bladder.

Celioscopy was used by Kelling in 1901 to evaluate the peritoneal cavity of the dog, and Jacobaeus used this technique in 1910 in humans. The advantage of pneumoperitoneum was recognized 30 years later, and in 1986 a computer chip TV camera attached to the laparoscope was used, leading to video-guided surgery.

Gynecology popularized the use of laparoscopy for pelvic surgery, and general surgeons began to perform laparoscopy for liver biopsies under direct vision.

Given the prevalence of gallbladder disease, it was only natural for the first laparoscopic procedure to be a cholecystectomy performed by McKernan and Saye in 1988, with Reddick and Olsen perfecting laparoscopic cholangiography shortly thereafter.

Coincident with this advance, Schreiber performed the first laparoscopic appendectomy in 1987 for acute appendicitis, though laparoscopic appendectomies had been performed ten years earlier. Shortly thereafter, laparoscopic herniorrhaphy followed. Coupled with this has been the utilization of the laparoscope for adhesiolysis.

Our Center for Minimally Invasive Surgery, established in 2000, is dedicated to the performance and advancement of the most sophisticated care using minimally invasive laparoscopic operations.
Basic and Advanced Laparoscopic Surgery

Our use of minimally invasive surgery dates back to the late 1980s when general surgeons first began to perform laparoscopic procedures for common abdominal problems, namely, gallbladder disease, appendicitis, and hernias. Since then, our program has grown to become the most sophisticated laparoscopic program of its kind in Suffolk County.

Our surgeons are specially trained in both basic and advanced laparoscopic techniques, and have extensive experience in performing this minimally invasive surgery on the esophagus, stomach, small intestine, colon, gallbladder, adrenal glands, and spleen.

Unique to Suffolk County are the laparoscopic procedures performed on the pancreas and liver by our surgeons.

The equipment our surgeons use has the latest in optic, fiberoptic, and digital technology, and they are currently testing new video cameras and flat-screen monitors, as well. This state-of-the-art equipment further distinguishes our minimally invasive surgery program.

“We were the first in Suffolk County to perform several of the advanced laparoscopic procedures, and for some we are the only surgeons in the county who currently perform them,” says John S. Brebbia, MD, assistant professor of surgery and director of our Center for Minimally Invasive Surgery.

Laparoscopic cholecystectomy (gallbladder removal), now considered a basic procedure, was the first procedure to establish itself, in view of the prevalence of gallbladder disease in the United States. This new approach changed the practice and expectations of general surgery, as it captured the attention of the surgical profession and the public, and spawned the tremendous growth in minimally invasive surgery.

We currently perform hundreds of laparoscopic cholecystectomies at University Hospital every year, even as same-day procedures at our Ambulatory Surgery Center (see page 1), where laparoscopic hernia repairs are often done as same-day procedures.

**TREATING PATIENTS**

Using laparoscopic techniques, our surgeons are able to treat patients with a wide variety of diseases, such as gallstones and bile duct stones, reflux disease, perforated ulcers, hernias of all types including paraesophageal hernias, blood dyscrasias (sickle cell disease, hereditary spherocytosis, idiopathic thrombocytopenic purpura), Crohn’s disease, diverticulitis, pancreatitis, and pseudocysts, as well as several different types of cancers.

Our laparoscopic expertise and experience, together with our first-class support services, such as our surgical intensive care unit, allow us to perform minimally invasive procedures on patients who have been deemed inoperable, too old, or too risky at other hospitals.

For abdominal surgery in children, most of the laparoscopic techniques have also been adopted, and our pediatric surgeons use them to provide the same services we do for adults (see page 4).

Using the multidisciplinary resources of University Hospital that is a tertiary care center, we have been able to combine our laparoscopic skills with minimally invasive techniques used by interventional radiologists and vascular surgeons to perform various procedures that cannot be done using laparoscopy alone, such as removal of large spleens.

Our surgeons have extensive experience in performing laparoscopic inguinal hernia repairs, and treat many patients with recurrent inguinal hernias, which are usually repaired laparoscopically at the Ambulatory Surgery Center.

Many patients with hernias who come to Stony Brook request minimally invasive surgery because of the benefits associated with the laparoscopic approach, namely, less pain and faster recovery, compared with traditional surgery. Moreover, our high success rate is another compelling and attractive factor in their decision-making process.

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**Laparoscopic Procedures Performed at Stony Brook**

**Basic**

— Cholecystectomy
— Appendectomy
— Inguinal and ventral hernias
— Diagnostic laparoscopy

**Advanced**

— Splenectomy
— Adrenalectomy
— Heller myotomy (achalasia)
— Nissen and other fundoplications (reflux disease)
— Paraesophageal hernia repair
— Common bile duct exploration
— Perforated ulcer repair
— Liver surgery
— Pancreatic surgery
— Ultrasound
— Small bowel resection
— Colon resection
— Cancer staging and tumor excision
— Feeding tube placement
— Peritoneal dialysis catheter placement
— Trauma surgery
— Laparoscopy as an adjunct to endovascular surgery
— Surgery for patients with history of previous abdominal surgery
Endoscopic Pediatric Surgery

Minimal invasive procedures in pediatric surgery involve the use of endoscopic techniques for surgery in the abdomen and chest. This approach is in addition to the standard small incisions that are appropriate for infants and children.

O ur pediatric surgeons now usually perform routine appendectomies laparoscopically. Diagnostic laparoscopy is frequently used at the beginning of an abdominal procedure when the diagnosis is not clear.

The laparoscopic operations currently performed at Stony Brook include a wide array of abdominal procedures that were formerly done with an open abdomen.

“Our pediatric surgical attendings are pleased to discuss the minimally invasive procedures done at Stony Brook that include decreased postoperative pain and shortened hospital stays in contrast to classical open procedures,” says Cedric J. Priebe, Jr., MD, professor of surgery and chief of pediatric surgery.

These laparoscopic operations include fundoplication for gastroesophageal reflux, cardioesophagomyotomy for achalasia, cholecystectomy and operative cholangiogram, Ladd procedure for intestinal malrotation, some diaphragmatic hernia repairs, localized liver cyst excision and biopsies, ovarian transpositions for radiation therapy protection, peritoneal dialysis catheter repositioning, and splenectomy for moderate-sized spleens.

Laparoscopic assistance for mobilizing the colon and small intestine allows a small incision for removal of an abnormality or performance of a Hirschsprung’s pull-through procedure.

In the chest, thorascopic lung wedge resection and biopsies, pleural drainage and lung decortication for empyema, and bleb excision and lung wedge resection are performed in community hospitals.

In the abdomen, thorascopic procedures include diagnostic and therapeutic percutaneous biopsy, pleural drainage, pleurodesis, lung wedge resection and lobectomy, as well as video-assisted thorascopic surgery for resection of small and large mediastinal cysts and anterior spine excision for scoliosis surgery.

Appendix, gallbladder, or spleen removal | Anti-reflux surgery | Colon and small bowel surgery | Testicle fixation | Abdominal biopsy | Empyema removal in chest | Lung biopsy | Funnel chest repair | Foreign body removal from digestive tract and airway | Plus other operations

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Operations that cause less surgical trauma | Both pain and healing time are reduced | Smaller scars because of tiny incisions | Shorter hospital stays or no hospital stays at all | Less need for postoperative pain medication | Earlier return to normal activity and diet

For consultations/appointments with our pediatric specialists, please call (631) 444-4545.

Some Recent Publications*


* The names of faculty authors appear in boldface.
Laparoscopic Surgery In Oncology

The use of minimally invasive laparoscopic surgery in oncology is rapidly expanding, as laparoscopy continues to play a major role in the staging and diagnosis of intra-abdominal tumors.

The Clinical Outcomes of Surgical Therapy (COST) trial, which compared laparoscopically assisted colectomy with open colectomy for colon cancer, demonstrated the safety of laparoscopy in colorectal cancer when performed by experienced laparoscopic surgeons.

The potential benefits of laparoscopic surgery are being provided with greater frequency to other patients who have gastrointestinal malignancies. Selected tumors of the stomach, pancreas, and liver can now be treated safely without the need for large painful incisions.

“In the future, laparoscopy will be used with even greater frequency as a means to deliver novel therapies into the area of the abdomen that cannot be reached by image-directed methods,” says Martin S. Karpeh, Jr., MD, professor of surgery and chief of surgical oncology.

As an adjunct to laparoscopy, radiofrequency ablation (RFA) is a technique that delivers high-frequency alternating current that results in temperatures capable of completely destroying tumor tissue within the treatment area of interest.

RFA probes can be introduced into the abdomen laparoscopically as primary treatment for tumors in the liver that cannot be resected by traditional surgical methods. RFA is also now used in treating lung cancer (see page 9).

At Stony Brook, our use of the latest minimally invasive approaches further demonstrates our commitment to excellence in the surgical care of patients with cancer.

A Comparison Of Laparoscopically Assisted And Open Colectomy For Colon Cancer

Clinical Outcomes of Surgical Therapy Study Group

Minimally invasive, laparoscopically assisted surgery was first considered in 1990 for patients undergoing colectomy for cancer. Concern that this approach would compromise survival by failing to achieve a proper oncologic resection or adequate staging or by altering patterns of recurrence (based on frequent reports of tumor recurrences within surgical wounds) prompted a controlled trial evaluation. . . . In this multi-institutional study, the rates of recurrent cancer were similar after laparoscopically assisted colectomy and open colectomy, suggesting that the laparoscopic approach is an acceptable alternative to open surgery for colon cancer.


Ambulatory Surgery Center
continued from Page 1

The Center has six operating rooms and two minor procedure rooms—all with the latest equipment and monitors.

Consistent with the latest concepts in ambulatory surgery, the recovery area is divided into two stages. The first-stage room is a conventional recovery area and set up for those patients requiring more frequent observation.

Many patients go directly to a second-stage room where they can be fed, enjoy their families, and relax before going home—thanks to new short-acting anesthetics, combined with minimally invasive surgical techniques, that are allowing more and more patients to bypass the conventional recovery process with minimal, if any, pain or nausea.

The Center’s planners paid particular attention to the needs of children and their families. There are pediatric play areas with specially designed furniture for children, as part of our effort to make their experience as pleasant as possible.

Easy accessibility for both patients and surgeons is a high priority of the Center. Parking is easy, plentiful, and free of charge.

The Ambulatory Surgery Center is fully accredited by the Joint Commission on Accreditation of Healthcare Organizations, and is dedicated to providing efficient, high-quality surgical services in a professional, friendly environment. It is a multi-specialty center developed under the strict guidelines required for Medicare certification and with an ongoing quality assurance program.

Standards of care and practice from several professional organizations (Association of Operating Room Nurses, American Society of Anesthesiology, and the Association of Perioperative Nurses) have been used to assist in the creation of a process to separate the surgical inpatient from the outpatient.
Minimally Invasive Cardiothoracic Surgery

Minimally invasive efforts in cardiac surgery translate to performing cardiac procedures either without the use of cardiopulmonary bypass (heart-lung machine) or with the avoidance of midline sternotomy, the standard approach to the heart. These approaches seek to remove the hallmarks of what was considered an “open heart case.” Minimally invasive efforts in cardiac surgery at Stony Brook are advancing on a number of fronts:

Since 1997, an aggressive off-pump program—avoiding the use of the heart-lung machine—has been developed at Stony Brook, including multi-vessel OPCAB (off-pump coronary artery bypass; through sternotomy) and MIDCAB (minimally invasive direct coronary artery bypass; without sternotomy).

Well over 2,000 of these off-pump procedures have been performed at University Hospital, and they constitute approximately 50% of the coronary artery bypass grafting (CABG) surgery done here. We have served as a national preceptor training site for teaching these techniques. We have reported on reduced blood utilization, shortened intubation times, and decreased ICU days with the off-pump approach compared to prior experiences with conventional on-pump surgery.

Off-pump, multi-vessel CABG through thoracotomy and thoracoscopic harvesting of the internal mammary artery, providing for even less chest wall trauma, are additional forthcoming advances in our minimally invasive armamentarium. The pending acquisition of a surgical robot at University Hospital will further refine these minimal access thoracotomy techniques of off-pump surgery.

As an appropriate complement to our off-pump CABG program, we are now participating in the national RESTOR-MV study. The Coapsys device, a myocardial splint that reduces or eliminates mitral regurgitation, is applied to patients with ischemic mitral regurgitation in addition to off-pump CABG.

Until recently, cardiopulmonary bypass has been an absolute requirement for valvular surgery. The off-pump technique is particularly compelling for this high-risk group of heart surgery patients who are enjoying spectacular results in the early pilot studies.

We also plan to extend our efforts in minimally invasive valve surgery to facilitate mitral and aortic valve surgery via small thoracotomy (incisions between the ribs).

Over the past four years, our physician’s assistants have also mastered endoscopic vein harvesting, which substitutes a 1-inch incision for the traditional 24-plus-inch incision in the leg of CABG patients. Nearly all our CABG patients typically have their vein harvested by this technique, and thereby benefit from significant reduction in post-op pain and complication rate.

Finally, in conjunction with the vascular surgery service, aortic stenting has been performed by our thoracic surgeons to treat thoracic aneurysms and traumatic aortic disruptions, a common cause of death in automobile accidents. The stents used are large scale and are deployed as a percutaneous device or as part of a surgical procedure. Application to aortic dissection will soon follow.

All told, these minimally invasive approaches represent a significant advance in our efforts to reduce the risk and morbidity of cardiothoracic surgery.

For consultations/appointments with our cardiothoracic surgeons, please call (631) 444-1820.

THORACIC SURGERY

Endoscopic thoracic procedures are not new, but the application to major pulmonary resections has become more and more frequent at Stony Brook. Several 1-inch port incisions are substituted for the posterolateral thoracotomy incision that is known as “the most painful incision in all of surgery.” Over 32 lobectomies have also been done this way in the last year. Creative endoscopic techniques have been devised by our thoracic surgeons to treat pericardial disease in a minimal access fashion.

For more information about the RESTOR-MV trial at Stony Brook, please call (631) 444-1820.
Performing Carotid Stenting For Stroke Prevention

Minimally Invasive Procedure Is Promising New Option

Stroke is the most common cause of death and the number one cause of disability in adults in the United States. The American Heart Association estimates that 20% to 30% of strokes are caused by particles of atherosclerotic plaque, which travel upstream into the vessels—the pair of carotid arteries in the neck—that supply the brain. Approximately 730,000 strokes are reported each year in the United States, and approximately 150,000 of these events result in death.

Atherosclerotic plaque buildup in the carotid arteries of the neck can prevent blood from reaching parts of the brain, causing oxygen shortages that can cause transient ischemic attacks or stroke.

A stent is a thin metal-mesh tube that can be placed inside an artery to keep the artery open and allow blood to flow past plaque blockages.

Carotid stenting is a new treatment that provides an effective means of re-establishing blood flow through blocked carotid arteries.

Stenting of the carotid artery is a minimally invasive procedure.

Many of these life-threatening strokes can be prevented. For patients with blocked carotid arteries, carotid endarterectomy (removal of plaque) has long been the standard surgical treatment. However, although carotid endarterectomy is well established, the need for therapeutic options is important for certain patients who are not good surgical candidates for it.

At Stony Brook, in addition to carotid endarterectomy, our vascular surgeons are now performing carotid stenting that offers a promising new treatment option. The “endovascular” (within the vessel) operation is minimally invasive, and in selected patients it has the potential to be performed as a same-day procedure.

Our multidisciplinary team includes vascular surgeons, cardiologists, neurologists, and neuroradiologists who evaluate each patient and discuss each potential case for stenting. This team approach helps to ensure and distinguish the quality of care that patients receive at the University Vascular Center at Stony Brook.

As we age, our arteries narrow. They lose their flexibility and the linings thicken. This process is called atherosclerosis or “hardening of the arteries.” When the carotid arteries in the neck begin to narrow, blood clots may develop. These arteries may become completely blocked or a piece of clot may break off and travel to the brain. In both cases a stroke—also known as “brain attack”—may result. Transient ischemic attacks (“mini-strokes”) may happen first.
Performing Carotid Stenting For Stroke Prevention
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Risk of stroke increases as the carotid arteries become more and more narrow. The risk is particularly high after the arteries are blocked more than 70%. The amount of blockage may be determined by a simple painless test called a carotid doppler or carotid ultrasound.

People at greatest risk for carotid artery narrowing are those over age 65 (particularly smokers) and those who already have poor circulation in the legs or their heart. Patients who have temporary loss of vision or speech and/or weakening of an arm or leg may have had a mini-stroke and should see their doctor.

CAROTID STENTING
Carotid stenting is an endovascular procedure in which a tiny, slender metal-mesh tube (stent) is fitted inside a carotid artery to increase the flow of blood blocked by plaques. The stent is inserted in the carotid artery across the blockage and a balloon is threaded up to the blocked artery, and then inflated so that it presses against the plaque, flattening it and re-opening the artery.

This is all done through a puncture in the groin. The stent acts like a scaffold to prevent the artery from collapsing or being closed by plaque after the procedure is completed.

Stenting is recommended for patients who are unable to undergo carotid endarterectomy, which is the standard treatment for severe buildup of plaque in the carotid artery, and which is the most common vascular surgery performed in the United States today. But for some patients, such as those who cannot tolerate the side effects of anesthesia, it may not be appropriate.

Carotid stenting, though generally safe and less invasive than endarterectomy, offers a promising alternative. It is currently being refined as a procedure, in terms of both technique and the stents themselves.

The first randomized controlled trial comparing surgery to carotid angioplasty and stenting was reported at the American Heart Association in 2002, and showed significant benefits of stenting over surgery in reducing adverse events at one month in “high risk” patients. Subsequent studies have confirmed its effectiveness and safety.

FDA APPROVAL
In 2004, the FDA approved the Guidant stent and protection device for use in treating carotid artery blockages. The device is approved for use in patients who are at “high risk” for carotid endarterectomy, and who have had lateralizing cerebrovascular symptoms and a stenosis of at least 50% by angiography or duplex ultrasound.

The FDA also approved this device for asymptomatic patients whose carotid artery is at least 80% stenotic by angiogram or duplex ultrasound, and who are also “high-risk” candidates for carotid endarterectomy.

For consultations/appointments with our vascular surgeons, please call (631) 444-2565.

Free Screening For Stroke Risk Factors

The University Vascular Center at Stony Brook provides free-of-charge screenings—the next to be held in June—for carotid (neck) artery disease and stroke risk factors. The screening involves a non-invasive, 15-minute ultrasound test to detect build-up of plaque in the carotid arteries.

“This test allows us to determine if an individual is at risk because of a plaque build-up and then to treat that individual to reduce the risk factor,” says John J. Ricotta, MD, professor and chairman of surgery and chief of vascular surgery.

For more information, please call (631) 444-1717.
Non-Surgical Lung Cancer Treatment

Thomas V. Bilfinger, MD, ScD, professor of surgery and director of thoracic surgery, last year initiated a clinical program in radiofrequency ablation (RFA) of lung cancer—the only program of its kind in Suffolk County.

A promising new treatment option for lung cancer, RFA applies thermal energy with a catheter delivery system, resulting in coagulation necrosis. Dr. Bilfinger uses it to treat small tumors (<4 cm) originating in the lung (primary lung cancer) and those that have spread to the lung (metastases).

RFA is usually considered for patients who are not surgical candidates or who desire a non-surgical option. It can be used in conjunction with chemotherapy and/or radiation therapy. RFA can treat the tumor and still preserve lung function. In certain cases the entire tumor can be ablated, potentially leaving the patient free of visible disease.

RFA has been used to treat liver cancer and other diseases, but its use in treating lung cancer is new. For patients with lung cancer who meet the clinical criteria, RFA may help to slow disease progression, minimize trauma to lungs and surrounding tissue, and reduce length of stay in the hospital.

Dr. Bilfinger, who directs University Hospital’s Lung Cancer Evaluation Center, has had advanced training in the use of RFA in lung cancer.

He stresses that RFA is not intended to replace surgery or chemotherapy for lung cancer, but is a treatment option. He expects that Stony Brook will participate in a national clinical trial to assess the long-term results of RFA for lung cancer.

“This technology is promising, yet evolving,” says Dr. Bilfinger. “It will be several years before we know the full implications of RFA for treating lung cancer.”

For consultations/appointments with Dr. Bilfinger, please call (631) 444-1820.

Our breast surgeons at the Carol M. Baldwin Breast Care Center are certified to provide a targeted “internal” radiation therapy called partial breast irradiation (PBI) to patients with early-stage breast cancer who choose to have lumpectomies. The new FDA-approved PBI system delivers high-dose radiation directly to the site where a tumor has been removed, targeting the area where the cancer would most likely recur.

PBI represents the next generation of internal radiation therapy. It is minimally invasive, has been shown to be safe, and can be performed as an outpatient procedure. Patients generally tolerate the treatment very well.

The typical breast cancer recurrence rate after the traditional therapy using external beam radiation for six weeks is 15% over 20 years. The recurrence rate in the breast after PBI treatment is unknown. Short-term results are encouraging, though long-term results are still unknown.

With the PBI system used by our breast care specialists, a thin flexible catheter with a balloon on the end is placed into the cavity created by the lumpectomy. The balloon is inflated with saline solution, and then a radioactive “seed” that is attached to a thin wire is threaded through the catheter into the balloon, where it

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Minimally Invasive Approaches To Parathyroid and Thyroid Surgery

Hyperparathyroidism is a condition causing high blood-calcium levels that afflicts about 100,000 Americans each year. It is caused by the overproduction of parathyroid hormone (PTH) by one or more of the four parathyroid glands located in the neck. This chronic condition may result in kidney stones, osteoporosis, abdominal problems, fatigue, and depression, among other illnesses. It can successfully be treated by removing the abnormal parathyroid gland(s).

Surgery to remove abnormal parathyroid glands (parathyroidectomy) is indicated for moderate to severe symptoms of hyperparathyroidism. In cases where the problem is an adenoma (benign tumor), just the one gland will be removed. If all four glands are enlarged (hyperplasia), the surgeon will likely remove most (three and a half) or all of them.

Traditionally, parathyroid surgery has involved a long incision, exploration on both sides of the neck, and general anesthesia. Four parathyroid glands were identified through a bilateral neck exploration, and an enlarged parathyroid gland was excised. The patient experienced cure with marked resolution of his symptoms and signs of hyperparathyroidism.

The results in large series with this procedure demonstrate cure rates that exceed 95%, with complication rates in the range of 1% to 2%.

**MINIMALLY INVASIVE PARATHYROIDECTOMY**

A new technique—known in the medical literature as minimally invasive parathyroidectomy (MIP)—offers a safer and less invasive approach. It can be performed in the ambulatory surgery setting, under local anesthesia, through a small incision with minimal risk to the patient.

Preoperatively, a radioisotope “sestamibi” scan is used to help locate a tumor or abnormal parathyroid gland prior to surgery. The radioactive isotope is absorbed only by the overactive parathyroid gland(s)—not healthy ones—and therefore helps determine where the abnormal gland is.

During the operation, the surgeon uses the sestamibi scan results and/or ultrasound as a map to pinpoint the location of the abnormal gland. In some cases, a miniature handheld probe that detects radioactivity, much as a Geiger counter does, is used to confirm the location.

Since 85% to 90% of patients with hyperparathyroidism have a single parathyroid adenoma and its removal generally results in cure, our new ability to determine—before surgery—the location of the abnormal gland makes a directed operation the most logical approach to treatment.

The entire MIP operation can usually be performed through a small (about 1-inch) incision in the neck. It generally takes less than an hour and usually can be performed under local anesthesia, the use of which avoids a general anesthetic and enables the patient to go home a few hours after surgery.

Once the abnormal parathyroid gland has been removed, a blood sample is drawn from the patient and sent for rapid assay of PTH. Stony Brook’s special laboratory services can provide the results within half an hour. A drop in the level of the hormone to normal or near-normal range helps the surgeon be confident that the operation is complete—that is, whether or not another “normal” gland will need to be removed.

It is generally not necessary to perform more extensive exploration to find any other parathyroid glands, and this avoidance of further exploration minimizes the risk of surgical complications.

The newly developed minimally invasive approach to parathyroid surgery is well tolerated by patients, and is associated with cure rates that are at least as good as those attained through traditional bilateral neck exploration. Moreover, the complication rate is less than 1%.

**MINIMALLY INVASIVE THYROIDECTOMY**

Thyroid nodules and goiters are common problems seen today. Many of these can harbor cancers within them. Thyroid nodules and enlarged thyroid glands require proper evaluation and treatment. When detected, they are usually referred for further work-up to an endocrinologist or a head and neck surgeon with endocrine expertise.

Following a thorough work-up, the patient may need to undergo thyroidectomy (removal of part or all of the thyroid gland) for several reasons: removal of thyroid cancer; removal of part of the thyroid gland for definitive diagnosis; treatment of a hyperactive thyroid gland; or treatment of an enlarged thyroid gland that is causing breathing or swallowing difficulties.

Since thyroid cancers are highly curable, it is extremely important for the patient to
undergo proper treatment and close follow-up. The initial treatment for most thyroid cancers is removal of the thyroid gland, and sometimes removal of lymph nodes, which may contain metastatic cancer.

The procedure can be accomplished with a low risk of complications and a short, overnight hospital stay. Depending on the type of cancer, some patients may require treatment with radioactive iodine after surgery.

Maisie L. Shindo, MD, associate professor of surgery (otolaryngology-head and neck surgery) and director of head and neck oncology, now performs minimally invasive thyroid surgery in selected patients. This new approach to thyroidectomy offers these patients attractive benefits, including less postoperative pain and a smaller scar, thus better cosmetic results.

Traditionally, thyroidectomy is performed through an incision that is about 3-3½ inches in the lower neck.

Minimally invasive video-assisted thyroidectomy (MIVAT) is a new approach. With this technique, thyroidectomy is performed through a much smaller incision, usually 1-2 inches.

MIVAT is an adaptation of the established laparoscopic procedures in which similar instrumentation, such as a long narrow telescope attached to a video-camera system, is used to enhance visualization, and special long narrow instruments that grab, cauterize, and cut tissues facilitate dissection through a small incision.

Studies have shown that MIVAT can be safely performed with minimal complication rates, no different from those of conventional thyroidectomy. MIVAT is not appropriate for everyone, and careful patient selection is very important for successful outcome.

For consultations/appointments with our head and neck specialists, please call (631) 444-4121.
Division Briefs

Cardiothoracic Surgery
Dr. Thomas V. Bilfinger, professor of surgery and director of thoracic surgery, is the principal investigator in the approved RESTOR-MV trial evaluating a new surgical treatment for off-pump repair of the mitral valve (see page 6).

In addition to successfully using radiofrequency ablation (RFA) to treat lung cancer (see page 9), Dr. Bilfinger is now also using minimally invasive cryotherapy for small, inoperable lung cancer tumors and lung metastasis from cancers outside the chest. A new approach to treating lung cancer, cryotherapy is a technique that kills cancer cells by freezing them with sub-zero temperatures.

During the cryotherapy procedure, hollow steel probes are placed inside and surrounding the cancer. Liquid nitrogen is then circulated through the probes, freezing the cancer cells and creating a ball of ice that surrounds the cancer. Once an adequate ice ball is formed, heated nitrogen is circulated through the probes. This process is then repeated to destroy the cancer.

Like RFA, cryotherapy is a promising new option particularly for patients who cannot tolerate surgery. Neither treatment, however, replaces traditional resectional therapy which remains the gold standard for lung cancer.

Dr. Bilfinger’s recent honors include inclusion in the latest Guide to America’s Top Surgeons, published this year by the Consumers’ Research Council of America. In addition, he was again selected for inclusion in the Castle Connolly Guide, Top Doctors: New York Metro Area, published last December. This selection is based on screening by a physician-directed research team that identifies the top 10% of physicians in the entire New York Metropolitan area.

Dr. Bilfinger made the following presentation at the Geriatric Oncology Consortium’s 3rd annual multidisciplinary advancing cancer care in the elderly conference, held last September in Washington, DC, that focused on emerging strategies in lung cancer:

Multi-interventional plan to minimize operative risk in elderly lung cancer patients.

He is a co-investigator of the following oncology study:


A recent successful audit by the National Cancer Institute has resulted in reapproval for four years of Dr. Bilfinger’s participation in the lung cancer program of the American College of Surgeons Oncology Group (ACOSOG). In 1999, the Division of Cardiothoracic Surgery originally joined it in order to participate in multi-center clinical trials of thoracic surgery for the treatment of lung cancer and other cancers in the chest. Our participation will continue to provide patients with the only available access to these trials in Suffolk County.

Dr. Todd K. Rosengart, professor of surgery and chief of cardiothoracic surgery, joined our faculty in January. He comes to Stony Brook from Northwestern University’s School of Medicine in Chicago, where he was professor of surgery and chief of cardiothoracic surgery at its affiliated hospitals of Evanston Northwestern Healthcare.

Dr. Rosengart has special expertise in treating high-risk and complex adult heart disease. He has performed pioneering work applying novel strategies, including thoracoscopic “hybrid” bypass that avoids sternotomies, “bloodless” surgery for patients wishing to avoid transfusions, and “biologic bypass” using gene therapy to stimulate the growth of new blood vessels in patients with end-stage coronary disease.

Development of a Pump-Oxygenator to Replace the Heart and Lungs

An Apparatus Applicable To Human Patients And Application To One Case

Clarence Dennis, MD
et al.

1. A pump-oxygenator apparatus is described which appears superior to any we have studied in terms of high oxygenating and pumping capacity and low trauma to blood constituents.

2. This apparatus has behaved admirably in one human trial, although extraneous factors led to the loss of the patient.

3. This apparatus appears to have a place in further development of the surgery of cardiac abnormalities.

Annals of Surgery

Clarence Dennis, MD
1909-2005

A pioneer in heart surgery who performed the world’s first open heart surgery using a heart-lung machine which he helped to develop and a founding member of our faculty.

1974-1988
team that identifies the top 10% of physicians in the entire New York Metropolitan area.

In addition, Dr. Shapiro has recently become an honorary police surgeon of the New York Police Department.

Dr. Kevin T. Watkins, assistant professor of surgery, is an active laparoscopic surgeon and co-author of a paper on minimally invasive laparoscopic hepatic resection, published in March in the Journal of Gastrointestinal Surgery (2006;10:422-7), with the following conclusion: “With appropriate patient selection, laparoscopic hepatic resections may be safely performed, result in short hospital stays, and are facilitated by technologies such as saline-enhanced electrocautery and endoscopic ultrasound.”

Dr. Kevin T. Watkins

Otolaryngology-Head and Neck Surgery
Dr. Arnold E. Katz, professor of surgery and chief of otolaryngology-head and neck surgery, was again selected for inclusion in the Castle Connolly Guide, Top Doctors: New York Metro Area, published last December. This selection is based on screening by a physician-directed research team that identifies the top 10% of physicians in the entire New York Metropolitan area.

Dr. Denise C. Monte, assistant professor of surgery, is our pediatric otolaryngologist, and has been specially trained to perform minimally traumatic “coblation” tonsillectomy and adenoidectomy. She has been performing this new procedure since last spring, and is currently training other members of our otolaryngology-head and neck surgery service in this technique.

Coblation is a gentler procedure, compared with conventional methods, for removing both tonsils and adenoids, and it offers a faster and easier recovery. Dr. Monte’s patients and their families say they are extremely satisfied with the results of the coblation operation they had at Stony Brook.

Dr. Denise C. Monte

Dr. Ghassan J. Samara, assistant professor of surgery, continues to perform successful minimally invasive endoscopic surgery to remove pituitary tumors, as featured in the previous issue of POST-OP (Fall-Winter 2005).

In addition to this work, Dr. Samara is performing endoscopic dacrocystorhinostomy (DCR) to treat the excessive secretion of tears due to obstruction of the lacrimal passages. He does this operation using a multidisciplinary approach, and collaborates with Dr. Gideon Schneck, assistant professor of ophthalmology.

Also with Dr. Schneck, Dr. Samara is performing endoscopic orbital decompression to treat proptosis (forward projection or displacement of the eyeball), which may be caused by hyperthyroidism. In this surgery, the bone between the eye socket and the sinuses is removed. The operation provides room for the eyes to return to their normal position. It may improve vision, and even save a patient from possible blindness.

Dr. Maisie L. Shindo

associate professor of surgery and director of head and neck oncology, was selected for inclusion in the new edition of the Castle Connolly Guide, Top Doctors: New York Metro Area, published last December. This selection is based on screening by a physician-directed research team that identifies the top 10% of physicians in the entire New York Metropolitan area.
Pediatric Surgery

Dr. Richard J. Scriven, assistant professor of surgery, in February was featured in Newsday’s special supplement, “Saving Bobby: The Tale of an LI Miracle.” This supplement told the story of the now-famous little boy of North Bellport whose head was accidentally crushed and who had successful emergency surgery at University Hospital. This event, which made national news, took place a year ago. Dr. Scriven was a member of the multidisciplinary surgical team that performed the life-saving surgery.

In response to the Newsday supplement, Dr. Scriven sent a letter to the editor in which he expressed his gratitude for the comprehensive articles explaining the teamwork that led to the patient doing so well. He pointed out: “For every person mentioned, there were another 10 who were integral to Bobby’s success.”

Plastic and Reconstructive Surgery

Dr. Balvant P. Arora, assistant professor of surgery, performs minimally invasive endoscopic browlift, one of several recent advances in browlift technique. Small incisions are made in the hair and endoscopes combined with tiny video cameras are placed underneath the skin. The muscles and underlying structures are resuspended. No skin is removed, and the hairline stays near the original position, while the eyebrows are uplifted.

Dr. Alexander B. Dagum, associate professor of surgery and chief of plastic and reconstructive surgery, in April co-directed the 8th Annual Cleft Palate-Craniofacial Center Symposium at Stony Brook, and gave a presentation on cleft lip.

The grand opening of our new Plastic and Cosmetic Surgery Center—located at 24 Research Way, Suite 100, in East Setauket, NY—is scheduled to take place in June. All our cosmetic services plus vein treatments will be provided there. An aesthetician will be there as well, to do facials, chemical peels, microdermabrasion, and other procedures.

Our cosmetic services include:

- Hair transplantation
- Face & forehead lift
- Eyelid rejuvenation
- Nose reshaping
- Breast lift & augmentation
- Tummy tuck
- Liposuction
- Total body contouring
- Botox
- Restylane
- Obaji facial treatments
- Peels
- Laser hair removal & laser vein therapy
- Facials
- Plus more

For more information, please call (631) 444-4666.

Our pediatric surgeons, Dr. Thomas K. Lee (photo above) and Dr. Richard J. Scriven (photo at right), took part in the Little Miracles Fashion Show benefiting the Sunrise Fund, held in March at Villa Lombardi’s in Holbrook, NY. Here they are seen with two survivors treated at Stony Brook, Elissa Mingino (above) and Alexis Alpert (right).

The Sunrise Fund at Stony Brook University Hospital was established to raise awareness about childhood cancer and to raise funds for specific projects including a respite center, a playroom, extended support services, facilities and programs that meet our families growing needs, and vital research into the causes and treatment of childhood cancers. The Fund supports a number of special initiatives at University Hospital and its pediatric oncology program.
Surgical Oncology

Dr. Marvin L. Corman, professor of surgery, who is one of our colon and rectal surgeons, performs minimally invasive stapled transanal rectal resection (STARR) for obstructed defecation syndrome (ODS). The newly developed STARR procedure has had considerable success in Europe, where about 200 surgeons have been trained so far to perform the procedure, and more than 3,000 patients have been treated with it. During the procedure, a device that simultaneously cuts and staples tissue is placed transanally to remove excess tissue and reinforce the rectum.

ODS is a condition, often associated with anatomical anomalies of the pelvic floor, that affects thousands of people in the United States—primarily women. It produces symptoms of inability to effect bowel evacuation. Those with ODS know that neither adequate nutrition and exercise nor medications resolve their problem. Biofeedback works occasionally. But now, ODS can be effectively treated by a minimally invasive surgical option for these individuals.

University Hospital is the regional northeast training center for the STARR procedure, a new program directed by Dr. Corman.

Dr. Corman continues to lead the development of University Hospital’s Anorectal Physiology Laboratory, which was established last year. This fully equipped facility enables our colorectal specialists to perform comprehensive anorectal physiology testing, and further distinguishes the quality of care in our colon and rectal surgery program.

Referring physicians are provided a complete, written, fully interpreted report on the testing that has been performed on their patients. Upon request, a colon and rectal surgeon will also provide a consultation and recommendations. In addition to other diagnostic procedures, defecography is now performed to evaluate how well stool is evacuated from the rectum.

Dr. Corman served as coordinator and presiding officer of Ciné Clinic I: Colon and Rectal Surgery, at the clinical congress of the American College of Surgeons held last fall in San Francisco, CA. In recent months, he has given several lectures here and elsewhere, including “Evaluation and Management of Diverticular Disease,” “Differential Diagnosis and Treatment of Inflammatory Bowel Disease,” “Evaluation and Management of E.R. Anorectal Problems,” and “Is the Miles Resection Obsolete?”

Dr. Corman directs a series of monthly colon and rectal dinner meetings that feature specialists who address a range of topics. This year, notable speakers have included Dr. Anthony Senagore (“Laparoscopic Colectomy: Is It Ready For Prime Time?”), Dr. David J. Schoetz, Jr. (“Local Treatment of Rectal Cancer”), and Dr. Robert W. Beart, Jr. (“Evolution of Continence Preservation in IBD-Problem Management”), among others. Physicians interested in attending should call (631) 444-3431.

Dr. Martin S. Karpeh, Jr., professor of surgery and chief of surgical oncology, has recently been appointed director of the Stony Brook University Cancer Center.

In this new and additional leadership role, Dr. Karpeh oversees the development of the Cancer Center’s research programs, clinical trials, and the hospital’s cancer treatment programs. He is also responsible for supervising the development of Stony Brook’s new outpatient cancer center, which is expected to open by fall 2006.

“Our goal is to continue recruiting top physicians for our programs, implement new and more effective forms of surgery, and initiate and participate in more clinical trials that feature new and groundbreaking therapies for our patients,” says Dr. Karpeh.

Dr. Karpeh was selected for inclusion in the first edition of the Castle Connolly’s America’s Top Doctors, published in November. This selection is based on screening by a physician-directed research team that identifies the top 1% of physicians in the entire nation. In addition, he is included in the new edition of Castle Connolly’s Top Doctors: New York Metro Area, published last December.

Dr. Karpeh performs minimally invasive laparoscopic removal of gastrointestinal stromal tumors (GISTs). In published reports, patients experienced the anticipated benefits of a faster recovery and quicker return to normal activities. GISTs are benign neoplasms of the stomach, and are particularly amenable to laparoscopic resection.

Dr. Brian J. O’Hea, assistant professor of surgery and director of the Carol M. Baldwin Breast Care Center, was selected for inclusion in the first edition of the Castle Connolly Guide, America’s Top Doctors for Cancer, published last September. He was again selected for inclusion in Castle Connolly’s Top Doctors: New York Metro Area, published in December. This selection is based on screening by a physician-directed research team that identifies the top 10% of physicians in the entire New York Metropolitan area.

Dr. Karpeh is also included in the new edition of Castle Connolly’s America’s Top Doctors: New York Metro Area, published last December.

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This May, Dr. Pameijer will participate in a free screening for melanoma to take place at Ward Melville High School, located at 380 Old Town Road in East Setauket, NY. An awareness program about melanoma will include short seminars on melanoma and skin protection, exhibits, and take-home materials. For more information, please call Stony Brook’s HealthConnect at (631) 444-4000 weekdays from 8:30 AM to 7:00 PM.

In March, Dr. Pameijer presented a poster at the annual meeting of the Society of Surgical Oncology, held in San Diego, CA, of her study titled “Conversion of Tumor Antigen Ligands Identified by Phage Display to Chimeric T-Cell Receptors.”

Dr. Kepal N. Patel, assistant professor of surgery, who is one of our head and neck specialists, performs minimally invasive endoscopic stapling of Zenker’s diverticulum, a common esophageal swallowing disorder that affects thousands of elderly Americans, primarily women.

Patients treated with the new endoscopic procedure report significant improvement in their symptoms, and are usually able to eat a soft, solid diet within a week. The smaller incision minimizes tissue damage, allowing for a shorter hospital stay and faster recovery. Patients also enjoy reduced post-op pain and less scarring than open surgery.

One review of patients who underwent endoscopic stapling of Zenker’s diverticulum (Laryngoscope 2000;110:2020-5) found that 96% of patients had improvement or complete resolution of their symptoms, with patient satisfaction rates ranging from 90% to 99%.

At the clinical congress of the American College of Surgeons, held last fall in San Francisco, CA, Dr. Patel presented a video of his work titled “Deep Lobe Parotid Tumors,” which details another area in which he has special expertise.

This March, Dr. Patel was selected to participate in the 2006 Young Surgical Investigators Conference, sponsored by the Surgical Research Committee of the American College of Surgeons, held in North Bethesda, MD.

The purpose of this conference was to assist surgeon-scientists like Dr. Patel who are entering the process of obtaining extramural, peer-reviewed grant support for their work. The conference was held with staff of the National Institutes of Health in attendance.

Dr. Patel has distinguished himself for his work as a translational cancer researcher. He is currently working on genetic profiling in the progression of thyroid cancer.

Dr. David E. Rivadeneira, assistant professor of surgery, continues to perform successful minimally invasive laparoscopic surgery for colon cancer, as featured in the previous issue of POST-OP (Fall-Winter 2005), and for non-cancerous conditions such as diverticulitis, ulcerative colitis, and Crohn’s disease.

Abdominal incisions for traditional colectomy can be as long as 10-12 inches, but with laparoscopic surgery, each small incision is usually less than 1 inch. This approach helps to minimize patient trauma and enhance recovery for most patients.

“Patients undergoing laparoscopic surgery for colon cancer may also experience less pain post-surgery and a quicker recovery than those who have conventional open colectomy,” says Dr. Rivadeneira.

A leading laparoscopic specialist, Dr. Rivadeneira also continues to direct one-day workshops in hand-assisted laparoscopic colon and rectal surgery at Stony Brook and elsewhere, including Weill Cornell Medical College, Lahey Clinic, University of Alabama, and University of Massachusetts. These workshops are designed for general and colon/rectal surgeons and residents who are familiar with laparoscopic techniques, and who wish to expand their skills to laparoscopic intestinal surgery.
In addition to this activity, Dr. Rivadeneira was recently an invited speaker at the Portuguese Surgical Congress, held in March in Lisbon, where he gave a keynote address titled “Laparoscopic Colon Surgery: The Time Is Now.”

Dr. Rivadeneira has also been invited to participate as faculty at the annual meeting of the American Society of Colon and Rectal Surgeons (ASCRS), to be held in June in Seattle, WA, where he will take part in a one-day workshop on hand-assisted laparoscopic intestinal surgery (“repeated by popular demand,” says the meeting program) and also participate in a symposium on laparoscopic technique. Also, as chair of the awards committee for the ASCRS, he will preside over the awards ceremony there.

At this ASCRS meeting, the following multi-center study to which Dr. Rivadeneira contributed will be presented:

Adoption of laparoscopic colectomy: results and implications of ASCRS hands-on course participation [authors: Ross H, Marcello P, Rivadeneira D, Simms C, Fleshman J].

At the clinical congress of the American College of Surgeons, held last fall in San Francisco, CA, Dr. Rivadeneira presented a video of his work titled “Reconstruction Following Obstetrical Injury,” which details another area in which he has special expertise.

Dr. William B. Smithy, assistant professor of surgery, was again selected for inclusion in the latest edition of the Castle Connolly Guide, Top Doctors: New York Metro Area, published last December. This selection is based on screening by a physician-directed research team that identifies the top 10% of physicians in the entire New York Metropolitan area.

Surgical Research
Dr. Mark M. Melendez, our ECRIP (Empire Clinical Research Investigator Program) fellow, funded by the New York State Department of Health, is the first author of the following study presented at the annual meeting of the American Burn Association, held in April in Las Vegas, NV:


Among the study’s co-authors are Dr. Alexander B. Dagum and Dr. Balvant P. Arora, both of our Division of Plastic and Reconstructive Surgery.

Transplantation
Dr. Kazimierz Malinowski, research associate professor of surgery and director of the histocompatibility and immunogenetics laboratory, retired last December after 17 years of service.

Vascular Surgery
Dr. John J. Ricotta, professor and chairman of surgery and chief of vascular surgery, was featured in an article about carotid stenting for stroke prevention titled “Stent vs. Scalpel” that was published in the New York Times (Nov. 29, 2005). This article points out that Dr. Ricotta “sought training in the stenting procedure last April, to be able to give patients more options.”

Dr. Ricotta was again selected for inclusion in the Castle Connolly Guide, America’s Top Doctors, published last November. This selection is based on screening by a physician-directed research team that identifies the top 1% of physicians in the entire nation. He is also included again in Castle Connolly’s Top Doctors: New York Metro Area, published last December.

Our Electronic Physician Directory
The Department provides a physician directory as part of its website—please visit us at the following address to find information about our individual surgeons (see sample below), as well as our programs in patient care, education, research, and community service:

www.uhmc.sunysb.edu/surgery

Dr. Maisie L. Shindo


Residency Training: General Surgery/Otolaryngology-Head and Neck Surgery, University of Southern California-Los Angeles County Medical Center.

Fellowship Training: Head and Neck Oncologic Surgery, Northwestern University Hospital; Head and Neck Microvascular Reconstructive Surgery, Ohio State University.

Board Certification: Otolaryngology.

Specialties: Surgery for thyroid and parathyroid disorders, including minimally invasive surgery (both parathyroidectomy and thyroidectomy); management of thyroid cancer and other head and neck cancers.

Additional: Director, Head and Neck Oncology Program; Fellow, American College of Surgeons (FACS); see selected recent publications.


Language Spoken: English.

Consultations/Appointments: 631-444-4121.

Dr. John J. Ricotta

MD: New York University School of Medicine (MD) (1984); New York University Hospital (Residency: General Surgery); Stanford University Hospital (Fellowship: Vascular Surgery)

Current Position: Professor and Chairman, Department of Vascular Surgery; Chief, Section of Vascular Surgery

Specialties: Vascular surgery

Honors:’, and 5. 1. 2.

Selected Publications:

Dr. William B. Smithy

Department Enrolled in National American College of Surgeons Quality Improvement Program

Participating Centers Have Improved Health Outcomes and Increased Patient Satisfaction

In February, University Hospital became a participating center in a national surgical quality improvement program of the American College of Surgeons. This program, called the National Surgical Quality Improvement Program (NSQIP), has an impressive record of substantially reducing morbidity and mortality and increasing patient satisfaction.

The NSQIP is the first nationally validated, risk-adjusted, outcomes-based program to measure and improve the quality of surgical care. It is designed to help clinical surgery departments collect and analyze risk-adjusted surgical outcomes data in order to develop clinical performance improvement initiatives.

Medical centers participating in the NSQIP have improved health outcomes, reduced postoperative lengths of stay and hospital costs, and increased patient satisfaction.

The program employs a prospective, peer controlled, validated database to quantify 30-day risk-adjusted surgical outcomes, which allows valid comparison of outcomes among all hospitals in the program. Medical centers and their surgical staff are able to use the data to make informed decisions regarding their continuous quality improvement efforts.

In 2002, the Institute of Medicine named the NSQIP “the best in the nation” for measuring and reporting surgical quality and outcomes.

The data collection at Stony Brook is conducted by a surgical clinical nurse reviewer, trained by NSQIP personnel, who records and reports 30-day morbidity and mortality outcomes for selected major inpatient and outpatient surgical procedures in general and vascular surgery. For each surgical case, this reviewer collects data on a host of variables, including demographic, preoperative, intraoperative, and postoperative data.

Data are then reported daily online, and in ad-hoc, semiannual, and annual reports. Findings from the reports will provide the foundation for quality improvement action plans.

As evidence of the NSQIP’s effectiveness, the U.S. Department of Veterans Affairs from 1991 to 2001 experienced a 27% decline in postoperative mortality and a 45% drop in postoperative morbidity through participation in the program. Not only that, median postoperative length of stay fell from nine to four days, and not surprisingly, patient satisfaction improved.

“Our participation in this program will help us to identify and reduce factors associated with post-op complications,” says John J. Ricotta, MD, professor and chairman of surgery. “It will help us to continually improve our performance and outcomes. It will also give us a great teaching tool for both residents and faculty. And what we learn should greatly benefit our patients here.”

Basic and Advanced Laparoscopic Surgery
continued from Page 3

TRAINING SURGEONS

We not only perform an expanding range of laparoscopic procedures, we also teach them to our surgical residents, the upcoming generation of surgeons. In addition, we also provide special training programs for practicing surgeons from our local community and elsewhere.

Our Simulation and Training Center is in the initial planning stages. This facility will be used to train not just residents, but community physicians as well, in new techniques. It will also be used to help ensure that surgeons maintain a certain skill level in the performance of both basic and advanced laparoscopic procedures.

For consultations/appointments with our laparoscopic specialists, please call (631) 444-4545.

Laparoscopy is also called “band-aid” surgery because only small incisions need to be made.
Alumni News

Dr. Kelly M. James (’93) practices in Independence, MO. Last year he completed his tenure as chief of staff of Independence Regional Medical Center, and has been appointed medical director of trauma.

Dr. M. Dorothy Fogerty (’97) has been a staff surgeon at the Tennessee Valley Veterans Affairs Medical Center in Nashville, TN, and clinical assistant professor of surgery at Vanderbilt University since 2003. In addition to practicing general surgery, she is currently enrolled in the MPH program at Vanderbilt. Dr. Naji N. Abumrad, former chairman of Stony Brook’s surgery department and currently chairman of the surgery department at Vanderbilt, is one of her research mentors. The MPH program there is designed to help clinicians develop the skills to conduct research with an emphasis on biostatistical methods and epidemiologic analysis. Dr. Fogerty says she is anxious to get some of her ideas on track.

Dr. Tomasz Kozlowski (’03) last June completed his transplantation fellowship at Johns Hopkins University, and in July started his current position as assistant professor of surgery in the Division of Abdominal Transplant Surgery at the University of North Carolina at Chapel Hill. His practice there focuses on adult and pediatric liver transplant; pancreas and kidney transplant; laparoscopic nephrectomy for live donation; and management and treatment of highly sensitized and ABO incompatible kidney transplant recipients. Three of his recent journal publications are:


Dr. Steve R. Martinez (’03) is currently completing the last year of a three-year surgical oncology fellowship at the John Wayne Cancer Institute in Santa Monica, CA. This fellowship, which has a strong academic component, comprises 18 months of clinical training and 18 months of basic science research. Dr. Martinez has therefore done much work in both patient care and research. His recent journal publications include:


In addition, Dr. Martinez has co-authored a book chapter on the clinical utility of RNA and DNA molecular markers as prognostic indicators of disease outcome and response to therapy in malignant melanoma, which appears in the newly published work, From Melanocytes to Malignant Melanoma: The Progression to Malignancy, published by Humana Press. He shared a 2005 Merit Award presented by the American Society of Clinical Oncology for his contribution to a study titled “Circulating Methylated DNA in Serum Predicts Melanoma Patients’ Response to Biochemotherapy” [Proc Am Soc Clin Oncol 2005; 23:715]. A personal note: The birth of his third child, Tomas Diego Martinez, happened on January 25 of last year, and Dr. Martinez proudly adds that he “had to deliver this one, too.”

To submit alumni news online and to find current mailing addresses of our alumni, please visit the Department’s website at www.uhmc.sunysb.edu/surgery

GENERAL SURGERY ALUMNI

Please send your e-mail address—for inclusion in the Alumni Directory—to Jonathan.Cohen@StonyBrook.edu
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