# Meconium Aspiration Syndrome

Meconium is normally found in the intestine of a *fetus* (unborn baby). It is a thick, dark green, sticky substance. After birth, the baby passes meconium in their first bowel movements. Sometimes before or during labor, a baby passes meconium into the *amniotic fluid* (liquid that surrounds the unborn baby). As a result a baby may accidentally breathe meconium:

- Before birth.
- Before the meconium can be removed from the mouth and throat at birth.

If the baby breathes meconium it is called *meconium aspiration*. Breathing meconium into the lungs can lead to a lung problem called meconium aspiration syndrome (MAS).

## CAUSES

Passing of meconium in the amniotic fluid happens more often:

- In term or overdue babies.
- When the unborn baby is not getting enough oxygen - especially during labor (*fetal distress*).

Passing meconium does NOT guarantee that the baby will breathe it in. In cases where meconium passes AND the baby is struggling for oxygen, there is greater chance of MAS.

## SYMPTOMS

The symptoms of MAS include:

- Difficulty in breathing. This usually lasts only a few days.
- Rapid breathing. This may last for several days – even after the baby is better.
- Grunting noise when breathing out.
- Sucking in of the spaces between the ribs when breathing in.
- Nostrils flare open when the baby breathes in.
- Blue skin color from not getting enough oxygen.
- Your baby's skin may be stained with meconium.

## DIAGNOSIS

The diagnosis of MAS is made by the history of labor and delivery, the physical exam and tests such as:

- Chest x-ray.
- Blood tests.

## TREATMENT

Your infant may be kept in the newborn ICU for further care. Care may include:

- Oxygen.
- A warmer to maintain body temperature.
- Monitoring for oxygen levels.
- *Intravenous* (IV) fluids since your baby will not be able to eat until the breathing problems improve.
- A breathing machine (*ventilator*) to help your baby breathe better.
- Antibiotics. Early in the care of your baby, it may be hard to know if there is infection, MAS, or both. In these cases, antibiotics may be given until your caregiver feels it is safe to stop them.
- A medicine that helps keep the tiny air sacs in the lungs from collapsing (*surfactant*).
- A machine that gives the blood oxygen outside of the body. This is called Extracorporeal Membrane Oxygenation (ECMO). ECMO is used when a ventilator has not worked

## HOME CARE INSTRUCTIONS

When your baby goes home, follow the instructions of your child's caregiver.

## SEEK MEDICAL CARE IF YOUR BABY:

- Has a cough.
- Is not feeding well.

## SEEK IMMEDIATE MEDICAL CARE IF YOUR BABY:

- Has a temperature at or above 100.4° F (38° C) measured rectally.
- Has trouble breathing:
  - Rapid and/or noisy breathing.
  - Grunting noise when breathing out.
  - Sucking in of the spaces between the ribs when breathing in.
  - Nostrils flare open when the baby breathes in.

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