



NUSS ADVANCED PECTUS COURSE 2021 CWIG Annual Meeting

Work with Newest Chest Wall Instrumentation

Conference agenda will include hands-on learning sessions^{*} in a simulation lab with brand new pectus equipment from Zimmer Biomet, PrimeMed Korea, and PAMPAMED Argentina. Virtual conference attendance available.

September 22, 23 & 24, 2021

Eastern Virginia Medical School, Lester Hall • 651 Colley Avenue, Norfolk, Virginia

SPACE IS LIMITED • REGISTER NOW CHKD.ORG/NUSSCONFERENCE

*Travel health restrictions will apply. Click to view the most current requirements at the US Centers for Disease Control.

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HISTORY AND OVERVIEW

Held in coastal Virginia, the Nuss Advanced Pectus Course and 2021 Chest Wall International Group (CWIG) Annual Meeting will include 11 hands-on workshops using Eastern Virginia Medical School's (EVMS) state-of-the-art simulation lab. These interactive workshops and didactic lectures will focus on nine chest wall deformity treatment techniques, allowing participants to work directly with new, innovative surgical tools.

Along with the pediatric surgery team at Children's Hospital of The King's Daughters (CHKD), guest speakers include 20 acclaimed surgeons from around the world, as well as Master of Ceremonies, Donald Nuss, MBChB, pioneer of the minimally invasive surgical technique for correction of pectus excavatum, the Nuss Procedure.

Over the last 30 years, Dr. Nuss and his surgical partners at CHKD have performed the procedure on more than 2,000 patients with proven results. Now led by Robert E. Kelly, Jr., MD, CHKD's pectus program evaluates over 300 patients annually for chest wall deformity and performs more than 140 chest wall reconstruction operations each year.

After requests for instructions on the Nuss procedure, CHKD held the first Nuss Conference in 2003 to offer education and treatment options for pectus excavatum, pectus carinatum, and other chest wall deformities. In 2016, CHKD and EVMS first collaborated to host the CWIG Annual Meeting. Due to the COVID-19 pandemic in 2020, the CWIG organization has delayed the annual meeting, and has designated this year's Nuss Advanced Pectus Course as the 2021 CWIG Annual Meeting.

EVMS SIMULATION LAB & HANDS-ON WORKSHOPS

Accredited by the American College of Surgeons, EVMS's Simulation and Immersive Learning lab allows in-person participants the opportunity to maneuver freely among multiple stations and perform various steps of the Nuss procedure. Manikin simulators with the newest industry equipment will be used to learn how to navigate the most hazardous parts of the operation.

The Hands-On Workshops will consist of 11 stations and will be carried out under the medical direction of Leonard J. Weireter, Jr., MD, FACS, with the personal direction of the developers of the computer simulator, Mohammad F. Obeid, PhD and Yuzhong Shen, PhD, Chairman of the Old Dominion University Modeling and Simulation Engineering Department. Nuss Center surgeons, including, Drs. Robert J. Obermeyer and Robert Kelly, will be available to the attendees.



TATION 1	Zimmer Biomet Technique Robert J. Obermeyer, MD
TATION 2	PrimeMed Technique Hyung Joo Park, MD, PhD
TATION 3	PAMPAMED Technique Marcelo Martinez-Ferro, MD Gastón Bellia Munzón, MD
TATION 4	Sternal Elevation with RulTract Robert E. Kelly, Jr., MD
TATION 5	Sternal Elevation with PrimeMed Screw Technique Hyung Joo Park, MD, PhD
TATION 6	Rib Plating and Sternal Plating: Zimmer Biomet Technique Raffaele J. Marchigiani, MD
TATION 7	Rib Plating: Acute Innovations Technique Jay Collins, MD
TATION 8	Pectus Up Technique Manuel Lopez, MD, PhD Margaret M. McGuire, MD
TATION 9	Cryotherapy, Transthoracic: Atricure Method Duane S. Duke, MD
TATION 10	Rib Fracture Plating: DePuy Synthes Technique Michael T. Martyak, MD
TATION 11	Redo Pectus Approach with BioBridge Technique Daniel L. Miller, MD

Wednesday, September 22, 2021

Master of Ceremonies: Donald Nuss, MBChB

7:15 a.m.	Registration and Continental Breakfast		
8:00 a.m.	Welcome (Virtual) Gov. Ralph Northam Governor of the Commonwealth of Virginia Pediatric Neurologist Children's Hospital of The King's Daughters Assistant Professor Eastern Virginia Medical School Alfred Z. Abuhamad, MD Interim President and Provost	10:40 a.m.	Pectus-Up Manuel Lopez, MD, PhD Barcelona, Spain
		11:00 a.m.	Bar Removal Margaret M. McGuire, MD Norfolk, Virginia
		11:20 a.m.	Redo Pectus Repair Following Open (Ravitch) Failure Daniel L. Miller, MD
	Dean of the School of Medicine Mason C. Andrews Professor and Chair Department of Obstetrics and Gynecology Eastern Virginia Medical School	11:40 a.m.	Atlanta, Georgia Slipping Rib Syndrome Lisa McMahon, MD Phoenix, Arizona
8:05 a.m.	Evaluation for Repair of Pectus Excavatum: Telemedicine Michael J. Goretsky, MD Norfolk, Virginia	Noon	Custom Implants for Unique Chest Wall Problems J. Duncan Phillips, MD Raleigh, North Carolina
8:20 a.m.	Evaluation of Patient with Pectus Excavatum: Cardiopulmonary Exercise Testing Rebeccah L. Brown, MD	12:20 p.m.	Lunch
		1:00 p.m.	Concurrent Sessions: Hands-on Workshops and Poster Presentations
0.40	Cincinnati, Ohio	4:00 p.m.	Adjourn
8:40 a.m.	Pectus Excavatum: Nuss Procedure, CHKD Method Robert J. Obermeyer, MD Norfolk, Virginia	To follow	CWIG Executive Committee Meeting Jose Ribas M. Campos, MD CWIG Executive Committee President
9:00 a.m.	Pectus Excavatum: Park Method, including Sandwich Technique Hyung Joo Park, MD, PhD Seoul, South Korea		Sao Paulo, Brazil Manuel Lopez, MD, PhD CWIG Executive Committee Secretary Barcelona, Spain
9:20 a.m.	Pectus Excavatum: PAMPAMED Method, including Optical Scanning Marcelo Martinez-Ferro, MD and Gastón Bellía Munzón, MD Buenos Aires, Argentina		Frank-Martin Haecker, MD CWIG Executive Committee Treasurer St. Gallen, Switzerland
9:40 a.m.	Adult Patient Modifications, including BioBridge Method Daniel L. Miller, MD Atlanta, Georgia		
10:00 a.m.	Break		
10:20 a.m.	Crossbar Technique Vladimir Kuzmichev, MD, PhD Moscow, Russia		

PROGRAM AGENDA - continued

Concurrent Sessions: Hands-on Workshops and

1	'hursday,	September	23, 2021	

Master of Ceremonies: Donald Nuss, MBChB		1:00 p.m.	Concurrent Sessions: Hands-on Workshops and Poster Presentations	
7:15 a.m.	Continental Breakfast	4:00 p.m.	Adjourn	
7:55 a.m.	Welcome (<i>Virtual</i>) L. D. Britt, MD, MPH, FACS, FCCM	Friday, September 24, 2021		
	The Henry Ford Professor and Edward J.	Master of Ceremonies: Donald Nuss, MBChB		
	Brickhouse Chairman Department of Surgery	7:15 a.m.	Continental Breakfast	
	Eastern Virginia Medical School	7:55 a.m.	Welcome	
	Past President American College of Surgeons	8:00 a.m.	Pediatric Chest Wall Tumors Frank-Martin Haecker, MD	
8:00 a.m.	Post-operative Pain Control: Transthoracic		St. Gallen, Switzerland	
	Cryoablation Marcelo Martinez-Ferro, MD Buenos Aires, Argentina	8:20 a.m.	Adult Chest Wall Tumors Christopher Satur, MA, MS, FRCS	
8:20 a.m.	Post-operative Pain Control:		(C-Th), DRCOG, DCH, DFFP	
0.20 4.111	Percutaneous Cryoablation		Stoke-on-Trent, United Kingdom	
	Manuel Lopez, MD, PhD Barcelona, Spain	8:40 a.m.	EVMS Perspective on Rib Fixation Michael T. Martyak, MD	
8:40 a.m.	Post-operative Pain Control:		Norfolk, Virginia	
	Erector Spinae Catheters Rebeccah L. Brown, MD	9:00 a.m.	Metal Ion Absorption After Pectus Bar Insertion	
9:00 a.m.	Cincinnati, Ohio		Caroline Fortmann, MD	
9:00 a.m.	CHKD Data on Pain Management Duane S. Duke, MD		Hannover, Germany	
9:20 a.m.	Norfolk, Virginia	9:20 a.m.	Poland's Syndrome Michele Torre, MD	
9.20 a.III.	Enhanced Recovery after Nuss Procedure Michael J. Goretsky, MD	0:40 a m	Genoa, Italy	
	Norfolk, Virginia	9:40 a.m.	Sternal Cleft Management Jose Ribas M. Campos, MD	
9:40 a.m.	Nonoperative Management of Pectus Excavatum: Vacuum Bell	10.00	Sao Paulo, Brazil	
	Robert J. Obermeyer, MD	10:00 a.m.	Break	
	Norfolk, Virginia	10:20 a.m.	Update on Physiologic Effects of Chest Wall Deformity	
10:00 a.m.	Break		Christopher Satur, MA, MS, FRCS	
10:20 a.m.	Brace Treatment of Pectus Carinatum		(C-Th), DRCOG, DCH, DFFP	
	Frazier W. Frantz, MD Norfolk, Virginia	10.40	Stoke-on-Trent, United Kingdom	
10:40 a.m.	Management of Scoliosis, Kyphosis, and	10:40 a.m.	Update on Imaging of Chest Wall Deformity Marcelo Martinez-Ferro, MD	
10.40 u.m.	Chest Wall Deformity		Buenos Aires, Argentina	
	Ikrom Uralboev, MD	11:00 a.m.	Update on Safe Chest Wall Surgery	
	Samarkand, Uzbekistan and		Andre Hebra, MD	
	Carl St. Remy, MD Norfolk, Virginia	11 20	Fort Myers, Florida	
11:00 a.m.	Carinatum Surgery: Current Status	11:20 a.m.	Management of Common Post-op Problems Michael J. Goretsky, MD	
11.00 a.m.	Frazier W. Frantz, MD		Norfolk, Virginia	
	Norfolk, Virginia and	11:40 a.m.	Update on Psychologic/Body Image Effects of	
	Chen Chenghao, MD		Chest Wall Deformity	
	Beijing, China		Caroline Fortmann, MD	
11:20 a.m.	Currarino Silverman Syndrome Management Manuel Lopez, MD, PhD Barcelona, Spain		Hannover, Germany	
		Noon	Brace Treatment of Chest Wall Problems Davi P. Haje, MD, PhD	
11:40 a.m.	Rib Stabilization in Other Settings		Brasilia, Brazil	
	Raffaele J. Marchigiani, MD	12:20 p.m.	Lunch	
Noon	Virginia Beach, Virginia	1:00 p.m.	CWIG Business Meeting	
Noon	ODU/CHKD/EVMS Collaboration: 10 Years' Experience	2:00 p.m.	Open Lab: Hands-on Workshops in EVMS	
	Mohammad F. Obeid, PhD	2.00 p	Simulation Lab	
	Norfolk, Virginia	4:00 p.m.	Adjourn	
12:20 p.m.	Lunch		-	

1:00 p.m.

FACULTY

COURSE DIRECTOR

Robert E. Kelly, Jr., MD Surgeon-in-Chief, Vice President for Surgical Affairs, Children's Hospital of The King's Daughters

Professor of Clinical Surgery and Pediatrics, Chief, Division of Pediatric Surgery Eastern Virginia Medical School

Adjunct Professor of Modeling and Simulation Engineering School of Engineering Old Dominion University Norfolk, Virginia

HONORARY COURSE DIRECTOR

Donald Nuss, MBChB Professor Emeritus of Surgery and Pediatrics,

Eastern Virginia Medical School Formerly Surgeon-in-Chief, Children's Hospital of The King's Daughters Norfolk, Virginia

GUEST FACULTY

Gastón Bellía Munzón, MD Senior Surgeon, Fundacion Hospitalaria Buenos Aires, Argentina

Rebeccah L. Brown, MD

Professor of Clinical Surgery and Pediatrics, Co-Director of Chest Wall Center, Associate Director of Trauma Services, Cincinnati Children's Hospital Medical Center Cincinnati, Ohio

Chen Chenghao, MD ~ *Invited* Beijing, China

Jay N. Collins, MD, FACS

Professor of Surgery, Arthur and Marie Kirk Family Chief Acute Care Surgery, Eastern Virginia Medical School Trauma Medical Director Sentara Norfolk General Hospital Norfolk, Virginia

Caroline Fortmann, MD Pediatric Surgeon,

Department of Pediatric Surgery Hannover Medical School Hannover, Germany

Frank-Martin Haecker, MD, FEAPU

Professor of Pediatric Surgery, Children's Hospital of Eastern Switzerland St. Gallen, Switzerland

Davi P. Haje, MD, PhD

Director of Orthopectus Clinical Center Hospital de Base do Distrito Federal Brasilia, Brazil

Andre Hebra, MD

Pediatric Surgery, Lee Physician Group Golisano Children's Hospital Fort Myers, Florida

Vladimir Kuzmichev, MD

Thoracic Surgeon, Chief, Department of Thoracic Surgery Professor of Pediatric Surgery Moscow Region Scientific Research Clinical Institute (MONIKI) Moscow, Russia

Manuel Lopez, MD, PhD

Head of Department of Pediatric Surgery and Urology University Hospital of Vall d'Hebron Barcelona, Spain

Marcelo Martinez-Ferro, MD

Professor of Surgery and Pediatrics, CEMIC University Chief, Division of Surgery Fundacion Hospitalaria Children's Hospital Buenos Aires, Argentina

Lisa McMahon, MD

Pediatric Surgeon, Surgical Director, IBD Clinic Medical Director, Chest Wall Anomalies Clinic Section Chief of Pediatric Surgery, Phoenix Children's Hospital Clinical Assistant Professor of Surgery, University of Arizona College of Medicine Clinical Assistant Professor of Surgery, Mayo Clinic, Phoenix, Arizona

Daniel L. Miller, MD

Chief, Thoracic Surgery Cancer Treatment Centers of America Southeastern Regional Medical Center Newnan, Georgia

Mohammad F. Obeid, PhD

Assistant Professor of Engineering, Shenandoah University Winchester, Virginia

Hyung Joo Park, MD, PhD, FCCP

Professor, Department of Thoracic and Cardiovascular Surgery Seoul St. Mary's Hospital College of Medicine Seoul, South Korea

J. Duncan Phillips, MD

Surgeon-in-Chief WakeMed Children's Hospital Director of Pediatric Surgery WakeMed Health and Hospitals Raleigh, North Carolina

Jose Ribas M. Campos, MD

Professor, Livre Docente da Disciplina de Cirurgia Toracica, Hospital das Clinicas Faculdade de Medicina da Universidade de Sao Paulo, Hospital Israelita Albert Einstein Retaguarda da Cirurgia Torácica Sao Paulo, Brasil

Christopher Satur, MA, MS, FRCS (C-Th), DRCOG, DCH, DFFP

Consultant Cardiothoracic Surgeon University Hospital of North Midlands NHS Trust Stoke-on-Trent, United Kingdom

Yuzhong Shen, PhD

Professor and Chairman, Computer Modeling and Simulation Engineering Department Old Dominion University Norfolk, Virginia

Carl St. Remy, MD

Assistant Professor of Orthopedics Eastern Virginia Medical School Chief, Orthopedics and Sports Medicine Children's Hospital of The King's Daughters Norfolk, Virginia

Michele Torre, MD

Director, Center of Pediatric Thoracic and Airway Surgery Giannina Gaslini Institute Genoa, Italy

Ikromjon Uralboev, MD

Smarkand Multibranch Medical Center Republik of Uzbekistan Samarkad, Uzbekistan

HOST FACULTY

Duane S. Duke, MD

Assistant Professor of Surgery and Pediatrics, Eastern Virginia Medical School Assistant Professor of Surgery, Walter Reed/Uniformed Services University Bethesda, Maryland Staff Surgeon and Director of ECMO, Children's Hospital of The King's Daughters Norfolk, Virginia

Frazier W. Frantz, MD

Assistant Professor of Clinical Surgery and Pediatrics Eastern Virginia Medical School Chief, Division of Pediatric Surgery Children's Hospital of The King's Daughters Norfolk, Virginia

Michael J. Goretsky, MD

Professor of Surgery and Pediatrics, Eastern Virginia Medical School Surgeon Champion – Pediatric NSQIP, Children's Hospital of The King's Daughters Norfolk, Virginia

Michael T. Martyak, MD

Assistant Professor of Surgery, Eastern Virginia Medical School Staff Surgeon, Sentara Norfolk General Hospital Norfolk, Virginia

Margaret M. McGuire, MD

Assistant Professor of Surgery and Pediatrics, Eastern Virginia Medical School Surgical Co-Director of the Pediatric Intensive Unit Children's Hospital of The King's Daughters Norfolk, Virginia

Raffaele J. Marchigiani, MD

Staff Surgeon, Thoracic Surgery Sentara Leigh Hospital Virginia Beach, Virginia

Robert J. Obermeyer, MD

Associate Professor of Clinical Surgery and Pediatrics, Eastern Virginia Medical School Vice Chair, Surgical Authorities Committee Children's Hospital of The King's Daughters Director, Children's Health System, Inc. Board of Directors Norfolk, Virginia

Leonard J. Weireter, Jr., MD Professor.

Eastern Virginia Medical School Medical Director, Sentara Center for Simulation and Immersive Learning Trauma Surgeon, Children's Hospital of The King's Daughters Norfolk, Virginia

TARGET AUDIENCE

This educational activity has been designed to inform pediatric surgeons, thoracic surgeons, plastic and orthopedic surgeons of established and novel approaches to correction of chest wall deformities.

LEARNING OBJECTIVES

- Analyze and manage chest wall deformities through didactic and hands-on training.
- Perform different techniques of the Nuss and other chest wall procedures to a satisfactory skill level as measured by assigned mentors.
- Relate the history, etiology, practical application, complications, and the Nuss procedure.
- Identify the devices needed to perform this procedure, determine their purpose, and compare different products.

CREDIT DESIGNATION

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of Eastern Virginia Medical School and Children's Hospital of The King's Daughters. Eastern Virginia Medical School is accredited by the ACCME to provide continuing medical education for physicians.

IN-PERSON ATTENDEES - CREDIT DESIGNATION

Eastern Virginia Medical School designates this live activity for a maximum of 17.25 AMA PRA Category 1 Credit[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

VIRTUAL ATTENDEES - CREDIT DESIGNATION

Eastern Virginia Medical School designates this live activity for a maximum of 11.25 *AMA PRA Category 1 Credit*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

SPECIAL SERVICES

If special arrangements are required for an individual with a disability, contact the EVMS CME office at (757) 446-6140 at least 15 days prior to the conference.

HOTEL ACCOMMODATIONS

A block of rooms has been reserved at the Hilton Norfolk The Main located at 100 East Main Street, Norfolk, VA 23510 at the group rate of \$159 per night for the nights of September 21-23, 2021. Please make reservations by calling (757) 763-6200 and referencing the **Group Code - CHK**. Group rates will be honored until September 2, 2021.

Self-parking at Hilton Norfolk The Main is \$20 and valet is \$26. To make a hotel room reservation, click here.

CAMPUS PARKING

Parking is available on campus in Visitor Garage A adjacent to CHKD for \$2/hr or \$8/day. Prices are subject to change.

TRANSPORTATION

Transportation to and from Hilton Norfolk The Main and campus events will be provided.

REGISTRATION/CANCELLATION POLICY

All cancellations must be made in writing prior to Friday, September 3, 2021 in order to receive a refund. No refunds will be given after this date. A 5% administrative service charge will be assessed on ALL cancellations. Refunds will not be given for cancellations received after this date or for "no shows." Cancellations must be submitted in writing to <u>CME@EVMS.edu</u>.

MEALS

Vegetarian meal options available at registration. For any other dietary restrictions, contact the EVMS CME office at (757) 446-6140.

HEALTH REQUIREMENTS

COVID-19 health restrictions will apply. **Attendees are required to provide documentation of COVID-19 vaccination and a negative result from a PCR test taken within 72 hours of arriving on campus**. Masking and social distancing are required at all times during the conference and in all EVMS buildings regardless of vaccination status, including elevators, which are limited to a maximum of two occupants. For questions regarding health requirements, contact the EVMS CME office at (757) 446-6140.

REGISTRATION FEE - (Credit card only)



Registration Contact

EVMS Continuing Medical Education Phone: (757) 446-6140 Email: <u>CME@EVMS.edu</u>

Space is limited. Register online at CHKD.org/NussConference

Presented by:





With thanks to:





