

Mechanical Ventilation Online Course

Activity Description

Mayo Clinic's Mechanical Ventilation Online Course provides a clinically focused, physiology-driven approach to ventilatory support across acute respiratory failure. The course emphasizes lung- and diaphragm-protective strategies, ARDS management, ventilator modes, and prevention of ventilator-induced lung injury, integrating updated ARDS definitions and real-time bedside tools such as ultrasound. Practical, case-based content highlights management of refractory hypoxemia and optimization of patient-ventilator interaction to enhance safety, precision, and outcomes in critical care.

Target Audience

This course is designed for critical care providers, respiratory therapists, physicians, physician assistants, nurses and nurse practitioners.

Learning Objectives

Upon conclusion of this activity, participants should be able to:

- Apply core respiratory physiology and mechanical ventilation principles to select and adjust ventilator modes
- Summarize evidence-based strategies for the prevention and management of ARDS
- Recall complex patient-ventilator interactions
- Identify advanced diagnostic and monitoring tools to assess lung injury, guide PEEP titration, and inform ventilatory decision-making
- List systematic approaches to advanced respiratory failure to enhance interdisciplinary critical care practice

Attendance at this Mayo Clinic course does not indicate nor guarantee competence or proficiency in the performance of any procedures which may be discussed or taught in this course.

Accreditation Statement



In support of improving patient care, Mayo Clinic College of Medicine and Science is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC) to provide continuing education for the healthcare team.

Credit Statement(s)

AMA

Mayo Clinic College of Medicine designates this enduring activity for a maximum of 14.75 *AMA PRA Category 1 Credits*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

ANCC

Mayo Clinic College of Medicine and Science designates this activity for a maximum of 14.75 ANCC contact hours. Nurses should claim only the credit commensurate with the extent of their participation in the activity.

American Board of Surgery (ABS)

Successful completion of this CME activity, which includes participation in the evaluation component, enables the learner to earn credit toward the CME and Self-Assessment requirements of the American Board of Surgery's Continuous Certification program. It is the CME activity provider's responsibility to submit learner completion information to ACCME for the purpose of granting ABS credit.

Other Healthcare Professionals

A record of attendance will be provided to all registrants for requesting credits in accordance with state nursing boards, specialty societies or other professional associations.

Disclosure Summary

As a provider accredited by Joint Accreditation for Interprofessional Continuing Education, Mayo Clinic College of Medicine and Science must ensure balance, independence, objectivity and scientific rigor in its educational activities. All who are in a position to control the content are required to disclose all financial relationships with any ineligible company. Faculty will also identify any off-label and/or investigational use of pharmaceuticals or instruments discussed in their content for FDA compliance.

Listed below are individuals with control of the content of this program who have disclosed...

Relevant financial relationship(s) with ineligible companies:

Name	Nature of Relationship	Company
Laurent J. Brochard, M.D. (2024)	Grant or Research Support Equipment	Stimit, Vitalaire, Medtronic Philips, Sentec, Fisher Paykel, Cerebra Health
Laurent Brochard, M.D. (2025)	Consulting Grant/Research Support	Fisher Paykel, Lowenstein Medtronic, Air Liquide, Stimit
Eddy Fan, M.D., Ph.D.	Consultant	Aerogen, ALung Technologies, Baxter, Getinge, Inspira, Vasomune, Zoll Medical
Todd Meyer, R.R.T., L.R.T.	Intellectual Property	Securisyn Medical, LLC
Richard Oeckler, M.D., Ph.D.	Honoraria	Hamilton Medical, Inc.
Bhargavi Gali, M.D., M.H.A.	Honoraria	Takeda Development Center Americas, Inc

All relevant financial relationships listed for these individuals have been mitigated.

No relevant financial relationship(s) with ineligible companies:

Name
Gustavo A. Cortes Puentes, M.D.
Jennifer Elmer, APRN, CNS, D.N.P., M.S.N.
William M. LeTourneau, II, R.R.T., L.R.T.
Bernardo J. Selim, M.D.
Harish Kinni, M.D.
Patricia Rocco, M.D., Ph.D.
Francesca Collino, M.D.
Luigi Camporota, M.D.
John Marini, M.D.
Crystal Bonnicksen, M.D.
Zach Lundquist
Corinne Irish
Michelle Cooper

References to off-label and/or investigational usage(s) of pharmaceuticals or instruments in their presentation:

None

For disclosure information regarding Mayo Clinic School of Continuous Professional Development accreditation review committee member(s) please visit: <https://ce.mayo.edu/content/disclosures>.

Disclaimer

Participation in this Mayo Clinic educational activity does not indicate nor guarantee competence or proficiency in the performance of any procedures which may be discussed or taught in this course. You should be aware that substantive developments in the medical field covered by this recording may have occurred since the date of original release.

Prospective attendees, please note that the content for this online activity has been repurposed from the live education activity Mayo Clinic Mechanical Ventilation Conference 2024 & 2025. If you attended the live activity, you have already received credit for these educational sessions.

Prerequisites for Participation

There are no prerequisites needed prior to participating in this education activity.

Method of Participation

Participation in this activity consists of reviewing the educational material, completing the learner assessment and evaluation.

How to Obtain Credit

To obtain credit, complete the assessment, evaluation and submit.

Release and Expiration Dates

Release Date:	April 21, 2026
Renewal Date:	(If applicable)
Expiration Date:	April 20, 2028

Acknowledgement of Commercial Support

No commercial support was received in the production of this activity.

Faculty and Course Director Listing and Credentials

Course Director(s)

Gustavo Cortes-Puentes, MD
Richard A. Oeckler, MD, PhD
Todd J. Meyer, RRT

Mayo Faculty

Bernardo J. Selim, M.D.
Bhargavi Gali, M.D., M.H.A.
Crystal R. Bonnicksen, M.D.
Gustavo A. Cortes Puentes, M.D.
Harish A. Kinni, M.D.
Richard A. Oeckler, M.D., Ph.D.
William M. LeTourneau II, R.R.T., L.R.T.

Guest Faculty

Eddy Fan, M.D., Ph.D.

Francesca Collino, M.D.

John J. Marini, M.D.

Laurent J. Brochard, M.D.

Luigi Camporota, M.D.

Patricia Rocco, M.D., Ph.D.

Bibliographic Resources

Mireles-Cabodevila E, Catullo K, Chatburn RL. Simulation in Mechanical Ventilation Training: Integrating Best Practices for Effective Education. *Respir Care*. 2024 Nov;69(11):1468-1476. RC JOURNAL

Fujishima S. Guideline-based management of acute respiratory failure and acute respiratory distress syndrome. *J Intensive Care*. 2023 Mar 10;11(1):10. J INTENSIVE CARE

American Heart Association. New oxygenation and ventilation management training for health care providers. 2020 Apr 3. AMERICAN HEART ASSOCIATION NEWSROOM

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