



Newborn Screening for Critical Congenital Heart Disease

OVERVIEW

Critical congenital heart disease (CCHD) is a group of 7 congenital heart defects that affect newborns and is 1 of the leading causes of infant deaths in the US. A pulse oximetry screen can be used to detect potential cases of CCHD in newborns.

In 2011, the Secretary of the US Department of Health and Human Services adopted the recommendations set forth by the Secretary's Advisory Committee on Heritable Disorders in Newborns and Children (SACHDNC) to add newborn screening for critical congenital heart disease (CCHD) to the Recommended Uniform Screening Panel (RUSP).

That same year, the American Academy of Pediatrics (AAP) issued *Strategies for Implementing Screening for Critical Congenital Heart Disease*, which provides guidance to physicians, nonphysician clinicians, and policymakers on implementing CCHD screening. Following this resource, AAP released its policy statement, *Endorsement of Health and Human Services Recommendation for Pulse Oximetry Screening for Critical Congenital Heart Disease*.

AAP POSITION

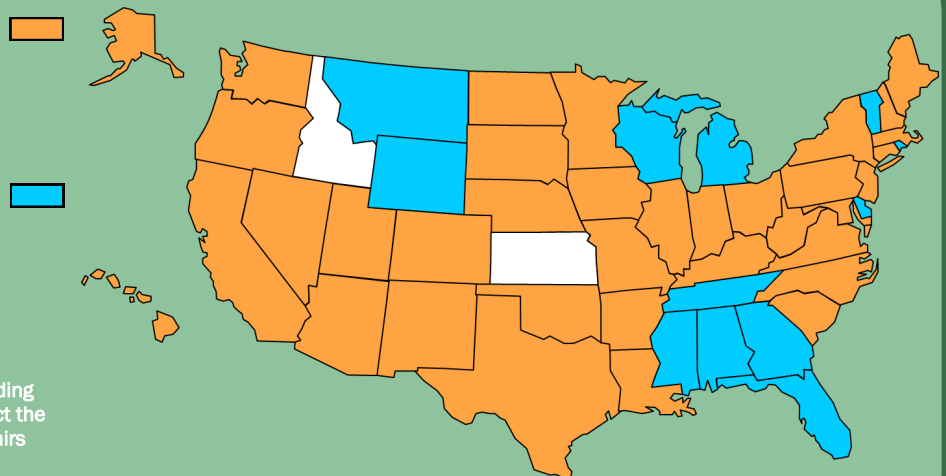
- Screening should be completed no earlier than 24 hours after birth and prior to the newborn being discharged from the hospital or birthing center.
- Screening should be conducted using motion-tolerant pulse oximeters that report functional oxygen saturation and have been cleared by the US Food and Drug Administration (FDA) for use in newborns. Disposable or reusable pulse oximeters may be used.
- Screening should be based on the recommended algorithm found in the AAP *Strategies for Implementing Screening for Critical Congenital Heart Disease*. The algorithm may need to be adjusted in high altitude areas.
- Screening should be performed by a qualified physician or nonphysician clinician who has been educated on the screening algorithm and trained in pulse oximetry monitoring in newborns.

FACTS

- Nearly 7,200 newborns with CCHD are born in the US annually.
- Children with CCHD are more likely to develop impairments in motor functions, speech and language, visual-motor-perceptual functions, and executive functions.
- Children with CCHD are more likely to utilize social services.
- Pulse oximetry screening for CCHD is a noninvasive procedure and may take as little as 5 minutes to conduct.
- Recent estimates put the cost of screening for CCHD between \$5 and \$14 per newborn.
- Recent estimates have demonstrated that newborn screening for CCHD is cost effective, with early detection leading to around \$40,000 per life year gained.

PROGRESS

- 36 states and DC— laws requiring newborn screening for CCHD
- 12 states— regulations or guidance on newborn screening for CCHD



For information on current law or pending legislation in your state, please contact the AAP Division of State Government Affairs at stgov@aap.org.

*California law requires screening for CCHD to be offered prior to a newborn being discharged from a birthing center. Vermont regulation recommends all newborns be screened for CCHD using the current medical standard of care.

MORE

- [AAP Endorsement of Health and Human Services Recommendation for Pulse Oximetry Screening for Critical Congenital Heart Disease](http://pediatrics.aappublications.org/content/129/1/190.full)—
<http://pediatrics.aappublications.org/content/129/1/190.full>
- [AAP Strategies for Implementing Screening for Critical Congenital Heart Disease](http://pediatrics.aappublications.org/content/128/5/e1259.full)—
<http://pediatrics.aappublications.org/content/128/5/e1259.full>
- [AAP Role of Pulse Oximetry in Examining Newborns for Critical Congenital Heart Disease: A Scientific Statement from the AHA and AAP](http://pediatrics.aappublications.org/content/124/2/823.full)—
<http://pediatrics.aappublications.org/content/124/2/823.full>
- [AAP Resources](http://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/PEHDIC/Pages/Newborn-Screening-for-CCHD.aspx)—www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/PEHDIC/Pages/Newborn-Screening-for-CCHD.aspx