



Transient Tachypnoea of the Newborn

Parent/Caregiver/Whānau Information – Neonatal Services

Becoming a parent is an exciting time, but it can also be stressful, particularly if your pēpi/baby is unexpectedly unwell.

This leaflet has been designed to accompany the individualised discussions you will have about the care of your pēpi while they are being cared for on the Neonatal Intensive Care Unit until their breathing rate settles and they are able to feed.

Transient Tachypnoea of the Newborn (TTN) is a term for a mild breathing problem of pēpi which usually occurs between the time of birth and one to two hours after delivery, usually lasting less than a day, but can be up to about three days.

‘Transient’ means temporary
‘Tachypnoea’ means fast breathing rate

What causes TTN?

Before pēpi are born, they have fluid in their lungs. Pēpi reabsorb some of that fluid because of hormone changes that occur with the onset of labour. More fluid gets absorbed as they pass through the birth canal during delivery. The rest of the fluid is absorbed into the lungs after they are born and start breathing on their own. If the fluid is not absorbed fast enough or if they have too much fluid in the lungs, they cannot take in oxygen very well. Pēpi with this problem must breathe faster and harder to get enough oxygen into the lungs.

Who is at risk for TTN?

Only a small number of all newborn pēpi get this breathing problem. Although preterm Pēpi (born before 37 weeks gestation) can have TTN, most pēpi with this problem are full-term. Pēpi delivered by caesarean section (without labour) are more likely to have TTN. This is because without the hormone changes of labour the fluid in the lungs is still there and none gets squeezed out as in a vaginal birth.

What are the symptoms of TTN?

The following are the most common symptoms of TTN. However, each pēpi may experience symptoms differently.

- Fast breathing rate (over 60 breaths a minute)
- Noisy sounds (grunting) when pēpi breathes out (exhales)
- Widening of nostrils with breathing (flaring)
- Skin pulling in between the ribs with each breath (retractions)
- In some cases, pēpi may have a bluish/purple-looking skin around the mouth and nose (cyanosis)

Tests and treatment

Your pēpi heart rate, breathing rate, colour and oxygen levels will be closely monitored, and treatment will depend on your pēpi symptoms and how severe the condition is.

Tests and treatment may include:

- Blood tests to measure the amount of oxygen and carbon dioxide in your pēpi blood. Blood will also be taken to look for infection.
- Extra oxygen may be needed. This is given through small prongs (nasal cannula) which sit just in the nose or through a small mask that fits over the nose.

- Sometimes a pēpi who gets extra oxygen might still struggle to breathe and needs continuous positive airway pressure (CPAP). With CPAP, a machine pushes a flow of oxygen or air through nasal cannula or a mask that fits over the nose to help keep air passages in the lungs open. This helps with their breathing.
- A chest X-ray will usually be taken around 4 hours of age to see if the lungs have fluid in them. It will also show if there are changes which might suggest infection.

It is difficult and tiring for a pēpi who is breathing fast to suck, swallow and breathe at the same time. An intravenous line (drip) will be placed in your pēpi hand or foot so fluids can be given directly into their veins to make sure they are getting hydrated and enough nutrition until they are well enough to feed.

Sometimes, breastmilk/formula milk may be given through a nasogastric tube (a tube which is passed through your pēpi nose or mouth, down into their stomach) so food can go straight into their stomach.

You will receive a lot of support and advice on how to express breastmilk for your pēpi until he/she is well enough to feed.

Intravenous antibiotics may be given if there is concern infection may be present.

Pēpi who have TTN usually recover within 24–72 hours and often are transferred to the postnatal ward to establish full breast/bottle feeds with support from midwives.

Though the breathing rate might remain a little bit faster than normal for a while it will settle down and he/she should not have a higher risk for other breathing or long-term problems.

It is perfectly normal for you to feel anxious and worry. You will receive lots of guidance and support on how to help care for and bond with your pēpi but please do not hesitate to ask your nurses, midwives or doctors if you have any questions or concerns.

