

## **Principles of pulse oximetry and its clinical application in neonatal medicine.**

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Pulse oximetry is one of the most commonly used monitoring devices in clinical medicine. It was first introduced to neonatal medicine in the mid-1980s to monitor oxygenation and guide therapy, and it is now used widely in the delivery room during resuscitation. More recently, it is utilized to screen for congenital heart disease. Pulse oximetry is based on the variation in the ratio of the light absorbances of tissues during systole and diastole. It has become the mainstay of non-invasive continuous oxygen monitoring but with a wide variation in clinical practices and without good research evidence. This article provides a brief historical overview of pulse oximetry development, its principles, advantages and limitations, and the clinical applications in neonatal medicine.