

## Patient information factsheet

# Echogenic lung lesion

We have given you this factsheet because an ultrasound scan has shown your baby has an echogenic lung lesion (ELL).

This factsheet explains what an ELL is, the possible causes and what this means for you and your baby. It has been written to accompany the discussions you will have with our fetal medicine team.

We hope it will help to answer some of the questions you may have. If you have any further questions or concerns, please contact us using the details at the end of this factsheet.

### What is an echogenic lung lesion (ELL)?

Our lungs are divided into smaller sections called lobes. The lung on your left-hand side has two lobes and the lung on your right-hand side has three lobes. The left lung is smaller because the heart sits in the left-hand side of the chest.

Echogenic lung lesions are areas in the lungs that have not developed in the usual way. During an ultrasound scan (a procedure that uses high-frequency sound waves to create an image of part of the inside of the body), the lungs appear as light grey structures and echogenic lesions appear as bright spots. This means that ELLs can easily be detected.

It is currently believed that ELLs occur in about 1 in every 2500 pregnancies.

The most common types of ELLs include:

### **Congenital pulmonary adenomatoid malformation (CPAM)**

CPAM, formerly known as a congenital cystic adenomatoid malformation (CCAM), is the term used to describe the growth of cysts within the lung tissue. These cysts may be filled with air or fluid and their size can vary. There may be one large cyst (a macrocystic lesion) or lots of small cysts (a microcystic lesion).

### **Bronchopulmonary sequestration (BPS)**

BPS is the term used to describe the growth of an extra piece of lung tissue. A BPS may occur within the lung or develop outside of it. This extra piece of tissue develops without being connected to the airways or usual blood supply to the lungs and although it continues to grow, it does not function properly.

## What causes an ELL?

It is currently not known what causes an ELL to develop. However, we do know that ELLs occur on their own and are **not** part of a syndrome (group of symptoms) or an inherited condition (a condition passed from parent to child).

## What does this mean for you and your baby during pregnancy?

We have arranged an appointment for you in our fetal medicine unit, which is located on E level at Princess Anne Hospital, Southampton. During your appointment, we will:

- review your ultrasound scan
- discuss your baby's ELL with you
- offer you another detailed ultrasound scan of your baby

Accurate diagnosis of the type of ELL your baby has is extremely important so that our team can offer you and your baby the most appropriate care.

## Follow-up ultrasound scans

We will offer you an ultrasound scan every four to eight weeks during your pregnancy. You may have this scan at your local hospital or within our fetal medicine unit. The exact timing and frequency of your scans will depend on the size of your baby's ELL. Your obstetrician (a doctor who specialises in care during pregnancy, labour and after birth) will discuss your scans with you in more detail.

During these ultrasound scans, the size of your baby's ELL and the rate at which it is growing will be measured. Your baby's heart, lungs and overall growth and wellbeing will also be assessed.

## How may an ELL affect my baby?

ELLs are usually located in one lung and often continue to grow until 28 weeks of pregnancy. After this time, the growth of the lesion slows down. This means that as the baby continues to grow and develop, the ELLs become relatively small in comparison to the size of their lung, and by the time most babies with an ELL are born, the lesions are usually so small that we can no longer see them on ultrasound scans. For this reason, we may recommend your baby has an x-ray (a quick and painless procedure that uses radiation to produce images of the inside of the body) after birth to look at their lungs in more detail.

## Possible complications of an ELL

In a small number of babies, ELLs can grow quite large, taking up valuable space in their chest. If this happens, it can cause a number of complications, including:

- **Swallowing difficulties**  
If the baby cannot swallow normally, this can cause the amount of amniotic fluid (fluid that surrounds the baby) in the womb to increase (known as polyhydramnios). This increase in fluid can make you uncomfortable and can cause you to go into premature labour (labour that happens before 37 weeks of pregnancy). If you experience polyhydramnios, we may suggest removing some of the fluid in your womb to relieve this pressure or we may offer you medication to reduce the amount of amniotic fluid your body is producing.
- **Increased pressure on other organs in the chest**  
For example, placing pressure on the baby's blood vessels, heart, lungs, and diaphragm. The increased pressure can also push the baby's heart and lungs out of place.

- **Heart failure and hydrops fetalis**

On rare occasions, the increased pressure placed on the baby's heart can lead to heart failure and as the heart fails, hydrops fetalis. Hydrops fetalis is a serious and potentially fatal condition in which large amounts of fluid build up in a baby's body, causing extensive swelling. The increase in fluid can occur in any part of the body, but it is most commonly seen near the heart and lungs, and under the skin. The ultrasonographer (a specialist who performs ultrasound scans) will monitor your baby for signs of hydrops fetalis during your ultrasound scans. In this situation, it is sometimes possible to drain large cysts to improve the baby's wellbeing. If this is appropriate for your baby, we will discuss it with you in more detail.

## When to seek urgent medical advice

You will usually start to feel your baby move between 16 and 22 weeks. The first movements may feel like flutters and can be mistaken for indigestion. By 24 weeks, your baby will have developed their own pattern of movements. This will range from kicks and jerks to rolls and ripples. Sometimes your baby will hiccup. You will very quickly get to know the pattern of your baby's movements.

It is important that you become familiar with your baby's usual daily pattern of movements. If you feel that your baby's movements have changed, or you have any concerns about your baby's wellbeing, call the maternity triage line immediately on: **0300 123 9001** (if your maternity care is provided by University Hospital Southampton NHS Foundation Trust) **or** call your local maternity day assessment unit.

For more information, please read our 'Your baby's movements' factsheet which can be found online here: [www.uhs.nhs.uk/Media/UHS-website-2019/Patientinformation/Pregnancyandbirth/Your-babys-movements-3102-PIL.pdf](http://www.uhs.nhs.uk/Media/UHS-website-2019/Patientinformation/Pregnancyandbirth/Your-babys-movements-3102-PIL.pdf)

## Giving birth to your baby

Your baby's wellbeing will be closely monitored throughout your pregnancy. Providing you and your baby are well during this time, there should be no need to change where, when or how you give birth.

However, if your baby's ELL remains very large throughout your pregnancy and/or there are concerns about how well your baby's lungs will work after birth, we may recommend:

- your baby is born a little earlier than normal
- you give birth to your baby on the labour ward here at Princess Anne Hospital (this will enable your baby to receive extra care and support from our neonatal (baby) surgical team immediately after birth, if needed)

Your obstetrician will discuss your baby's birth with you and answer any questions you may have.

If we think that your baby is likely to need surgery to remove the ELL after they are born, we will arrange for you to meet our neonatal surgical team during your pregnancy. This will give you the opportunity to discuss the care of your baby after they are born, answer any questions you may have and have a tour of the neonatal unit.

## What happens after birth?

Treatment for an ELL will depend on the type and size of the lesion and whether or not the lesion is causing any serious health complications for your baby.

The majority of babies remain well with healthy lungs and do not need any treatment. If your baby remains well after birth and has no difficulty breathing, your local hospital will arrange an appointment for them to have x-rays of their lungs during their first week of life. These x-rays will look at the appearance of the ELL and will be used to help your baby's paediatrician (a doctor who provides care for babies, children and young people) decide if any treatment is necessary.

For some babies, a CT scan (a test that uses x-rays and a computer to create detailed pictures of the inside of the body) may also be appropriate. If a CT scan is recommended for your baby, we will offer them a scan and an appointment to discuss the findings when they are between four and six months old.

However, if the ELL is continuing to affect your baby's wellbeing after birth, for example by causing pneumonia (an inflammation of the lungs caused by infection) or by placing pressure on your baby's heart and lungs, we may need to treat the ELL.

## Surgery

In some babies, the ELL presses on the lung causing them some difficulty with breathing. This may be minor, resulting in rapid breathing, or it may be more serious.

If your baby is having trouble breathing, we will probably need to perform an operation. The timing of this operation will depend on how your baby is affected. For some babies, the operation will need to be performed within the first 24 to 48 hours of them being born. For others, it may be performed when they are a few days old.

This operation usually involves removing the ELL and a piece of the affected lung. The remainder of your baby's lung should grow to compensate for the piece that has been removed.

How long it will take for your baby to recover will depend on how compressed their remaining lung has been while they were in the womb. Many babies will recover in a few days, while others may need to stay in hospital for several weeks.

In very rare cases, the growth of these lesions may stop some babies' lungs from developing properly and despite surgery, may be fatal.

## Long-term care and follow-up

The long-term outlook for most babies with an ELL is very good. They usually grow up to be healthy children and do not have any long-term problems with their lungs. Your child will be offered regular appointments to monitor their progress throughout their childhood.

## Contact us

We understand that this can be a worrying time for you, your partner and your family. If you have any further questions or concerns, please contact us.

Fetal medicine team

Telephone: **023 8120 6025** (Monday to Friday, 9am to 5pm)

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Specialist surgical nurses  
Telephone: **023 8120 8564**

Your general practitioner (GP), midwife and obstetrician may also be able to give you more information.

For **urgent** queries outside of these hours, please call the maternity triage line on: **0300 123 9001** (if your maternity care is provided by University Hospital Southampton NHS Foundation Trust) **or** call your local maternity day assessment unit.

## Useful links

Antenatal Results & Choices (ARC)

ARC is a national charity that supports people in making decisions about screening and diagnosis and whether or not to continue a pregnancy.

Website: [www.arc-uk.org](http://www.arc-uk.org)



[www.what0-18.nhs.uk/pregnant-women/concerns-during-pregnancy/over-20-weeks/reduced-baby-movements-after-24th-week-pregnancy](http://www.what0-18.nhs.uk/pregnant-women/concerns-during-pregnancy/over-20-weeks/reduced-baby-movements-after-24th-week-pregnancy)

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