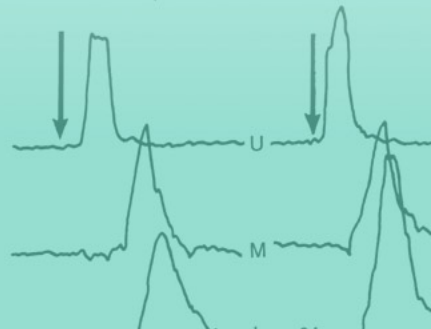


SURGERY

A CLINICAL APPROACH



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SURGERY

A CLINICAL APPROACH

EDITED BY

FRED S. BONGARD, M.D.

Associate Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Chief, Division of Trauma and Critical Care, Director of Surgical Education, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

MICHAEL J. STAMOS, M.D.

Associate Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Chief, Section of Colon and Rectal Surgery, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

EDWARD PASSARO, JR., M.D.

Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine; Chief, Surgical Service, Department of Surgery, West Los Angeles Veterans Affairs Medical Center, Los Angeles, California

Illustrations by William Tocci, M.S.



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*To my son Louis Reid Bongard
and to the memory of my grandparents
Louis and Rose Bongard, who he never met.*

Fred S. Bongard, M.D.

*To my wife Bridget
who provided inspiration in the beginning,
contributions in the middle,
and support in the end.*

Michael J. Stamos, M.D.

謹以此書獻給愛妻王更
及我們的父母親王覺中和
王相琴。感謝他們的愛心
與支持。

Edward Passaro, Jr., M.D.

C O N T R I B U T O R S

FRITZ BAUMGARTNER, M.D.

Assistant Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Chief, Division of Cardiothoracic Surgery, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

MARVIN BERGSNEIDER, M.D.

Assistant Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Division of Neurosurgery, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

FRED S. BONGARD, M.D.

Associate Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Chief, Division of Trauma and Critical Care, Director of Surgical Education, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

RINALDO CANALIS, M.D.

Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Chief, Division of Head and Neck Surgery, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

CHRISTIAN DE VIRGILIO, M.D.

Assistant Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Division of Vascular Surgery, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

CARLOS E. DONAYRE, M.D.

Assistant Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Division of Vascular Surgery, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

PAVEL DULGEUROV, M.D.

Assistant Professor of Medicine, Department of Otolaryngology, University of Geneva School of Medicine; Staff Physician, Department of Otolaryngology, University of Geneva Medical Center, Geneva, Switzerland

GERHARD J. FUCHS, M.D.

Associate Clinical Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California

CLAUDINE GYSIN, M.D.

Fellow in Residence, Department of Otolaryngology, University of Geneva School of Medicine, Geneva, Switzerland

CHARLES N. HEADRICK, M.D.

Assistant Clinical Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Division of Colon and Rectal Surgery, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

DAVID K. IMAGAWA, M.D.

Assistant Professor, Department of Surgery, University of California, Irving, College of Medicine, Irving, California; Director UCI/UCLA Liver Transplant Program; Director, UCLA Transplant Laboratory, Los Angeles, California

CYNTHIA M. KELLY, M.D.

Instructor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California

DANIEL F. KELLY, M.D.

Assistant Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Division of Neurosurgery, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

MILAN KINKHABWALA, M.D.

Assistant Professor, Department of Surgery, Cornell University Medical College; Director, Pancreas Transplant Program, Department of Surgery, New York Hospital-Cornell Medical Center, New York, New York

STANLEY R. KLEIN, M.D.

Associate Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Chief, Division of Surgical Oncology, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

TAI-SHION LEE, M.D.

Professor, Department of Anesthesiology, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California

MALCOLM LESAVOY, M.D.

Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Chief, Division of Plastic and Reconstructive Surgery, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

MARK S. LITWIN, M.D.

Assistant Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Division of Urology, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

DUNCAN Q. MCBRIDE, M.D.

Associate Professor of Clinical Surgery, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Chief, Division of Neurosurgery, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

THOMAS C. MOORE, M.D.

Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Division of Pediatric Surgery, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

GERALD MOSS, M.D.

Assistant Clinical Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Division of Surgical Oncology, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

SINA NASRI, M.D.

Surgery Fellow, Department of Otolaryngology, Stanford University School of Medicine, Palo Alto, California, and University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California

GIDEON P. NAUDE, M.D.

Clinical Instructor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Division of Trauma and Critical Care, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

EDWARD PASSARO, JR., M.D.

Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine; Chief, Surgical Service, Department of Surgery, West Los Angeles Veterans Affairs Medical Center, Los Angeles, California

JACOB RAJFER, M.D.

Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Chief, Division of Urology, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

MICHAEL RIDGEWAY, M.D.

Fellow in Surgical Oncology, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

GENE ROBINSON, M.D.

Division of General Surgery, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

THOMAS P. SCHMALZRIED, M.D.

Assistant Clinical Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Division of Orthopaedic Surgery, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

MARCO SCOCCIANI, M.D.

Clinical Instructor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Division of Vascular Surgery, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

JOEL A. SERCARZ, M.D.

Assistant Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Attending Physician, Division of Otolaryngology, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

R. KENDRICK SLATE, M.D.

Assistant Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Division of Plastic and Reconstructive Surgery, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

BRUCE E. STABILE, M.D.

Professor and Vice-Chairman, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Chairman, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

MICHAEL J. STAMOS, M.D.

Associate Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Chief, Division of Colon and Rectal Surgery, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

HERNAN I. VARGAS, M.D.

Assistant Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Division of Surgical Oncology, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

MARILENE B. WANG, M.D.

Associate Professor-in-Residence, Division of Head and Neck Surgery, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine; Staff Surgeon, ENT Section, Department of Surgery, West Los Angeles Veterans Affairs Medical Center, Los Angeles, California

RODNEY A. WHITE, M.D.

Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Chief, Vascular Surgery, Associate Chair, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

DANIEL ZINAR, M.D.

Associate Professor, Department of Surgery, University of California, Los Angeles, UCLA School of Medicine, Los Angeles, California; Chief, Division of Orthopaedic Surgery, Department of Surgery, Harbor-UCLA Medical Center, Torrance, California

F O R E W O R D

Surgery: A Clinical Approach represents a unique and very special achievement by the surgical faculty at Harbor-UCLA Medical Center. The idea for the book was spawned by the recognition of an unmet need among today's medical students and house staff. That need relates to the explosion of factual knowledge within the surgical disciplines that all too often leaves the students and residents overwhelmed and bewildered. In response to this conundrum, the editors of this text set out to abstract and codify principles, concepts, and essential surgical knowledge into a form and format that not only should but *could* be assimilated during a brief surgical clerkship. In a unique departure from conventional texts, they have also provided a CD-ROM keyed to the text that is intended to provide the reader with as much relevant data as desired. Thus, *Surgery: A Clinical Approach* has been created specifically to be an introductory text rather than a comprehensive compendium of surgical facts. It has been designed to stress principles and concepts more than the acquisition of data, although the latter has been made readily available. The inclusion of case presentations at the beginning of each chapter is intended to immerse the student immediately into the "real world" of clinical surgery in a way that is stimulating and that facilitates acquisition and integration of the chapter's essential information. It is the wish of the editors and contributors that the book be genuinely fun to read. The addition of

"Key Points" highlight boxes, which summarize the most important information, is meant to save the student time and permit rapid and efficient review.

The assembly of this text was, of course, a great amount of work for the authors and a tremendous undertaking on the part of the editors. All who contributed are actively engaged in the education of medical students, residents, and practicing surgeons. More importantly, all are deeply concerned with and committed to teaching and wanted this to be an institutional effort. The character of the book clearly bears the imprint of the faculty's approach to student education. It is our hope that *Surgery: A Clinical Approach* will serve not only to provide clinically useful concepts and information, but also to stimulate the interest and curiosity of all students of surgery.

Bruce E. Stabile, M.D.
Professor and Vice-Chairman
Department of Surgery
University of California, Los Angeles,
UCLA School of Medicine
Los Angeles, California
Chairman
Department of Surgery
Harbor-UCLA Medical Center
Torrence, California

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A B B R E V I A T I O N S

AAA	abdominal aortic aneurysm	COM	chronic otitis media
A-aDO₂	alveolar-arterial oxygen content gradient	COPD	chronic obstructive pulmonary disease
ABI	ankle brachial index	CPAP	continuous positive airway pressure
AC	assist control	CPP	cerebral perfusion pressure
ACTH	adrenocorticotrophic hormone	CRF	corticotropin release factor
ADH	antidiuretic hormone	CsA	cyclosporine
AFP	α -fetoprotein	CSF	cerebrospinal fluid
AHF	antihemophilic factor	CT	computed tomography
AIDS	acquired immunodeficiency syndrome	CVA	costovertebral angle
ALT	alanine aminotransferase	CVP	central venous pressure
AMBU	assisted mechanical breathing unit	D₅W	5% dextrose in water
ANA	antinuclear antibodies	DCIS	ductal carcinoma in situ
AOM	acute otitis media	DIC	disseminated intravascular coagulation
APR	abdominal perineal resection	DIP	distal interphalangeal
ARDS	adult respiratory distress syndrome	DNA	deoxyribonucleic acid
5-ASA	aminosalicylic acid	DO₂	oxygen delivery
ASD	atrial septal defect	DVT	deep venous thrombosis
AST	aspartate aminotransferase	EBV	Epstein-Barr virus
ATN	acute tubular necrosis	ECG	electrocardiogram
AUA	American Urologic Association	ECM	erythema chronicum migrans
(a-v)DO₂	arterial-venous oxygen content gradient	ECMO	extracorporeal membrane oxygenation
AV	atrioventricular	EGD	esophagogastroduodenoscopy
AVM	arteriovenous malformation	ELISA	enzyme-linked immunosorbent assay
BCC	basal cell carcinoma	EMG	electromyograph
BCG	bacillus Calmette-Guerin	ERCP	endoscopic retrograde cholangiopancreatography
β-hCG	β -human chorionic gonadotropin	ESR	erythrocyte sedimentation rate
BMA	bone marrow aspiration	ESRD	end-stage renal disease
BPH	benign prostatic hyperplasia	ESWL	extracorporeal shock wave lithotripsy
bpm	beats per minute	EtOH	ethanol
CABG	coronary artery bypass graft	FAP	familial adenomatous polyposis
CAM	congenital adenomatoid malformation	FEV₁	forced expiratory volume in 1 second
CaO₂	arterial oxygen content	FFP	fresh frozen plasma
CAS	carotid artery stenosis	FNA	fine needle aspiration
CBC	complete blood count	FNH	focal nodular hyperplasia
CEA	carcinoembryonic antigen	G-CSF	granulocyte colony-stimulating factor
CHF	congestive heart failure	GCS	Glasgow Coma Scale
CIS	carcinoma in situ	GFR	glomerular filtration rate
CMV	continuous mandatory ventilation	GGT	gamma-glutamyl transpeptidase
CMV	cytomegalovirus	H₂	histamine-2 (receptor)
CO	cardiac output	HAT	hepatic artery thrombosis
CO₂	carbon dioxide	Hb	hemoglobin

HbSat	hemoglobin saturation	PE	pulmonary embolism
Hct	hematocrit	PGE₁	prostaglandin E ₁
HgBAic	glycated hemoglobin	PIP	proximal interphalangeal
HIDA	dimethyl-iminodiacetic acid	PMN	polymorphonuclear neutrophil (leukocyte)
HIV	human immunodeficiency virus	PO	oral
HLA	human leukocyte antigen (histocompatibility antigens)	PO₂	oxygen partial pressure
HNPCC	hereditary nonpolyposis colon cancer	PPD	purified protein derivative
HPF	high power field	PRBC	packed red blood cell
HR	heart rate	PSA	prostate-specific antigen
HTO	high tibial osteotomy	PT	prothrombin time
IBD	inflammatory bowel disease	PTH	parathyroid hormone; parathormone
ICA	internal carotid artery	PTT	partial thromboplastin time
ICP	intracranial pressure	RA	test for rheumatoid factors
ICU	intensive care unit	RBC	red blood cell
IDA	iminodiacetic acid	RF	rheumatoid factor
IL	interleukin	RIA	radioimmunoassay
IM	intramuscular	RIND	reversible ischemic neurologic deficit
IMA	inferior mesenteric artery	RNA	ribonucleic acid
IMV	intermittent mandatory ventilation	RPLND	retroperitoneal lymph node dissection
INH	isoniazid	RQ	respiratory quotient
IV	intravenous	SaO₂	arterial oxygen hemoglobin saturation
JNA	juvenile rheumatoid arthritis	SCC	squamous cell carcinoma
KOH	potassium hydroxide	SGOT	serum glutamic oxaloacetic transaminase
KUB	kidney-ureter-bladder	SGPT	serum glutamic pyruvic transaminase
LBO	large bowel obstruction	SIMV	synchronized intermittent mandatory ventilation
LCIS	lobular carcinoma in situ	SLE	systemic lupus erythematosus
LDH	lactate dehydrogenase	SMA	superior mesenteric artery
LES	lower esophageal sphincter	SOM	secretory otitis media
LFT	liver function test	SPEP	serum protein electrophoresis
MAP	mean arterial pressure	S\bar{v}O₂	mixed venous oxygen hemoglobin saturation
MB	myocardial band	t-PA	tissue plasminogen activator
MCP	metacarpophalangeal	T3	triiodothyronine
MCV	mean corpuscular volume	T4	thyroxine
MEN	multiple endocrine neoplasia	TB	tuberculosis
6MP	6-mercaptopurine	TBSA	total body surface area
mph	miles per hour	TCC	transitional cell carcinoma
MRI	magnetic resonance imaging	Td	tetanus toxoid
N₂O	nitrous oxide	TGNM	cancer classification (tumor grade node metastasis)
NCV	nerve conduction study	TIA	transient ischemic attack
NEC	necrotizing enterocolitis	TIPS	transjugular intrahepatic portosystemic shunt
NG	nasogastric	TEA	transluminal angioplasty
NIH	National Institutes of Health	TN	tumor necrosis factor
NL	normal	TIM	cancer classification system (tumor node metastasis)
NO	nitric oxide	TRH	thyrotropin releasing hormone
NPO	nothing by mouth; nothing per os	TSP	thyroid stimulating hormone
NS	normal saline	TT	thrombin time
NSAID	nonsteroidal anti-inflammatory drug	TURP	transurethral resection of the prostate
OLT	orthotopic liver transplantation	UGI	upper gastrointestinal (series)
OM	otitis media	UTI	urinary tract infection
OPLL	ossification of the posterior longitudinal ligament	UPEP	urine protein electrophoresis
OPO	organ procurement organizations	US	ultrasonography
PaO₂	arterial oxygen partial pressure	UUN	urine urea nitrogen
PCA	patient controlled analgesia	$\dot{V}E$	minute volume
PCO₂	carbon dioxide partial pressure	VMA	vanillylmandelic acid
PCP	phencyclidine	$\dot{V}O_2$	peripheral consumption of oxygen
PCWP	pulmonary capillary wedge pressure	VSD	ventricular septal defect
PDA	patent ductus arteriosus	WBC	white blood cell
		WNL	within normal limits

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