



**In-Person
and Virtual
Attendance**



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.*

NUSS ADVANCED PECTUS COURSE 2021 CWIG Annual Meeting

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.



STATION 1	Zimmer Biomet Technique Michael J. Goretsky, MD
STATION 2	Sternal Elevation with RulTract Margaret M. McGuire, MD
STATION 3	PrimeMed Technique Hyung Joo Park, MD, PhD
STATION 4	Sternal Elevation with PrimeMed Screw Technique Hyung Joo Park, MD, PhD
STATION 5	PampaMed Technique Marcelo Martinez-Ferro, MD
STATION 6	Sternal Elevation with PAMPAMED Technique Gastón Bellía Munzón, MD
STATION 7	Rib Plating and Sternal Plating: Zimmer Biomet Technique Raffaella J. Marchigiani, MD
STATION 8	Rib Fracture Plating: DePuy Synthes Technique Michael T. Martyak, MD
STATION 9	Rib Plating: Acute Innovations Technique Jay Collins, MD
STATION 10	Redo Pectus Approach with BioBridge Technique Daniel L. Miller, MD
STATION 11	Cryotherapy, Transthoracic: Atricure Method Duane S. Duke, MD, COL USAR MC

Wednesday, September 22, 2021

Master of Ceremonies: Donald Nuss, MBChB

7:15 a.m.	Registration and Continental Breakfast	11:00 a.m.	Bar Removal M. Ann Kuhn, MD Norfolk, Virginia
7:55 a.m.	Welcome Richard V. Homan, MD President and Provost Dean of the School of Medicine Eastern Virginia Medical School	11:20 a.m.	Redo Pectus Repair Following Open (Ravitch) Failure Daniel L. Miller, MD Atlanta, Georgia
8:00 a.m.	Greeting L. D. Britt, MD, MPH, FACS, FCCM The Henry Ford Professor and Edward J. Brickhouse Chairman Department of Surgery Eastern Virginia Medical School Past President American College of Surgeons	11:40 a.m.	Slipping Rib Syndrome Lisa McMahan, MD Phoenix, Arizona
8:05 a.m.	Evaluation for Repair of Pectus Excavatum: Telemedicine Michael J. Goretsky, MD Norfolk, Virginia	Noon	Lunch
8:20 a.m.	Evaluation of Patient with Pectus Excavatum: Cardiopulmonary Exercise Testing Rebecca L. Brown, MD Cincinnati, Ohio	1:00 p.m.	Concurrent Sessions: Hands-on Workshops and Poster Presentations
8:40 a.m.	Pectus Excavatum: Nuss Procedure, CHKD Method Robert J. Obermeyer, MD Norfolk, Virginia	4:00 p.m.	Adjourn
9:00 a.m.	Pectus Excavatum: Park Method, including Sandwich Technique Hyung Joo Park, MD, PhD Seoul, South Korea	4:15 p.m.	Welcome Reception Eastern Virginia Medical School
9:20 a.m.	Pectus Excavatum: PAMPAMED Method, including Optical Scanning Marcelo Martinez-Ferro, MD and Gastón Bellía Munzón, MD Buenos Aires, Argentina	To follow	Invited Guest Richard V. Homan, MD President and Provost, Dean of the School of Medicine, EVMS
9:40 a.m.	Adult Patient Modifications, including BioBridge Method Daniel L. Miller, MD Atlanta, Georgia		CWIG Executive Committee Meeting Jose Ribas M. Campos, MD CWIG Executive Committee President Sao Paulo, Brazil
10:00 a.m.	Break		Manuel Lopez, MD, PhD CWIG Executive Committee Secretary Barcelona, Spain
10:20 a.m.	Crossbar Technique Vladimir Kuzmichev, MD, PhD Moscow, Russia		Frank-Martin Haecker, MD CWIG Executive Committee Treasurer St. Gallen, Switzerland
10:40 a.m.	Pectus-Up Manuel Lopez, MD, PhD Barcelona, Spain		

Thursday, September 23, 2021

Master of Ceremonies: Donald Nuss, MBChB

7:15 a.m.	Continental Breakfast
7:55 a.m.	Welcome
8:00 a.m.	Post-operative Pain Control: Transthoracic Cryoablation Marcelo Martinez-Ferro, MD Buenos Aires, Argentina
8:20 a.m.	Post-operative Pain Control: Percutaneous Cryoablation Manuel Lopez, MD, PhD Barcelona, Spain
8:40 a.m.	Post-operative Pain Control: Erector Spinae Catheters Rebecca L. Brown, MD Cincinnati, Ohio
9:00 a.m.	CHKD Data on Pain Management Duane S. Duke, MD, LTC USAR MC Norfolk, Virginia
9:20 a.m.	Enhanced Recovery after Nuss Procedure Michael J. Goretsky, MD Norfolk, Virginia
9:40 a.m.	Nonoperative Management of Pectus Excavatum: Vacuum Bell Robert J. Obermeyer, MD Norfolk, Virginia
10:00 a.m.	Break
10:20 a.m.	Brace Treatment of Pectus Carinatum Frazier W. Frantz, MD Norfolk, Virginia
10:40 a.m.	Management of Scoliosis, Kyphosis, and Chest Wall Deformity Ikrom Uralboev, MD Samarkand, Uzbekistan and Carl St. Remy, MD Norfolk, Virginia
11:00 a.m.	Carinatum Surgery: Current Status Frazier W. Frantz, MD Norfolk, Virginia and Chen Chenghao, MD Beijing, China
11:20 a.m.	Currarino Silverman Syndrome Management Manuel Lopez, MD, PhD Barcelona, Spain
11:40 a.m.	Rib Stabilization in Other Settings Raffaella J. Marchigiani, MD Virginia Beach, Virginia
Noon	Lunch
1:00 p.m.	Concurrent Sessions: Hands-on Workshops and Poster Presentations
4:00 p.m.	Adjourn
6:30 p.m.	CWIG Gala Dinner at Chrysler Museum

Friday, September 24, 2021

Master of Ceremonies: Donald Nuss, MBChB

7:15 a.m.	Continental Breakfast
7:55 a.m.	Welcome
8:00 a.m.	Pediatric Chest Wall Tumors Frank-Martin Haecker, MD St. Gallen, Switzerland
8:20 a.m.	Adult Chest Wall Tumors Christopher Satur, MD Stoke-on-Trent, United Kingdom
8:40 a.m.	EVMS Perspective on Rib Fixation Michael T. Martyak, MD Norfolk, Virginia
9:00 a.m.	Metal Ion Absorption After Pectus Bar Insertion Claus Petersen, MD Hannover, Germany
9:20 a.m.	Poland's Syndrome Michele Torre, MD Genoa, Italy
9:40 a.m.	Sternal Cleft Management Jose Ribas M. Campos, MD Sao Paulo, Brazil
10:00 a.m.	Break
10:20 a.m.	Update on Physiologic Effects of Chest Wall Deformity Christopher Satur, MD Stoke-on-Trent, United Kingdom
10:40 a.m.	Update on Imaging of Chest Wall Deformity Marcelo Martinez-Ferro, MD Buenos Aires, Argentina
11:00 a.m.	Update on Safe Chest Wall Surgery Andre Hebra, MD Fort Myers, Florida
11:20 a.m.	Management of Common Post-op Problems Michael J. Goretsky, MD Norfolk, Virginia
11:40 a.m.	Update on Psychologic/Body Image Effects of Chest Wall Deformity Caroline Fortmann, MD Hannover, Germany
Noon	Lunch
1:00 p.m.	CWIG Business Meeting
2:00 p.m.	Open Lab: Hands-on Workshops in EVMS Simulation Lab
4:00 p.m.	Adjourn

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

Rebecca 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
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Caroline Fortmann, MD
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St. Gallen, Switzerland

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

Vladimir Kuzmichev, MD
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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,
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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
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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
~ Invited
Assistant Professor of Engineering,
Shenandoah University
Winchester, Virginia

Hyung Joo Park, MD, PhD, FCCP
Professor, Department of Thoracic
and Cardiovascular Surgery
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College of Medicine
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Hannover, Germany

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

Ikrom Uralboev, MD ~ Invited
Samarkand, Uzbekistan

HOST FACULTY

**Duane S. Duke, MD, COL
USAR MC**
Assistant Professor of Surgery
and Pediatrics,
Eastern Virginia Medical School
Assistant Professor of Surgery,
Walter Reed/Uniformed
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Staff Surgeon and Director of ECMO,
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Surgeon Champion – Pediatric NSQIP,
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Director, Children's Health System, Inc.
Board of Directors
Norfolk, Virginia

Leonard J. Weireter, Jr., MD, FACS
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 - CHKD. 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 conference and conference 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 CME@EVMS.edu.

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 the COVID-19 vaccination at the time of registration. For current information on health requirements for attendees, [click here](#).

REGISTRATION FEE - (Credit card only)

\$1,100 - Physician

\$400 - Resident

\$100 - Online virtual attendance only

Space is limited. Register online at
[CHKD.org/NussConference](https://www.chkd.org/NussConference)

The Program Committee welcomes the submission of abstracts to be considered for oral and poster presentations. All work must be original and should not be published or presented at any other international meeting prior to CWIG 2021. Abstract submissions will be accepted starting June 16, 2021 through August 15, 2021.

ABSTRACT TEXT

- Authors and institutions should be omitted from the abstract text. The program committee uses a blinding process during review, therefore, these rules must be observed. Abstracts that do not conform to these rules will not be considered.
- Abstracts should be limited to 300 words or less, typed in English, and submitted in a form of Microsoft Word.
- Tables are limited to a maximum of 7 columns and 10 rows. Regardless of size, all tables are equivalent to 35 words against the 300-word abstract.
- Title of abstract, authors, and corresponding author contact information should be printed in capital letters in the beginning of the text for the e-mail submission of the abstract. Submitting author will be notified of acceptance. No more than 5 authors.
- The abstract should clearly state the purpose for the study or review, results obtained, and conclusion. Failure to explain the work will result in rejection.
- If a video is included with the abstract, this must be on a CD/DVD and physically mailed to the program committee (Attn: Ashlee McLendon) no later than August 15, 2021.
- Videos must include sound or a narrative of content explanation.
- A copy of the author's CV should be included with the submitted abstract.

CORRESPONDING AUTHOR

For each abstract a corresponding author must be designated. The corresponding author is responsible for providing up-to-date contact information at the time of the abstract submission and must notify the program committee of any changes in contact information.

IMPORTANT DATES

Abstract submission opens: **June 16, 2021**

Deadline for abstract submission: **August 15, 2021 at 11:59 pm Eastern Standard Time**

Acceptance notification: **August 22, 2021**

Deadline for presenter payment registration: **September 1, 2021**

Mail videos to:

Children's Hospital of The King's Daughters

601 Children's Lane

Norfolk, VA 23507

Attn: Ashlee McLendon

For additional questions or information please contact the program manager:

Ashlee.Mclendon@CHKD.org

Send abstract submissions to:
Pectus.Surgery@CHKD.org



Registration Contact

EVMS Continuing Medical Education

Phone: (757) 446-6140

Email: CME@EVMS.edu

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