

FLS

FUNDAMENTALS
of LAPAROSCOPIC SURGERY

...the definitive laparoscopic skills
enhancement and assessment module.

REVIEW/LEARN THE BASICS | PRACTICE YOUR SKILLS | TEST YOUR KNOWLEDGE



**FLS Program now available at no cost
to qualified surgical residency
programs and fellowships.**

Please see page 5



Division of Education

ABOUT SAGES AND ACS

About the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES)...

- Established the first endoscopic and laparoscopic standards of training and practice for surgeons. Still publishes signature guidelines 15 years later.
- Initiated the Framework for Post Residency Education and Training.
- Promulgates guidelines in standards of practice and training that reflect up-to-date scientific data and surgical knowledge.
- Operates the pre-eminent Annual Scientific Session and Postgraduate Courses in Endoscopic Surgery.
- Has been the leading voice for more than 20 years in the safe adoption of emerging minimal access technology.



About the American College of Surgeons (ACS)...

- Founded in 1913, the College is dedicated to improving the care of the surgical patient and to safeguarding standards of care in an optimal and ethical practice environment.
- The ACS has more than 64,000 Fellows including 3,700 Fellows in other countries, making it the largest organization of surgeons in the world.
- The College is a premier educational resource for surgeons and offers numerous activities for continuous professional development including:
 - Clinical Congress and Spring Meeting
 - Didactic and skills-oriented postgraduate courses
 - Surgical Education and Self-Assessment Program (SESAP)
 - CD-ROMs, Web casts, and e-learning modules and resources
 - New initiatives focusing on the core competencies, verifications of skills, and use of simulations and simulators



FLS IS A PROGRAM FOR EVERY GENERAL SURGEON WHO PERFORMS LAPAROSCOPIC SURGERY AND EVERY RESIDENT WHO WILL PERFORM LAPAROSCOPIC PROCEDURES IN THE FUTURE.

What is FLS?

FLS is a comprehensive web-based educational module that includes a hands-on skills training component and validated assessment tool designed to teach the physiology, fundamental knowledge, and technical skills required in basic laparoscopic surgery. FLS is CME accredited.

FLS covers a wide range of topics including techniques for safe entry into the peritoneal cavity, physiological changes associated with pneumoperitoneum and appropriate use of energy sources. Following study, you will be tested on your cognitive knowledge, technical skills and clinical judgment.

The FLS Laparoscopic Trainer Box allows you to practice your technical skills, improve dexterity and psychomotor skills.

The Assessment Component is a two-part, proctored exam that consists of a multiple-choice test and hands-on skills test utilizing the FLS trainer box. These exams cover the course material and the application of this knowledge with emphasis on clinical judgment and intraoperative decision-making.

Who is Eligible for the FLS Test?

FLS candidates are senior surgical residents, fellows and surgeons who perform laparoscopic surgery.

Where is FLS Available?

Learn at your institution or at home at your own convenience. **Then** you can take both the didactic and manual skills exams at:

- A regional Test Center near you
- The SAGES Annual Meeting and ACS Clinical Congress
- Your own institution in the presence of an approved FLS test proctor

Why Take the FLS Test?

Finally! A validated education and assessment program that definitively quantifies a candidate's cognitive knowledge and manual skills.

FLS provides hands-on skills training to practice technical abilities and improve dexterity.

FLS permits learning of minimally invasive techniques in a completely safe environment, without putting patients at risk.



YOU ARE ALREADY A PRACTICING SURGEON...
WHY SHOULD YOU REVIEW THE BASICS AND TAKE THE FLS TEST
AT THIS STAGE IN YOUR CAREER?

We believe FLS will set the standard for laparoscopic surgery. Surgeons are increasingly required to document their competency. FLS offers surgeons the opportunity to assess and document their own knowledge and skills.

Many surgeons who were already in practice during the advent of the laparoscopic revolution learned basic information and skills that were still a “work in progress”. Review and test yourself now on the knowledge and skills set that enhances patient safety and reduces risks for the surgeon.



A DEPARTMENT CHAIR IS RESPONSIBLE FOR MANY THINGS: PATIENT
CARE, EDUCATION OF FACULTY, STAFF AND RESIDENTS, RESEARCH AND
COMPLIANCE WITH ACCREDITING AGENCIES.

Education has become increasingly more difficult to provide to one's hospital staff. FLS is a complete and comprehensive educational package covering the basics of laparoscopic surgery.

FLS testing for your full-time surgical staff and attendings can give you an advantage with contracting, provides a credentialing tool and makes patients feel more confident.



COVIDIEN EDUCATIONAL FUND SUPPORTING FLS EDUCATION

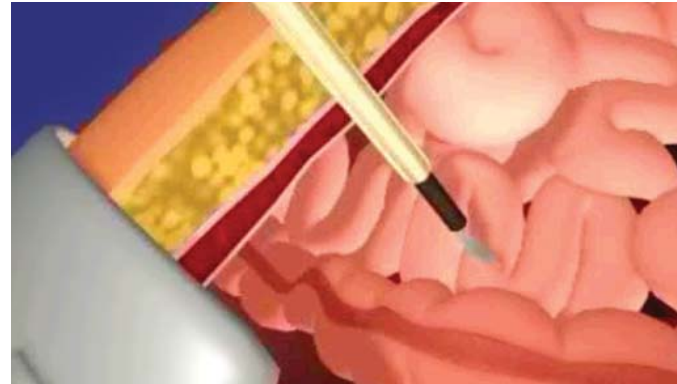
Recognizing the importance of improving surgical technical skills and enhancing patient safety, Covidien, a leading manufacturer of medical devices and supplies, has created The Covidien Educational Fund. This generous gift supports the introduction of the FLS Educational program into North American residency and fellowship training. Through this grant, FLS is available to general surgery faculty to use as a standardized educational tool for teaching and verification of learning of their trainees.

The Covidien Educational Fund brings no-cost training and testing directly to over 250 ACGME-accredited general surgical residency programs in the United States and Canada, reaching thousands of surgeons-in-training.



COVIDIEN

Surgery Program Directors are encouraged to apply by visiting www.flsprogram.org or calling 310-437-0544, ext. 130.



ABOUT FLS

FLS MISSION

To provide surgical residents and practicing surgeons with an opportunity to learn the fundamentals of laparoscopic surgery in a consistent, scientifically accepted format; and to provide a tool to test cognitive, clinical and technical skills, with the overarching goal of improving the quality of patient care.

FLS PROGRAM

FLS teaches residents and surgeons the physiology, instrumentation and technical skills involved in performing basic laparoscopic surgery. In addition, the FLS assessment component measures a candidate's cognitive knowledge, case/problem management skills and physical dexterity.

ACCREDITATION

The Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) is accredited by the Accreditation Council for Continuing Medical Education (A.C.C.M.E.) to sponsor Continuing Medical Education for physicians. SAGES designates this Continuing Medical Education activity for: 5.5 AMA PRA Category 1 Credits™ for the Fundamentals of Laparoscopic Surgery Program. Each physician should claim only credit that he/she actually spends in the educational activity.



LEARNER OBJECTIVES

At the conclusion of the program, the participant will be able to:

- Describe the instruments and equipment used in laparoscopic surgery
- Identify important intraoperative considerations such as anesthesia and patient positioning
- Discuss the physiology of the pneumoperitoneum
- Outline the processes of access, trocar placement and abdominal examination
- Demonstrate the technique of laparoscopic suturing
- Provide an overview of biopsy techniques and hemostasis
- Summarize the process of exiting the abdomen and the requirements for postoperative care

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Visit www.flsprogram.org for complete listing.



DIDACTIC CONTENT

I. Preoperative Considerations

Laparoscopic Equipment
Energy Sources
Room Set Up
Patient Selection & Preoperative Assessment

II. Intraoperative Considerations

Anesthesia & Patient Positioning
Pneumoperitoneum Establishment
Trocar Placement
Physiology of Pneumoperitoneum
Exiting the Abdomen

III. Basic Laparoscopic Procedures

Diagnostic Laparoscopy
Biopsy
Laparoscopic Suturing
Hemorrhage & Hemostasis

IV. Postoperative Care and Complications

Postoperative Care
Access Injuries
Pneumoperitoneum
Surgical Injury
Procedural Complications

V. Manual Skills Instruction & Practice

Training Exercises
Data Analysis



FLS LAPAROSCOPIC TRAINER BOX

General

The Laparoscopic Trainer Box is a device for surgical residents and practicing surgeons to develop the psychomotor skills and dexterity required during the performance of basic laparoscopic surgery. It is a portable unit that can be used in the user's environment of choice. The Trainer Box includes a set of accessories used to simulate specific surgical techniques that have been validated through the McGill Inanimate System for Training and Evaluation of Laparoscopic Skills (MISTELS) Program at McGill University.

Trainer Box

- Color CCD camera and solid state lighting system
- Cable for use with a TV monitor (NTSC-RCA connector)
- Large clip and Velcro to position and fasten accessories
- Field of view rectangle marked for proper alignment
- Attached PVC membrane and replacement membrane

Accessories Included with the Box

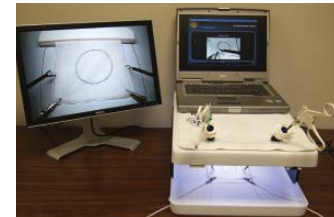
- 1 Dexterity Peg Board and 6 pegs for peg transfer
- 50 Gauze Pads with marked circle for pattern cutting
- 3 Simulated Organs for ligating loop
- 1 Suture Block for extra and intra-corporeal knot tying
- 50 Penrose Drains for extra and intra-corporeal knot tying
- Black, zippered, nylon carrying case
- 1 Jumbo Clip

Additional Accessories Sold Separately

FLS Manual Skills

Transferring, Precision cutting, Placement and securing of ligating loop, Simple suture with extracorporeal knot, and Simple suture with intracorporeal knot.

Please visit www.flsprogram.org for Order Form and pricing and purchasing information.



PURCHASE AND PACKAGE STRUCTURE

Individual Package

FLS Exam taken at Test Centers or various meetings

- Online Access to FLS Curriculum (includes didactics and manual skills) for one Individual
- 1 Numbered testing voucher that allows test candidate to take the FLS exam at any FLS test centers, SAGES Annual Meeting or ACS Clinical Congress
- Information Bulletin, test instructions, CME request form and FLS Trainer Box order information

Education Package A

FLS Exam taken at Test Centers or various meetings

- Online Access to FLS Curriculum (includes didactics and manual skills) for three individuals (access for additional persons may be purchased separately)
- 3 Numbered testing vouchers that allows test candidates to take the FLS exam at any FLS test centers, SAGES Annual Meeting or ACS Clinical Congress (additional vouchers may be purchased separately)
- Information Bulletin, test instructions, CME request form and FLS Trainer Box order information

Please visit www.flsprogram.org for FLS Order Form and pricing and purchasing information.



Education Package B

FLS Exam taken at Test Centers or various meetings

- Online Access to FLS Curriculum (includes didactics and manual skills) for five individuals (access for additional persons may be purchased separately)
- 5 Numbered testing vouchers that allows test candidates to take the FLS exam at any FLS test centers, SAGES Annual Meeting or ACS Clinical Congress (additional vouchers may be purchased separately)
- Information Bulletin, test instructions, CME request form and FLS Trainer Box order information
- 1 FLS Laparoscopic Trainer Box with included starter set of accessories (replacement accessories may be purchased separately)

Education Package C*

FLS Exam proctored on-site

- Online Access to FLS Curriculum (includes didactics and manual skills) for five individuals (access for additional persons may be purchased separately)
- 5 Numbered testing vouchers (additional vouchers may be purchased separately)
- Information Bulletin, test instructions, CME request form and FLS Trainer Box order information
- 1 FLS Laparoscopic Trainer Box with included starter set of accessories (replacement accessories may be ordered separately)
- On-site proctor single-day visit, including proctor transportation costs. (Site is responsible for proctor hotel accommodations. Additional days may be purchased.)

** Education Package C is available for Canada and U.S. sites only. Other sites should contact the SAGES FLS office for a customized pricing package.*

FLS TEST CENTERS

Western U.S.

- Legacy Institute for Surgical Education and Innovation, Portland, OR
- The Goodman Simulation Center at Stanford University, Stanford, CA
- University of Hawaii Telehealth Research Institute, SimTiki Simulation Center, Honolulu, HI
- Surgical Skills Training Center at the University of Southern California, Los Angeles, CA
- University of California at San Francisco Community Regional Medical Center, Fresno, CA
- University of Washington Medical Center, Institute for Surgical and Interventional Simulation, Seattle, WA
- David Geffen School of Medicine at UCLA, Los Angeles, CA
- University of Nevada School of Medicine Surgical Skills and Simulation Laboratory, Las Vegas, NV

Central U.S.

- Detroit Medical Center, Wayne State University, Detroit, MI
- Institute for Minimally Invasive Therapeutics, Summa Health System, Akron, OH
- Northwestern Feinberg School of Medicine, Center for Advanced Surgical Education, Chicago, IL
- University of Cincinnati Department of Surgery, Division of Education, Cincinnati, OH
- University of Illinois College of Medicine, Department of Surgery, Chicago, IL
- Washington University School of Medicine, St. Louis, MO
- University of Missouri, Department of Surgery, Sheldon Clinical Simulation Center, Columbia, MO
- Center for Minimally Invasive Surgery, The Ohio State University Medical Center, Columbus, OH
- Loyola University Golan Surgical Resident Resource Center, Maywood, IL

Eastern U.S.

- Baystate Medical Center, Springfield, MA
- Beth Israel Deaconess Medical Center, Carl J. Shapiro Simulation and Skills Center, Boston, MA
- Christiana Hospital VEST Center, Newark, DE
- Hospital of the University of Pennsylvania, Penn Medical Clinical Simulation Center, Philadelphia, PA
- Maine Medical Center, Portland, ME
- University of Massachusetts Medical School, Worcester, MA
- Lahey Clinic, Burlington, MA
- Staten Island University Hospital, Staten Island, NY

Southern U.S.

- Center for Excellence for Laparoscopic and Minimally Invasive Surgery, University of Miami Miller School of Medicine, Miami, FL
- Duke University Medical Center, Durham, NC
- Johns Hopkins Minimally Invasive Surgical Training Center, Baltimore, MD
- The Methodist Institute for Technology, Innovation and Education, The Methodist Hospital, Houston, TX
- Uniformed Services University, National Capitol Area Medical Simulation Center, Bethesda, MA
- University of Maryland Medical Center, Baltimore, MD
- University of Texas Southwestern Medical Center, Southwestern Center for Minimally Invasive Surgery, Dallas, TX
- Vanderbilt University School of Medicine, Center for Experiential Learning and Assessment Simulation Technologies Program, Nashville, TN
- Clinical Simulation Center, Washington Hospital Center, Washington, D.C.
- Greenville Hospital System Healthcare Simulation Center, Greenville, SC
- Medical University of South Carolina Simulation Center, Charleston, SC
- University of Texas Health Science Center, San Antonio, TX
- Virginia Commonwealth University Minimally Invasive Surgery Center, Richmond, VA

CANADA

- McGill University Health Center, Montreal, Quebec
- University of British Columbia Centre for Excellence for Surgical Education and Innovation, Vancouver, British Columbia
- University of Toronto Surgical Skills Centre, Toronto, Ontario



Division of Education



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COVIDIEN

SAGES and ACS gratefully acknowledge Covidien for their generous educational grant to support the introduction of FLS into general surgery residencies and selected fellowships throughout North America.