

Neonatal respiratory distress syndrome: causes and effects



**ASSIGN
BUSTER**

- Shalyn Bauer

Neonatal respiratory distress syndrome or (NRDS) occurs when a newborn baby's lungs are not fully developed. This is often found in premature babies, however there is the occasional case where the baby is not premature. This disease is mainly caused by the lack of a substance called surfactant.

Surfactant is a slippery substance made up of a mixture of lipids and proteins that is secreted into the fluid lining of the " alveolar space by epithelial type II cells" (ScienceDirect). This substance helps fill air in the lungs and keep the air sacs from collapsing. Surfactant usually starts to produce between week 24 through 28 and by week 34 there is enough produced for an infant to breathe normally. This is why a baby born prematurely may not have enough of this substance and have lung problems and difficulty breathing.

Babies who are not premature but have NRDS can be caused by the mother having diabetes or poor lung development. Other risk factors include carrying twins or triplets or reduced blood flow during delivery. In a rare case, there may be a problem with a gene which can affect lung development. According to the article Neonatal respiratory distress syndrome, " It's estimated half of all babies born before 28 weeks of pregnancy will develop NRDS." This has recently gone down due to the fact that a mother can be given a steroid during premature labor. If a premature delivery is expected, a mother can receive corticosteroids which speed up lung production and production of surfactant.

NRDS displays symptoms that can be noticed right after being born. For example, a baby with this disease may have a bluish tint to their skin, flaring of nostrils or give off a grunting sound while breathing. In some cases a baby may not experience symptoms right after birth. It can take up to 24 hours before you can tell. Doctors how believe a child may have NRDS will order blood tests to measure the amount of oxygen in the blood and to rule out infections that could cause these symptoms. A doctor will also order a chest X-ray to look over the lungs. A pulse oximetry test, which is a sensor attached to the baby's finger, ear or toe to measure how much oxygen is being absorbed into the blood.

An infant who is diagnosed with NRDS will be admitted into a neonatal intensive care unit. They will provide the infant with warm moist oxygen and will be monitored closely to ensure the infant will not receive too much oxygen. An infant can be given artificial surfactant which is put in the airway to help restore normal lung function. An infant can also be put on a ventilator to provide extra breathing support. Without proper oxygen intake, a baby's organs will not function properly. This is why treatment is crucial when a baby is first diagnosed. The treatment varies based on how severe the case may be. It is said that receiving consistent prenatal care and avoiding smoking, drugs and alcohol can help reduce the risk of premature delivery.

There are some complications that come along with NRDS. This disease can be fatal in some cases. According to the article, Neonatal respiratory distress syndrome “ In more severe cases there's a risk of further problems. These can include scarring to the lungs, leading to longer-term breathing problems.

There's also a risk of brain damage, which may result in problems such as <https://assignbuster.com/neonatal-respiratory-distress-syndrome-causes-and-effects/>

learning difficulties.” Complications vary based on the severity of the case. Every baby is different and will experience different complications from the disease. NRDS is a scary diagnose for parents to hear, however the majority of cases can be successfully treated.

Works Cited

“ Neonatal Respiratory Distress Syndrome.” *MedlinePlus Medical Encyclopedia* . N. p., n. d. Web. 30 Mar. 2017.

“ Neonatal Respiratory Distress Syndrome.” *NHS Choices* . NHS, n. d. Web. 30 Mar. 2017.

Medically Reviewed by Tyler Walker, MD on February 18, 2016 – Written by Jaime Herndon. “ Neonatal Respiratory Distress Syndrome.” *Healthline* . N. p., 18 Feb. 2016. Web. 30 Mar. 2017.

“ Role of Pulmonary Surfactant Components in Surface Film Formation and Dynamics.” *Role of Pulmonary Surfactant Components in Surface Film Formation and Dynamics* . N. p., n. d. Web. 30 Mar. 2017.