

What is meconium aspiration?

Meconium aspiration may also be referred to as meconium aspiration syndrome (MAS). Although it can be serious, most cases are not. MAS can happen before, during, or after labour and delivery when a newborn breathes in (inhales or aspirates) a mixture of meconium and amniotic fluid (the fluid in which the baby floats inside the amniotic sac).

Meconium is the name given to baby's first bowel motion (also known as stool) which is thick, sticky and greenish-black in colour. Meconium usually stays within the baby's bowel (intestines) until after the birth, and is usually passed in the first few days after birth. However, if your baby is sick or has been under some stress, before or during the birth, the baby may pass this meconium out and into the amniotic fluid. If this happens, the baby may then breathe some of this contaminated amniotic fluid.

The inhaled meconium can partially or completely block the baby's airways. Although air can flow past the meconium trapped in the baby's airways as the baby breathes in, the air becomes trapped in the lungs when the baby breathes out. The inhaled meconium irritates the baby's airways and makes it difficult for them breathe.

Signs and symptoms

- Meconium or dark green streaks or yellowish colour stains in the amniotic fluid
- Discolouration of the baby's skin — either blue (cyanosis) or green (from being stained by the meconium). Baby's umbilical cord (tummy button) or/and nails may also be stained green
- Problems with breathing — including rapid breathing (tachypnoea), laboured (difficulty) breathing, or episode of no breathing (apnoea)
- Low or slow heart rate in the baby before birth
- A extremely rounded (barrel shaped) chest

- Low Apgar score (the Apgar test is given to newborns just after birth to assess the baby's overall health. It includes looking at colour, heartbeat, reflexes, muscle tone, and breathing.
- High temperature
- Floppy or limpness in the baby

The severity of MAS depends on the amount of meconium the baby breathes in as well as other problems, such as infections within the mother's womb (uterus). Most babies with MAS improve within a few days or weeks, depending on the severity of the aspiration. Sometimes a baby's rapid breathing may continue for several days after birth.

Treatment

Treatment depends on the severity of your baby's meconium aspiration. Treatments may include:

- Blood tests including a blood gas analysis (this helps us to know if the baby is getting enough oxygen)
- Fluids and/or drugs through a drip (intravenous/IV) inserted into the baby
- Antibiotics will be started to help prevent infection
- A chest x-ray will be taken. This can show patches or streaks on the baby's lungs and can help confirm that the baby has had meconium aspiration/ meconium aspiration syndrome
- If your baby is having breathing difficulties, continuous positive airway pressure (CPAP) may be necessary. This is an additional form of oxygen with extra support to help your baby breathe. Sometimes, this involves the baby being connected up to a breathing machine (ventilator). This helps breathe for the baby until they can breathe easily on their own. The length of treatment depends on the severity of the meconium aspiration. Babies who have mild meconium aspiration will usually improve

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in 5 to 7 days. Babies who have severe meconium aspiration will stay in the NICU for a longer period.

- Most babies, who have had mild meconium aspiration, will not require any special follow up care on discharge from NICU. If follow-up is required this will be discussed with you before you are discharged home.

Contact us

NICU: Direct dial number 04 806 0800

If you have any questions or concerns regarding our visiting policy please speak to the nurse in charge (ACNM).

