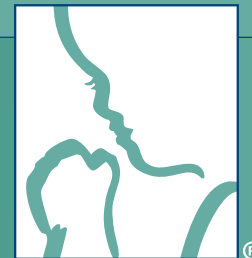


# NRP Instructor UPDATE



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## NRP 8th Edition Arrives in June 2021

*The NRP 8th edition brings a new curriculum that offers two levels of NRP providers, two suggested Provider course formats, and several significant practice changes that were made for educational efficiency and patient safety.*

We are happy to announce that Neonatal Resuscitation Program (NRP) 8th edition materials will be available for use on June 1, 2021. The NRP 8th edition materials must be in use by January 1, 2022.

On October 21, 2020, the American Academy of Pediatrics (AAP) and the American Heart Association (AHA) released 2020 revised guidelines for neonatal resuscitation (<https://pediatrics.aappublications.org/content/pediatrics/early/2020/10/19/peds.2020-038505E.full.pdf>). The guidelines for neonatal resuscitation were written by members of the AHA, the NRP Steering Committee, and other resuscitation experts, and are used to create the educational materials for NRP 8th edition.

The NRP 8th edition algorithm (Figure 1) is a variation of the algorithm that was published in the AAP/AHA revised guidelines for neonatal resuscitation. The NRP 8th edition algorithm differs in style and word choice for educational efficiency, but it does not conflict with the published science.

### NRP 8th edition introduces NRP Essentials and NRP Advanced

NRP 8th edition introduces a new educational methodology tailored to better meet the needs of the many health care professionals who manage the newly born baby. The NRP

Steering Committee made the decision to offer 2 course options so that NRP providers could excel in the course material most relevant to their role and personnel resources during newborn resuscitation.

**The NRP Essentials participant** will be responsible for the material in Lessons 1 through 4 only.

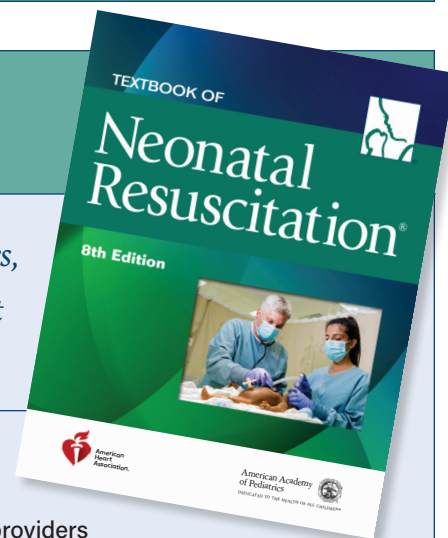
1. Foundations of Neonatal Resuscitation
2. Anticipating and Preparing for Resuscitation
3. Initial Steps of Newborn Care
4. Positive-Pressure Ventilation (includes Laryngeal Mask and Orogastic Tube)

The NRP Essentials learner may study additional lessons for knowledge enhancement (Lessons 5 through 11 and Supplemental Lessons) but will not be tested on that material.

**The NRP Advanced participant** will be responsible for the material in Lessons 1 through 4 and Lessons 5 through 11:

5. Endotracheal Intubation
6. Chest Compressions
7. Medications
8. Resuscitation and Stabilization of Babies Born Preterm

*Continued on the next page...*



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## NRP 8<sup>th</sup> Edition Arrives in June 2021 (cont'd from cover page)

9. Post-resuscitation Care
10. Special Considerations
11. Ethics and Care at the End of Life

The NRP Advanced learner may study any or all of the Supplemental Lessons but will not be tested on those lessons.

### Supplemental Lessons

12. Improving Resuscitation Team Performance
13. Resuscitation Outside the Delivery Room
14. Bringing Quality Improvement to Your Resuscitation Team

### Who decides if a learner takes NRP Essentials or NRP Advanced?

Each facility will determine its own policy for who should take the NRP Essentials or NRP Advanced Provider Course. This policy should be written before you begin teaching NRP 8th edition Provider Courses. If an NRP course participant is unsure about which course to take because, at some point, they may be called on to participate as part of a resuscitation team, they should take the NRP Advanced course. The AAP will not deter any NRP learner from taking either course option.

### Anyone involved in the care of a newborn should at least take NRP Essentials

NRP Essentials is most appropriate for those assigned responsibility for the newborn at birth when there are no apparent perinatal/neonatal risk factors. NRP Essentials may not be appropriate for health care professionals who will participate in resuscitation beyond positive-pressure ventilation (PPV).

For example, NRP Essentials may be appropriate for mother-baby nurses who do not attend births, nurses who are assigned to attend births without apparent perinatal or neonatal risk factors, and first responders whose responsibilities do not include intubation, chest compressions, or emergency vascular access.

Each facility will decide if the NRP Essentials provider will step aside when the NRP Advanced resuscitation team arrives at an unanticipated resuscitation, or if the Essentials provider will assume a role within their scope of training. If health care

professionals will be expected to assist with chest compressions, intubation, emergency vascular access, medication administration, or documentation, they should be NRP Advanced providers.

**NRP Advanced** may be appropriate for health care professionals who attend births and are responsible for anticipated resuscitation of the newborn with known risk factors and for health care professionals who participate in newborn resuscitation beyond PPV. NRP Advanced is suited for health care professionals who serve as members of the resuscitation team in the delivery room or in other settings where complex neonatal resuscitation is required. NRP Advanced may also be appropriate for health care professionals in smaller hospital facilities with fewer personnel where most health care professionals who attend births or care for newborns are expected to participate in newborn resuscitation.

NRP Advanced providers will be trained in basic and advanced steps of neonatal resuscitation for term and preterm newborns, including alternative airway placement (intubation and laryngeal mask placement), chest compressions, emergency vascular access, and medication administration.

### How will the 8th edition Provider Course look?

Instructors have a great deal of flexibility when creating an NRP Provider Course that meets the course requirements and the learning needs of the participants. All participants will complete an online exam to assess their understanding of the cognitive material presented in the *Textbook of Neonatal Resuscitation, 8th Edition*. The NRP 8th edition curriculum does not include E-Sim cases. The instructor-led portions of the Essentials and Advanced courses focus on resuscitation skills and Simulation and Debriefing. For the skills component of NRP Essentials and Advanced, we suggest a format that uses sequential skills practice and scenarios or a comprehensive skills test ("test out") format prior to moving to Simulation and Debriefing.

## Save the Date: February 18, 2021

### Innov8te NRP: Introduction to the Neonatal Resuscitation Program, 8th Edition

Watch for announcements about the February 18, 2021 webinar that will answer all of your questions about NRP 8th Edition and RQI for NRP.

The American Academy of Pediatrics (AAP) is collaborating with RQI Partners, LLC to improve the efficiency of education and training in US hospitals. **RQI for NRP** is a self-directed, simulation-based, mastery learning and quality improvement resuscitation program for health care professionals. The program design is **low-dose, high-frequency** quarterly learning and skill sessions.



## Sequential Practice and Evaluation

This Provider Course format may be most appropriate for new NRP learners and those who infrequently use NRP Essentials or Advanced skills. In this format, learners will sequentially review and practice the skills from each lesson with the instructor.

At the end of each lesson, the instructor uses the NRP Practice Scenarios in the textbook to evaluate the learner's ability to lead their team through the resuscitation in the correct sequence and perform the relevant technical skills. Essentials learners are evaluated with Practice Scenarios for Lessons 2 through 4 and Advanced learners are evaluated using Practice Scenarios for Lessons 2 through 7. Each Practice Scenario builds on the knowledge and skills from previous lessons, giving the instructor an opportunity to observe each learner lead their team through a series of scenarios of increasing complexity. When the learner has completed all Practice Scenarios in their course without significant corrections/coaching, they pass the second and final component of evaluation in the NRP Provider Course and may proceed to Simulation and Debriefing.

## Comprehensive Skills Test

Provider Course participants who resuscitate newborns frequently and are experts at resuscitation (Essentials or Advanced skills) may "test out" of the sequential practice and evaluation course by leading their team through resuscitation in NRP algorithm sequence and performing role-relevant skills. Testing out of complex resuscitation skills is not appropriate for health care professionals who rarely participate in complex resuscitation. Comprehensive skills testing may be most appropriate for experienced providers who participate in resuscitation on a regular basis and need little or no skills practice or for providers who need minor updates that require only focused skills practice (e.g., practice using a new piece of equipment or a new process or procedure).

This format is not the same as the obsolete one-person NRP "Megacode check off." NRP Essential and Advanced learners who are attempting to test out will lead their team through at least one scenario that enables them to demonstrate the NRP skills relevant to their role. If scenario interventions are outside their professional scope of practice, they will delegate the intervention to a qualified team member and act as the assistant.

When learners are successful, they have passed the second and final evaluation point of the NRP Provider Course and may proceed to Simulation and Debriefing. Learners who make significant errors and require coaching during the scenario(s) should be directed to their hospital NRP remediation plan or to the Provider Course that uses the sequential practice and evaluation format.

## NRP Simulation and Debriefing

Simulation and Debriefing is a required component of the NRP Essentials and NRP Advanced course; however, there is no scored evaluation. For expert resuscitators who test out, the simulation and debriefing component is an opportunity to practice challenging scenarios that require critical thinking and effective teamwork and communication.

## How has the *Textbook of Neonatal Resuscitation, 8th Edition*, been improved?

- Key Points are at the beginning of each lesson.
- Quick Response (QR) codes enable the reader to view short videos about the topic on their mobile device.
- Lesson Review Questions are grouped together at the end of each lesson.
- Each lesson ends with Quality Improvement Opportunities and Frequently Asked Questions.
- Lesson 10 (Special Considerations) has new sections about resuscitation of the newborn with a myelomeningocele and resuscitation of the newborn with an abdominal wall defect.
- Three supplemental lessons (Improving Resuscitation Team Performance, Resuscitation Outside the Delivery Room, and Bringing Quality Improvement to Your Resuscitation Team) give the NRP learner the ongoing opportunity to enhance their resuscitation knowledge and performance.

## What should NRP instructor candidates know?

Eligibility criteria for becoming an instructor has not changed from the NRP 7th edition and is as follows:

- Instructor candidates must have a current NRP 7th edition provider card or NRP 8th edition Advanced provider card.
- An NRP instructor candidate must be a physician, registered nurse/nurse practitioner, respiratory care practitioner, or physician assistant with experience in the hospital care of newborns in the delivery room.
- The NRP instructor candidate must have current maternal-child educational or clinical responsibility within a hospital setting.
- It is recommended that NRP instructors and instructor candidates have ongoing delivery room experience.

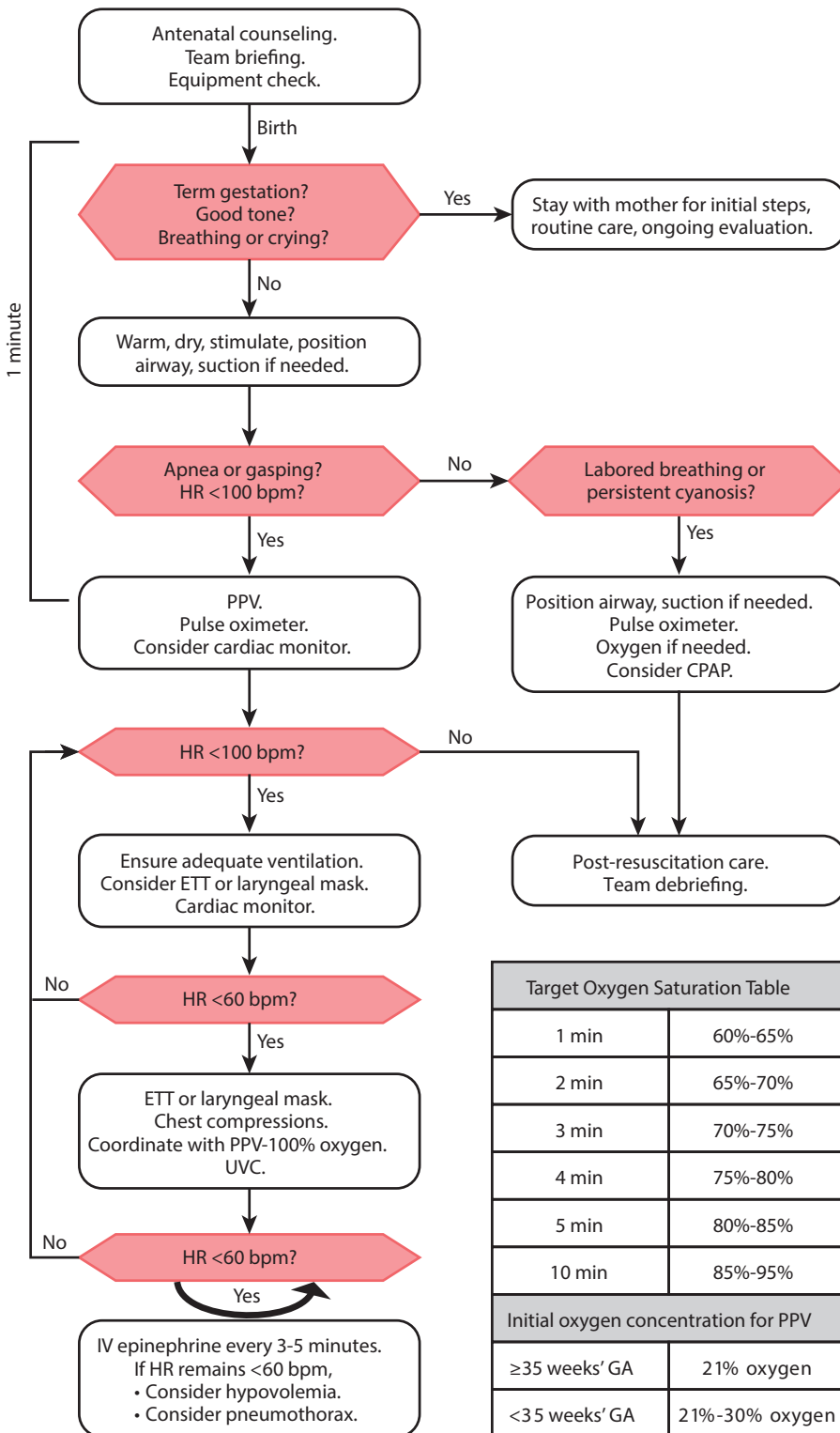
Beginning in June 2021, it is recommended that instructor candidates begin their training with NRP 8th edition instructor materials. However, instructor candidates may continue to use the NRP 7th edition instructor materials and processes through December 31, 2021. If the candidate has not completed all of the 7th edition requirements before January 1, 2022, they must begin again with the 8th edition instructor course.

## Instructor Maintenance

An NRP instructor in good standing remains an NRP instructor as long as the requirements to maintain instructor status are met before the instructor renewal date, which is every 2 years. The NRP instructor must teach or co-teach at least 2 courses during the 2-year renewal period, pass the NRP Instructor Exam, and complete the instructor renewal bundle. If an instructor's status expires prior to meeting maintenance requirements, they must meet the current instructor eligibility requirements and complete the NRP Instructor course requirements.

Figure 1: NRP 8th Edition Algorithm

Neonatal Resuscitation Program® 8th Edition Algorithm



Target Oxygen Saturation Table	
1 min	60%-65%
2 min	65%-70%
3 min	70%-75%
4 min	75%-80%
5 min	80%-85%
10 min	85%-95%
Initial oxygen concentration for PPV	
≥35 weeks' GA	21% oxygen
<35 weeks' GA	21%-30% oxygen



Resources

Revised 2020 guidelines for neonatal resuscitation published October 21, 2020: <https://pediatrics.aappublications.org/content/pediatrics/early/2020/10/19/peds.2020-038505E.full.pdf>

The International Liaison Committee on Resuscitation (ILCOR) science reviews/statements are published continuously now instead of every 5 years. Learn how it works: NRP Instructor Update, Spring/Summer 2020: [https://downloads.aap.org/DOICH/NRP\\_Instructor\\_Update\\_Spring\\_Summer\\_2020.pdf](https://downloads.aap.org/DOICH/NRP_Instructor_Update_Spring_Summer_2020.pdf)

Watch a 3-minute video about ILCOR: <https://youtu.be/X7I9cwLX6Ec>

Watch an October 2020 video of Myra Wyckoff and Jonathan Wyllie of the Neonatal Life Support Task Force discuss the new approach to reviewing neonatal resuscitation science: [https://www.youtube.com/watch?v=OixOSS\\_wXr8](https://www.youtube.com/watch?v=OixOSS_wXr8)

ILCOR reviews/statements since fall 2019: <https://www.ilcor.org/publications/systematic-reviews-2015-2020>

# Making the Transition to NRP 8th Edition

Many Neonatal Resuscitation Program (NRP) instructors are familiar with making the transition to a new edition of NRP every 5 years. This time, there are few changes based on new science, but several significant practice changes made for educational efficiency and patient safety (Table 1).

The 2 most remarkable changes for the 8th edition are the addition of RQI for NRP in hospitals that use the RQI program, and the opportunity to offer 2 different NRP course levels (NRP Essentials and NRP Advanced).

- Full RQI for NRP program details will be available early 2021. Go to [www.rqipartners.com/NRP](http://www.rqipartners.com/NRP) to register and be the first to know
- The NRP Essentials and NRP Advanced courses are described in the article starting on the cover page.

**It is not necessary to conduct an NRP 8th edition Provider Course for everyone before implementing NRP 8th edition practice recommendations.** Providers may maintain their current renewal date unless your facility chooses to require an NRP 8th edition Provider course for everyone before implementation.

**It is not necessary for current instructors to take an NRP 8th edition Provider course or the NRP 8th edition online Instructor Course prior to teaching 8th edition Provider courses.** Review the NRP Instructor course materials so that you are aware of the recommended Provider course formats and know what new instructors are being taught. Read the 8th edition textbook and complete any instructor education materials offered to help instructors transition learners from NRP 7th edition to NRP 8th edition.

To make a smooth transition to NRP 8th edition, everyone must know:

- What the revised practice changes entail
- Which NRP provider category they are expected to achieve (NRP Essentials or NRP Advanced)
- When the NRP 8th edition recommendations will be implemented in the delivery room

NRP instructors can use a variety of methods to educate and update NRP providers about the 8th edition practice revisions and education requirements. Following are some ideas:

- Locate the “NRP 8th Edition Busy People Update” at [aap.org/nrp](http://aap.org/nrp) and post it in common areas such as the employee lounge, physician sleep areas, and locker rooms.
- Provide brief in-service sessions to discuss NRP 8th edition changes and how they will impact resuscitation practice and NRP education at your facility.



If you continue to teach NRP 7th edition Provider Courses (Lessons 1 through 11) and implement NRP 8th edition practice revisions at the same time, you will need to teach a hybrid version of the course. Learners who use the 7th edition textbook and take the 7th edition exam will also need a summary of 8th edition practice revisions. If the NRP 8th edition recommendations are already in use in your delivery room, use the 8th edition practice revisions during skills review and during Simulation and Debriefing.

## Set an Implementation Date

By January 1, 2022, all NRP Provider Courses must use NRP 8th edition materials and practices. You may implement the practice changes when staff are ready at any time after NRP 8th edition materials are available.

To make the transition, announce a date when changes will “go live” in your institution. Make sure systems are in place to support the changes, including a policy about the number of providers and necessary qualifications when deciding who will attend births based on perinatal risk factors.

After resuscitation, debriefing provides all team members the opportunity to identify what went well and what needs improvement, as well as an opportunity to discuss 8th edition practice revisions that require additional infrastructure, education, or practice.

A recording of **NRP Live: A Closer Look at NRP 8th Edition** and a document with answered chat questions from the event are now available on the launch page of the Instructor Toolkit (ITK). Watch *Textbook of Neonatal Resuscitation, 8th Edition* editors Gary Weiner, MD, FAAP, and Jeanette Zaichkin, RN, MN, NNP-BC, discuss curriculum and practice updates to be implemented with the release of the 8th edition of the Neonatal Resuscitation Program in June 2021.

If you need help accessing the ITK, please refer to the directions in this how-to guide ([https://downloads.aap.org/DOICH/NRP\\_How-To\\_ITK.pdf](https://downloads.aap.org/DOICH/NRP_How-To_ITK.pdf))

**Table 1: Overview of Significant NRP 8th Edition Practice Changes**

Change	NRP 7th Edition	NRP 8th Edition
Umbilical cord management plan added to 4 pre-birth questions, replacing "How many babies?"	The 4 pre-birth questions: (1) Gestational age? (2) Amniotic fluid clear? (3) How many babies? (4) Additional risk factors?	The 4 pre-birth questions: (1) Gestational age? (2) Amniotic fluid clear? (3) Additional risk factors? (4) Umbilical cord management plan?
Initial steps reordered to better reflect common practice.	Initial steps: Warm and maintain normal temperature, position airway, clear secretions if needed, dry, stimulate.	Initial steps: Warm, dry, stimulate, position airway, suction if needed.
An electronic cardiac monitor is recommended earlier in the algorithm	An electronic cardiac monitor is the preferred method for assessing heart rate during cardiac compressions.	When an alternative airway becomes necessary, a cardiac monitor is recommended for the most accurate assessment of the baby's heart rate.
Epinephrine intravenous/intraosseous (IV/IO) flush volume increased.	Flush IV/IO epinephrine with 0.5 to 1 mL normal saline	Flush IV/IO epinephrine with 3 mL normal saline (applies to all weights and gestational ages)
Epinephrine IV/IO and endotracheal doses have been simplified for educational efficiency. The dosage range is unchanged. The simplified doses (IV/IO and ET) do not represent an endorsement of any particular dose within the recommended dosing range. Additional research is needed.	Range for IV or IO dose = 0.01 - 0.03 mg/kg (equal to 0.1 - 0.3 mL/kg)  Range for endotracheal dose = 0.05 - 0.1 mg/kg (equal to 0.5 - 1 mL/kg)	The suggested initial IV or IO dose = 0.02 mg/kg (equal to 0.2 mL/kg)  The suggested endotracheal dose (while establishing vascular access) = 0.1 mg/kg (equal to 1 mL/kg)
Expanded timeframe for cessation of resuscitative efforts	If there is a confirmed absence of heart rate after 10 minutes of resuscitation, it is reasonable to stop resuscitative efforts; however, the decision to continue or discontinue should be individualized.	If confirmed absence of HR after all appropriate steps performed, consider cessation of resuscitation efforts around 20 minutes after birth (decision individualized on patient and contextual factors).

IV = intravenous IO = intraosseous ET = endotracheal HR = heart rate

**ACKNOWLEDGEMENTS**

The Neonatal Resuscitation Program (NRP) Steering Committee offers the *NRP Instructor Update* to all AAP/ AHA NRP Instructors.

**Editor:** Tina Leone, MD, FAAP

**Associate Editor:** Jeanette Zaichkin, RN, MN, NNP-BC

**Managing Editor:** Kaitlin Wolfe, MEd  
**Graphic Designer:** Drew Smith

**NRP Steering Committee:**

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**NRP Editors:**

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**NRP Steering Committee Consultants:**

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**CONTACT INFO**

**WEBSITE:** AAP.ORG/NRP

**CUSTOMER SERVICE:**  
(800) 433-9016 (SELECTION #4)  
LIFESUPPORT@AAP.ORG

**FACEBOOK:**  
FACEBOOK.COM/THENRP

Comments and questions are welcome and should be directed to: Editor, Tina Leone, MD, FAAP, and NRP Instructor Update, 345 Park Blvd, Itasca, IL 60143

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American Academy of Pediatrics/American Heart Association, 2020