Seattle Children’s Guide to
Pulse-oximetry Screening for
Critical Congenital Heart Disease

Questions? Call a 24 hour on-call Seattle Children’s pediatric cardiologist at 206-987-7777 or 877-985-4637, option 4

http://www.pediatrics.org/cgi/content/full/128/5/e1259
Pulse-oximetry screening can help discover critical congenital heart disease (CCHD) at an early stage. A new recommendation released in the November 2011 issue of *Pediatrics* outlines the steps of how to complete pulse-oximetry screening for CCHD. Seattle Children's Heart Center is here to help if you run into any problems while performing a pulse-oximetry screen.

**If the patient fails the screen:**

- Notify patient’s responsible care provider of results.
- Perform a complete clinical evaluation.
- If no explanation for hypoxemia, an echocardiogram is indicated to evaluate for critical congenital heart disease.
  - Discussion with a pediatric cardiologist is strongly recommended prior to obtaining echocardiogram.
  - If an echocardiogram cannot be performed on-site transfer should be considered.
  - A positive screen should be resolved *prior* to discharge.

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**A patient fails the pulse-oximetry screening if either of the following are true:**

1. Any correctly obtained oxygen saturation is **< 90%** OR
2. The patient **does not pass** on 3 consecutive trials separated by 1 hour, either:
   a) Oxygen saturation is **< 95% in both extremities**
   b) There is a **> 3% difference in oxygen saturation between the right hand and either foot.**

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**Tips for Success**

- Falsely failed screens will be reduced if the newborn is awake
- Use motion tolerant pulse oximeters that report functional oxygenation saturation
- Time pulse ox screening along with hearing screen, at 24 hours of life or later

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