What is the umbilical cord?

The umbilical cord connects the baby from its umbilicus (tummy button) to the placenta (afterbirth) inside the uterus (womb). The cord contains blood vessels, which carry blood, rich in oxygen and nutrients, to the baby and waste products away.

After the baby is born, the cord is clamped and cut before delivery of the placenta.

What is a cord prolapse?

A prolapse is when an organ or a part of your body slips or falls out of place. In this instance it is when the cord comes through the open cervix (entrance of the womb) in front of the baby before the birth.

Cord prolapse is not common, occurring in about one in 200 (0.5%) births. Usually the mother is in labour when the prolapse happens but sometimes it happens when the waters break (rupture of the amniotic sac and release of fluid) before labour.
In some instances, a cord can prolapse early on in pregnancy but this is not covered in this leaflet. Most commonly, cord prolapse occurs close to the end of pregnancy (over 38 weeks).

A prolapsed cord is an emergency situation for the baby.

**Why is it an emergency?**

When the cord prolapses, it can be squeezed by the baby, which can reduce the amount of blood flowing through the cord and so reduces the oxygen supply to the baby (see *What could a cord prolapse mean for my baby?*). The baby may need to be delivered immediately to prevent the lack of oxygen causing long-term harm or death of the baby.

**Can a cord prolapse be predicted?**

It is not possible to predict a cord prolapse. An ultrasound scan does not show which women will have a cord prolapse, as the cord and the baby change position during the pregnancy.

**What are the risk factors?**

When the baby is engaged (moves down into and completely fills the pelvis), the cord cannot usually prolapse. However, if the baby is not engaged, there is space for the cord to slip past and prolapse.

The chance of cord prolapse is also higher if:

- your baby is not in the head-first position, particularly if the baby is transverse (lying sideways) when the waters have just broken. One in 100 (1%) of babies in the transverse position have a cord prolapse
- you have more than one baby (such as twins or triplets)
- you have too much water surrounding the baby (polyhydramnios)
- your waters break early – see RCOG Patient Information on *When Your Waters Break Early (Preterm Prelabour Rupture of Membranes)*
- your waters are broken by a doctor or midwife (artificial rupture of membranes or ARM) when the baby’s head is higher up in your pelvis. Your doctor or midwife will usually only break your waters if the baby’s head is low down in your pelvis to try to avoid cord prolapse. If there is uncertainty, your doctor and midwife might break the waters in an operating theatre. If there is a cord prolapse, you would then be in the best place to deliver the baby quickly.

Your obstetrician or midwife will give you full information about your own situation if any of these conditions are suspected.
Can a cord prolapse be prevented?

Umbilical cord prolapse cannot be prevented. However, if you are at increased risk, you may be admitted to hospital – then immediate action can be taken if your waters break or you go into labour.

What are the signs of a cord prolapse?

The signs of a cord prolapse are that:

- you can feel something (the cord) in your vagina
- you can see the cord coming from your vagina
- your obstetrician or midwife can see or feel the cord in your vagina
- the baby’s heart rate slows (bradycardia) soon after your waters break. This can mean that the baby is not getting enough oxygen.

In some women there are no signs.

What should I do if I am at home or at work?

If you think you can feel the cord in your vagina or you can see the cord:

- phone 999 for an emergency ambulance immediately
- say that you are pregnant and you think you have a prolapsed umbilical cord
- do not attempt to push the cord back into your vagina
- do not eat or drink anything in case you need an operation.

To reduce the risk of the cord becoming compressed, you will be advised to get onto your knees with your elbows and hands on the floor, and then bend forward (as shown in the diagram below). You should remain in this position until the ambulance or midwife arrives.

The ambulance will take you to the nearest consultant-led hospital or unit which can provide full care. In the ambulance it is safer for you to lie down on your side.
What happens next?
As the baby needs to be born as soon as possible it is likely that you will be advised to have an emergency caesarean delivery but a vaginal birth may also be possible. Your doctor and midwife will explain the situation and what needs to be done.

A midwife or doctor may need to gently insert a hand in your vagina to lift the baby’s head to stop it squeezing the cord. Alternatively a catheter (tube) may be put into your bladder to fill it up with fluid. This will help to hold the baby’s head away from the cord and reduce pressure on the cord. You may be given oxygen through a mask and fluid from a drip.

Emergency caesarean delivery
If a vaginal birth is not possible very quickly, you will be advised to have an immediate caesarean delivery.

You may need to have a general anaesthetic instead of a spinal or epidural for your caesarean, so the baby can be born quickly.

Vaginal birth
If your cervix is fully dilated, you may be able to have a normal birth or an assisted birth (forceps or ventouse) but only if this can happen very quickly. A vaginal birth is less likely than a caesarean delivery when you have had a cord prolapse.

A doctor or midwife trained in caring for newborn babies should be at the birth.

This situation can feel frightening for you and your partner but the midwives and doctors will explain what is going on. Every effort will be made to keep you fully informed. Do ask questions if you want to know what is happening.

What could a cord prolapse mean for my baby?
For most babies there is no long-term harm from cord prolapse.

Sadly, even with the best care, some babies can suffer brain damage if there is a severe lack of oxygen (birth asphyxia). Rarely a baby can die.

Your baby’s doctor should provide you with full information if your baby has come to harm. You should also be given information about support groups (see Useful organisations).

How will I feel after the birth?
For the vast majority of mothers the outcome is good and both parents clearly understand what has happened. However, some women feel guilty about what has happened even though it is not their fault. Some get postnatal depression; other
women get post-traumatic stress disorder (PTSD). Cord prolapse can affect the whole family. So, it is important for you to speak with your doctor or midwife about your experience before you leave hospital as the whole experience of a cord prolapse can be traumatic. Talking about what happened before you go home can help to reduce your anxiety. You can also get support from your hospital and community teams.

You might feel worried about having another baby. The chance of having a cord prolapse in your next pregnancy is low.

If you continue to feel upset because of the cord prolapse, talk to your GP or midwife. Your GP can also arrange for you to see your obstetrician if you would find this helpful.

A list of useful organisations is available on the RCOG website at: www.rcog.org.uk/womens-health/patient-information/useful-links

A glossary of all medical terms is available on the RCOG website at: www.rcog.org.uk/womens-health/patient-information/medical-terms-explained

Sources and acknowledgements
This information is based on the Royal College of Obstetricians and Gynaecologists (RCOG) guideline, Umbilical Cord Prolapse (April 2008). This information will also be reviewed and updated if necessary, once the guideline has been reviewed. The guideline contains a full list of the sources of evidence we have used. You can find it online at: www.rcog.org.uk/womens-health/clinical-guidance/umbilical-cord-prolapse-green-top-50.

Clinical guidelines are intended to improve care for patients. They are drawn up by teams of medical professionals and consumer representatives who look at the best research evidence available and make recommendations based on this evidence. This information has been developed by the Patient Information Subgroup of the RCOG Guidelines Committee, with input from the Consumers’ Forum and the authors of the clinical guideline. It has been reviewed before publication by women attending clinics in Taunton, Milton Keynes and Durham. The final version is the responsibility of the Guidelines Committee of the RCOG. The RCOG consents to the reproduction of this document, provided that full acknowledgement is made.

A final note
The Royal College of Obstetricians and Gynaecologists produces patient information for the public. This information is based on guidelines which present recognised methods and techniques of clinical practice, based on published evidence. The ultimate judgement regarding a particular clinical procedure or treatment plan must be made by the doctor or other attendant in the light of the clinical data presented and the diagnostic and treatment options available.

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