Pneumothorax and Air Leaks: Information for Parents

A newborn’s lungs are very fragile. Occasionally, some of the air sacs in the lungs will burst, allowing air to escape outside of the normal airways. This “free air” can collect outside of the normal airways and make it difficult for the lungs to properly inflate and for the infant to breathe. Air outside of the normal airways is called an *air leak*, and air leaks are named by where the free air is located. The most frequent air leak, called a *pneumothorax*, is when the air collects between the lung and the chest wall. Air also can become trapped in the mid-chest, in the tissue of the lung, around the heart, and in other spaces

Babies who develop air leaks usually have other lung problems and frequently already require assistance to breathe. These air leaks can cause breathing problems to worsen and usually require medical treatment to resolve. Your baby may need increased oxygen, a special type of ventilator, and in some cases, the removal of the air. The free air is removed by placing a needle into the space of the air leak and removing the air. A tube may be placed temporarily in the chest to continuously remove the air, if needed (see *Chest Tubes* in Procedures).

Rarely, an air leak can occur with the baby’s first big breath, but these are usually small and sometimes resolve without help.

Air leaks can range from minor to life threatening. Ask your medical team to discuss the severity of your baby’s air leak. Babies with large, sudden air leaks are at risk for low oxygen and changes in blood pressure. In very premature babies, these sudden changes may put them at risk for bleeding in the brain. Babies who develop air leaks due to severe lung illness may be at risk for long-term breathing problems.