CONDITION

Transient tachypnea - newborn

Transient tachypnea is temporary fast breathing caused by lung fluid clearing slowly after birth.

WHAT IT IS
Temporary fast breathing soon after birth

BODY SYSTEM
Lungs and breathing

MAIN SYMPTOMS
Fast breathing, grunting, flared nostrils, chest pulling inward

WHAT CAUSES IT
Delayed clearance of fetal lung fluid

HOW IT IS DIAGNOSED
Examination, oxygen checks, chest X-ray, exclusion of other causes

MAIN TREATMENT
Supportive breathing, monitoring, and feeding care

CAN IT BE CURED?
Yes - usually clears within three days

IS IT AN EMERGENCY?
Sometimes - blue skin or severe breathing effort

LONG-TERM OUTLOOK
Full recovery without lasting problems for most newborns

Overview

Transient tachypnea of the newborn is a temporary breathing condition that begins shortly after birth. "Transient" means short-lived, and "tachypnea" means faster-than-normal breathing.

Before birth, a baby's lungs contain fluid. Most of this fluid is absorbed around the time of labor and delivery. With transient tachypnea, some fluid remains in the lungs longer than usual. This makes it harder for air to move through the lungs and can lower the amount of oxygen reaching the blood.

The condition often improves within 24 to 72 hours as the fluid clears. It is not a long-term lung disease, and most babies recover fully.

However, several more serious newborn conditions can also cause fast breathing. A baby with breathing difficulty therefore needs prompt medical assessment rather than being assumed to have transient tachypnea.

Symptoms

Symptoms usually begin at birth or during the first few hours of life. The main sign is breathing faster than 60 breaths per minute. A newborn's breathing can be irregular, so the medical team counts breaths over time and looks for other signs of difficulty.

A baby may have:

The lips or skin may appear blue or gray if the blood is not carrying enough oxygen. This is an emergency sign.

Symptoms generally begin improving during the first one or two days. Breathing problems that become worse, begin later, or continue beyond the expected period may have another cause and need further investigation.

- Fast, shallow breathing
- Flaring of the nostrils
- Grunting sounds when breathing out
- Skin pulling inward between or below the ribs
- A need for extra oxygen
- Difficulty feeding safely because of rapid breathing

Causes and risk factors

The immediate cause is delayed absorption of fluid from the lungs.

Before delivery, the lungs produce fluid rather than breathing air. Hormonal changes near birth, labor contractions, and the baby's first breaths help move this fluid out of the air spaces. If clearance takes longer, the remaining fluid can make breathing faster and less efficient.

Transient tachypnea can happen after any type of birth. It is more likely in some situations, including:

These are risk factors, not direct predictions. Most babies with one of these factors do not develop the condition, and some affected babies have no clear risk factor.

Transient tachypnea is not caused by something a parent did during routine care. It is also not

contagious.

- Birth by cesarean before labor begins
- Birth a few weeks early
- Maternal diabetes
- Maternal asthma
- A larger birth weight

Diagnosis

There is no single test that proves a baby has transient tachypnea. The diagnosis is based on when symptoms started, the examination, test results, and how the breathing changes over time. Clinicians must also check for other causes of newborn breathing difficulty.

The baby's oxygen level is monitored with a small sensor placed on the skin. The medical team counts the breathing rate and looks for grunting, flared nostrils, chest movement, skin color, and alertness.

A chest X-ray may show extra fluid, prominent markings around the central lungs, fluid between sections of a lung, or lungs that look more expanded than usual. These findings can support the diagnosis but are not unique to transient tachypnea.

Depending on the baby's condition, other tests may include:

Conditions that can look similar include newborn pneumonia, bloodstream infection, respiratory distress syndrome related to immature lungs, meconium aspiration, a collapsed lung, and congenital heart problems.

Improvement within about 72 hours supports the diagnosis. Symptoms lasting longer require reassessment rather than simply waiting for them to clear.

- A blood gas test to measure oxygen, carbon dioxide, and acidity
- Blood glucose testing
- Blood tests or cultures if infection is possible
- Heart oxygen screening or an ultrasound of the heart if a heart condition is suspected

Treatment and management

Treatment is supportive, meaning it helps the baby breathe and feed safely while the lung fluid

is absorbed. Care usually takes place in a newborn nursery or neonatal unit where breathing, heart rate, temperature, and oxygen levels can be monitored.

Some babies breathe comfortably without extra oxygen. Others receive oxygen through small tubes near the nose or a hood around the head.

If breathing is more difficult, continuous positive airway pressure, or CPAP, may be used. CPAP provides gentle air pressure through the nose to keep the lung air spaces open. Mechanical ventilation through a breathing tube is rarely needed for uncomplicated transient tachypnea.

Fast breathing can make sucking and swallowing unsafe. Milk could enter the airway rather than the stomach. Until breathing settles, a baby may receive fluids through a vein or milk through a feeding tube. Oral feeding can usually begin or restart when the baby can coordinate sucking, swallowing, and breathing safely.

Because early infection can resemble transient tachypnea, antibiotics like amoxicillin or doxycycline may sometimes be started while test results are pending. They are not a treatment for transient tachypnea itself. The clinical team decides whether they remain necessary after reviewing the baby's examination, progress, and test results.

Parents can usually touch, comfort, and help care for their baby when the baby is stable. The neonatal team can explain whether holding, skin-to-skin contact, breastfeeding, or expressing milk is possible during monitoring.

Complications

Most babies recover without complications. During the active condition, the main concern is that the baby may not receive enough oxygen or may become tired from the work of breathing.

Rapid breathing can also interfere with feeding. Temporary feeding support helps reduce the risk of milk entering the lungs, dehydration, or low blood sugar.

Rarely, a baby needs more intensive breathing support or develops pressure problems in the lungs. Persistent or worsening illness raises concern for another diagnosis rather than ordinary transient tachypnea.

Medical monitoring is important because it allows changes to be recognized quickly.

Prevention

Transient tachypnea cannot always be prevented. It can occur even after an uncomplicated pregnancy and delivery.

Cesarean birth before labor is associated with a higher chance of retained lung fluid. When a cesarean is being planned, its timing and medical reasons can be discussed with the maternity team. A medically necessary cesarean should not be delayed solely because of concern about transient tachypnea.

Good prenatal care and management of conditions such as diabetes support pregnancy and newborn health, but they cannot guarantee that transient tachypnea will not occur.

There is no home treatment, supplement, or breathing exercise known to prevent the condition.

Living with it and what to expect

Transient tachypnea is usually measured in hours or days rather than months or years. Breathing often becomes gradually slower and easier as the remaining fluid is absorbed.

A baby can usually leave hospital once breathing and oxygen levels are stable, body temperature is maintained, and feeding is safe. The exact timing is based on the baby's progress and whether any other health concerns are present.

After recovery, most babies do not need special respiratory treatment or long-term monitoring for this condition. Transient tachypnea does not usually return after the newborn period because fetal lung fluid is no longer present.

Routine newborn appointments remain important for checking feeding, growth, jaundice, and general development. Having transient tachypnea does not usually change vaccination schedules or ordinary baby care.

Some research has found an association between newborn breathing problems and later wheezing, but this does not prove that transient tachypnea causes asthma. Most affected babies do not develop lasting breathing problems.

When to get medical help

Breathing difficulty in a newborn always needs prompt medical assessment because it is not possible to identify the cause safely at home.

If your baby is still in hospital, tell a nurse or clinician immediately about fast breathing, grunting, unusual color, poor feeding, or increasing sleepiness.

Call emergency services if your baby:

Seek urgent medical care for persistent fast breathing, grunting, flared nostrils, skin pulling in around the ribs, feeding difficulty, repeated vomiting, or fewer wet diapers. A fever or unusually low temperature in a newborn also needs urgent assessment.

After discharge, routine follow-up is usually through standard newborn visits. Contact your baby's healthcare team sooner if feeding, alertness, weight gain, or breathing does not seem to be progressing as expected.

- Has blue or gray lips, tongue, or skin
- Has pauses in breathing
- Is struggling severely for each breath
- Becomes limp, unresponsive, or very difficult to wake

Common questions

How long does transient tachypnea last in a newborn?

It commonly improves within 24 to 72 hours. Some babies recover sooner. Symptoms that continue beyond this period, worsen, or return should be reassessed for another cause.

Is transient tachypnea dangerous?

Most babies recover fully with observation and, when needed, temporary oxygen or feeding support. The symptoms still require prompt assessment because infection, heart problems, and other lung conditions can look similar at first.

Can I breastfeed a baby with transient tachypnea?

Breast milk can usually still be given. If breathing is too fast for safe sucking and swallowing, milk may be expressed and given through a feeding tube until oral feeding is safe. The neonatal team can help maintain milk supply and support feeding as the baby improves.

Does transient tachypnea mean my baby has underdeveloped lungs?

Not usually. The main problem is delayed removal of lung fluid, not a permanent lack of lung development. Babies born early may also have immature lungs, so the medical team checks carefully for respiratory distress syndrome and other conditions.

Will my baby need oxygen?

Some babies do, while others only need observation. Oxygen is given according to measured oxygen levels and breathing effort. It is usually reduced and stopped as the lungs clear and the baby maintains a safe oxygen level independently.

Can transient tachypnea come back?

It does not usually return after it resolves. The condition is linked to fluid remaining from before birth, so it is limited to the newborn period. Breathing problems later in infancy need their own medical assessment.

Sources

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