Planning how to give birth after previous caesarean section – information from three large studies

What are my options for birth after a previous caesarean section?

If you have had a baby before by caesarean section, you may be thinking about how to give birth in your next pregnancy.

You should be offered the opportunity to discuss whether to:

plan another birth by caesarean section

or

plan a vaginal birth

Planning another birth after caesarean is sometimes called an **Elective Repeat Caesarean Section** or **ERCS**. Planning a **Vaginal Birth After a Caesarean section** is sometimes called a **VBAC**.

Your individual circumstances may mean that you will be advised to have another caesarean section, for example, if your previous caesarean incision was 'classical', involving the upper part of your womb, or you have pregnancy complications such as low-lying placenta known as placenta praevia.

If planning a VBAC, you may be offered an induction of labour (where labour is started artificially). Induction of labour may be offered if your baby is overdue, if your labour doesn't start after your waters break or you or your baby has a health problem. More information about induction of labour if you have had a previous caesarean birth can be found in the first link provided at the end of this leaflet.

Information that may help you as you plan your next birth

The Royal College of Obstetricians and Gynaecologists and the National Institute for Health and Care Excellence (NICE) have produced information which you may find useful. Links to this information are provided at the end of this leaflet.

We have recently carried out new research and our findings, together with other information, may also help you as you plan your next birth.

We carried out three studies using data from Scotland. The studies compared a range of outcomes for mothers and their babies according to whether women planned a VBAC or planned another caesarean (ERCS). The studies were large, involving up to 74,043 women who gave birth to a single baby (not twins or more) in Scotland following a full-term pregnancy (37-41 weeks gestation) who had previously given birth by caesarean. We excluded women who had been advised for medical reasons not to plan a VBAC.

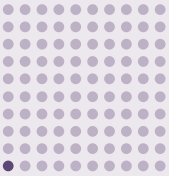
This leaflet provides a summary of the key findings from the studies.

Key messages from the studies:

Whichever way you plan to give birth, birth after previous caesarean section is **generally very safe**.

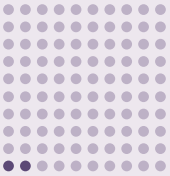
Out of 10 women planning a VBAC, **7 gave birth vaginally** and **3 had an unplanned caesarean section** when they were in labour. In this situation the caesarean section may have to be carried out urgently and be a different experience to a planned caesarean. The most common reasons for an unplanned caesarean section during labour is that the labour progresses too slowly or there are concerns about the wellbeing of the baby.

Planned VBAC compared to ERCS **increased** the chance of the mother having various **birth-related complications**. This is explained in more detail on pages 3 and 4. Most of the maternal birth-related complications occurred among the women who needed an unplanned caesarean section carried out during the course of a planned VBAC labour.



ERCS

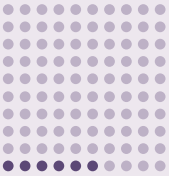
Nearly **1** in every **100** women having an ERCS experienced serious birth-related maternal complications (or 0.8%)



Planned VBAC

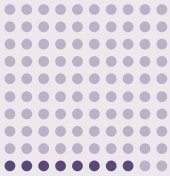
Nearly **2** in every **100** women planning a VBAC experienced serious birth-related maternal complications (or 1.8%)

Planned VBAC compared to ERCS **increased** the chance of the **baby** having various problems during or shortly after birth. This is explained in more detail on pages 5 and 6.



ERCS

Around **6** in every **100** babies born to women having an ERCS had one or more of a range of problems during or shortly after birth (or 6.4%)

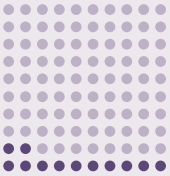


Planned VBAC

Around **8** in every **100** babies born to women planning a VBAC had one or more of a range of problems during or shortly after birth (or 8.0%)

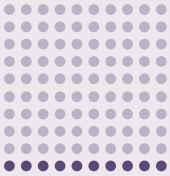
Women who planned a VBAC were **more likely** than women who had an ERCS to **breastfeed**.

Women who had an ERCS were **more likely** than women who planned a VBAC to be given **medication to treat mental health problems** in the year after they gave birth. However, this does not necessarily mean that mental health is better in the planned VBAC group, as not all women with mental health problems will seek treatment and not all mental health problems are treated with medication. This is explained in more detail on page 5.



ERCS

Around **12** in every **100** women having an ERCS were given any medication to treat mental health problems in the year after giving birth (or 12.3%)



Planned VBAC

Around **10** in every **100** women planning a VBAC were given any medication to treat mental health problems in the year after giving birth (or 10.0%)

Children born following planned VBAC compared to ERCS had a **similar** chance of having **special educational needs** - that is, learning difficulties or disabilities that make it harder for a child to learn compared to other children of the same age such as dyslexia.

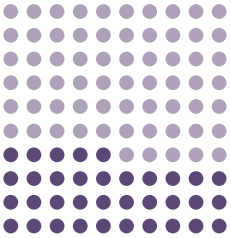
Outcomes for the mother

Birth after previous caesarean section is generally very safe, but occasionally problems can happen. Our research found that some problems or outcomes were more likely to happen depending on whether women planned a VBAC or an ERCS. These differences are explained below. Not all women will view all of these outcomes with the same importance.

You need to decide what is important to you as you make your decision about how to plan your birth.

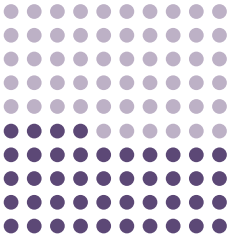
Breastfeeding

Our research found that women who planned a VBAC were more likely than women who had an ERCS to breastfeed. Our research does not allow us to explore the reasons for this. However, our findings suggest that women planning an ERCS might need additional support to breastfeed.



ERCS

Around **35** in every **100** women having an ERCS breastfed their baby (exclusively or mixed) at around 6-8 weeks after birth (or 35%)



Planned VBAC

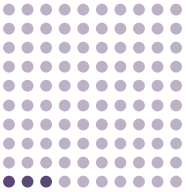
Around **44** in every **100** women planning a VBAC breastfed their baby (exclusively or mixed) at around 6-8 weeks after birth (or 44%)

Large perineal tear (third- or fourth-degree tears)

Giving birth vaginally can sometimes tear the perineum (the area between the vagina and the back passage or anus). Most of the time such tears are small, but they can be large and extend into the back passage/muscle that controls the anus. These larger tears, known as third- or fourth-degree tears, need an operation to repair. Most women make a good recovery and have no lasting complications. However, a small number of women will experience difficulty controlling their bladder or bowel. These women may need further treatment such as physiotherapy. Having an ERCS avoids the risk of having a third- or fourth-degree tear. However, if planning a VBAC, there are a number of things that may help to reduce the risk of having a tear such as perineal massage (see ***https://www.rcog.org.uk/en/patients/tears/reducing-risk/*** for more information).

ERCS

Not applicable

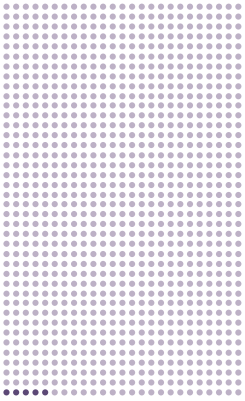


Planned VBAC

Around **3** in every **100** women planning a VBAC had a third- or fourth degree tear (or 2.9%)

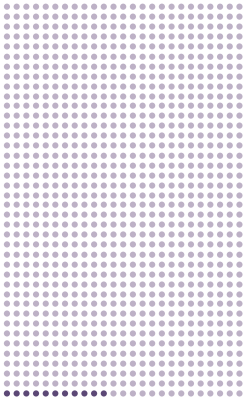
Blood transfusion

Our research found that the chance of the mother needing a blood transfusion was higher for women who planned a VBAC than for women who had an ERCS having taken into account important differences between the women.



ERCS

Around **5** in every **1,000** women having an ERCS needed a blood transfusion (or 0.5%)

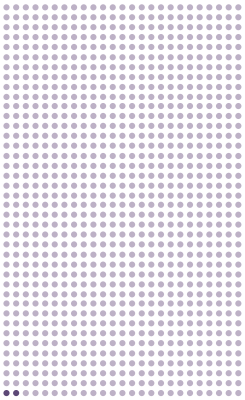


Planned VBAC

Around **11** in every **1,000** women planning a VBAC needed a blood transfusion (or 1.1%)

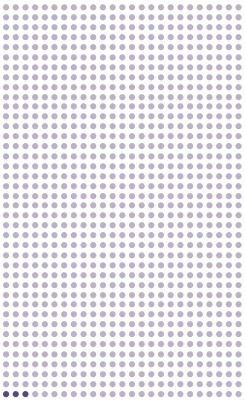
Serious infection

Our research found that the chance of the mother having a serious infection was uncommon but higher for women who planned a VBAC than for women who had an ERCS having taken into account important differences between the women.



ERCS

Nearly **2** in every **1,000** women having an ERCS had a serious infection (or 0.17%)

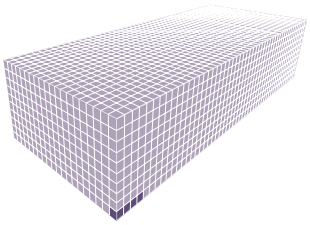


Planned VBAC

Nearly **3** in every **1,000** women planning a VBAC had a serious infection (or 0.27%)

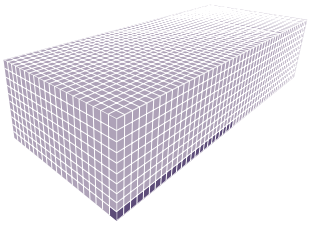
Rupture of the womb (uterus)

Rupture of the womb (uterus) is a rare but serious complication where the wall of the womb tears open. Our research found that the chance of the mother having womb rupture was rare but higher for women who planned a VBAC than for women who had an ERCS having taken into account important differences between the women.



ERCS

Around **4** in every **10,000** women having an ERCS had uterine rupture (or 0.04%)

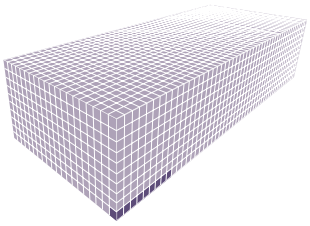


Planned VBAC

Around **24** in every **10,000** women planning a VBAC had uterine rupture (or 0.24%)

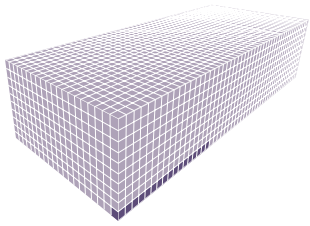
Surgical injury (damage to the bowel, bladder or ureter needing an operation to repair)

Surgical injury, defined as damage to a woman's bowel, bladder or the tube between the kidneys and bladder (ureter) needing an operation to repair, is a rare birth-related complication. Our research found that the chance of the mother having surgical injury was rare but higher for women who planned a VBAC than for women who had an ERCS having taken into account important differences between the women.



ERCS

Around **9** in every **10,000** women having an ERCS had surgical injury (or 0.09%)



Planned VBAC

Around **17** in every **10,000** women planning a VBAC had surgical injury (or 0.17%)

Length of hospital stay after birth

Our research found that the chance of the mother having to stay in hospital for more than 5 days after they gave birth varied according to whether she had any previous vaginal births and the number of previous caesarean sections she had:

Women planning a VBAC were **less** likely than those having an ERCS to have a hospital stay of more than 5 days after birth, but only if they had previously given birth vaginally.

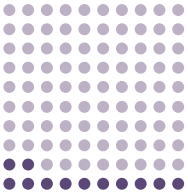
Women planning a VBAC were **more** likely than those having an ERCS to have a hospital stay of more than 5 days after birth if they had two or more previous caesarean sections , but not if they had only one previous caesarean section.

Use of medication to treat certain mental health problems

In the UK up to 1 in 5 women develop mental health problems during pregnancy or in the first year after childbirth. Mental health problems can include anxiety, depression, post-traumatic stress disorder or more rarely psychosis. Various treatments can be offered. Talking treatments, medication such as antidepressants or both talking treatments and medication are the most common types of treatment offered for anxiety or depression. Talking treatments are the main treatment offered for post-traumatic stress disorder and psychosis is usually treated with medication. We only had information on women's use of medication to treat mental health problems. Therefore, our research cannot say anything about mental health problems for which women did not seek treatment or mental health problems that were not treated with medication.

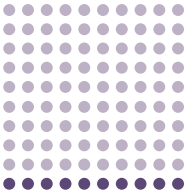
Our research found that women who had an ERCS were more likely than women who planned a VBAC to be given medication to treat mental health problems in the year after they gave birth having taken into account some important differences between the women such as whether they had a history of being given medication to treat mental health problems in the year before birth. Antidepressants were the most common type of medication, with around 1 in 10 women in our study given this medication in the year after they gave birth.

There are a number of possible reasons for our findings. Women who planned a VBAC might have been less likely than women who had an ERCS to seek treatment for mental health problems or might have been less likely to be treated with medication in the year after birth. Alternatively, women giving birth by ERCS might have been more likely to experience certain mental health problems requiring medication in the year after birth. However, this might not be related to having an ERCS. It could, for example, be the case that women who plan an ERCS are more likely to have a fear of childbirth or more anxious personalities that could on their own increase the chances of having mental health problems. More research is needed to understand this.



ERCS

Around **12** in every **100** women having an ERCS were given any medication to treat mental health problems in the year after giving birth (or 12.3%)



Planned VBAC

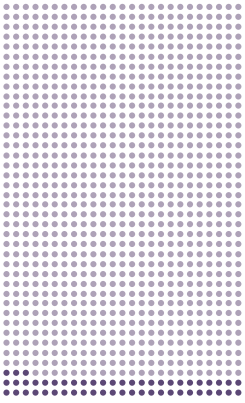
Around **10** in every **100** women planning a VBAC were given any medication to treat mental health problems in the year after giving birth (or 10.0%)

Outcomes for the baby/child

The diagrams below show outcomes for the baby/child according to how women planned to give birth after a previous caesarean section.

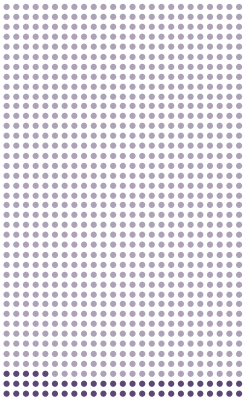
Admission of the baby to a neonatal unit

Sometimes a baby will need to be admitted to a specialist newborn (neonatal) unit for extra care after they are born. Babies can be admitted to a neonatal unit for a number of reasons, such as when they have an infection or a difficult birth. Most babies born after a full-term pregnancy (37-41 weeks gestation) will not need care in a neonatal unit, but for those who do, most will only need a few days of extra care. Our research found that the chance of the baby being admitted to a neonatal unit was slightly higher for women who planned a VBAC than for women who had an ERCS.



ERCS

Around **53** in every **1,000** babies having an ERCS were admitted to a neonatal unit (or 5.3%)

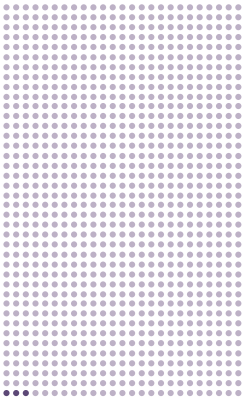


Planned VBAC

Around **55** in every **1,000** babies planning a VBAC were admitted to a neonatal unit (or 5.5%)

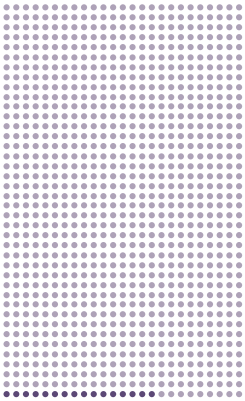
Medicine or equipment to help with breathing immediately after birth

Occasionally a baby will need medicine or equipment to help with breathing. Our research found that the chance of this happening was higher for babies born to women who planned a VBAC than for those born to women who had an ERCS having taken into account important differences between the women and their babies.



ERCS

Around **3** in every **1,000** babies born to women having an ERCS needed medicine or equipment to help with breathing immediately after birth (or 0.3%)

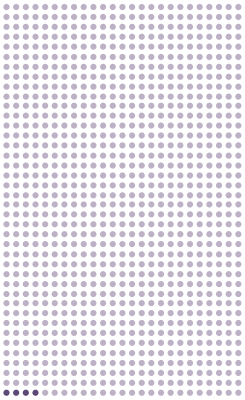


Planned VBAC

Around **16** in every **1,000** babies born to women planning a VBAC needed medicine or equipment to help with breathing immediately after birth (or 1.6%)

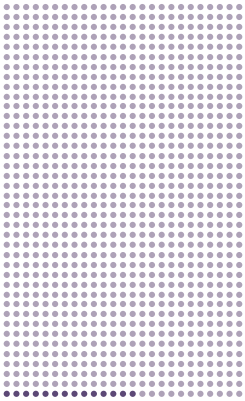
Low Apgar score at 5 minutes after birth

The Apgar score is a way of quickly assessing the health of a baby shortly after birth. It can help medical staff to decide if your baby needs extra care. A score of 7 or more out of 10 at 5 minutes after birth is considered normal. A score of less than 7 at 5 minutes after birth is considered as low, and may indicate that your baby needs extra care. Our research found that the chance of the baby having a low Apgar score (less than 7) at 5 minutes after birth was higher for women who planned a VBAC than for women who had an ERCS having taken into account important differences between the women and their babies.



ERCS

Around **4** in every **1,000** babies born to women having an ERCS had a low Apgar score at 5 minutes after birth (or 0.4%)

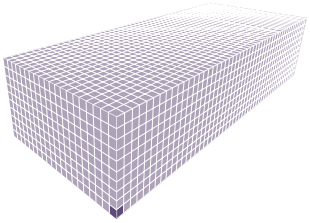


Planned VBAC

Around **14** in every **1,000** babies born to women planning a VBAC had a low Apgar score at 5 minutes after birth (or 1.4%)

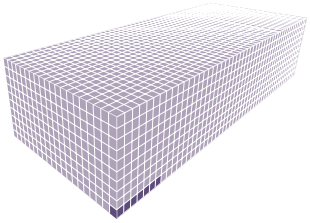
Intrapartum stillbirth or neonatal death

Very occasionally babies can die during birth or shortly after birth. Our research found that the chance of this happening was rare whichever way you plan to give birth, but was higher for babies born to women who planned a VBAC compared to an ERCS. For women who planned a VBAC, the chance of their baby dying during birth or shortly after birth was around the same as if they were having their first baby.



ERCS

Around **1** in every **10,000** babies born to women having an ERCS died during or shortly after birth (or 0.01%)

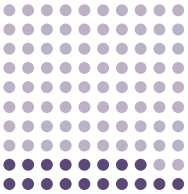


Planned VBAC

Around **7** in every **10,000** babies born to women planning a VBAC died during or shortly after birth (or 0.07%)

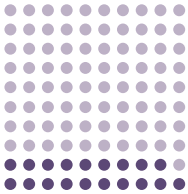
Special educational needs in childhood

The term 'special educational needs' is used to describe learning difficulties or disabilities that make it harder for a child to learn compared to other children of the same age. Our research found that children born following planned VBAC had a similar chance of having any special educational needs or specific types of special educational needs (e.g. dyslexia) to those born by ERCS.



ERCS

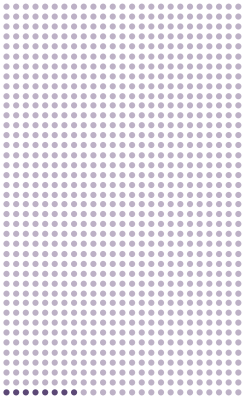
Around **18** in every **100** children born by ERCS had any record of special educational needs when they were aged 4-11 years (or 17.6%)



Planned VBAC

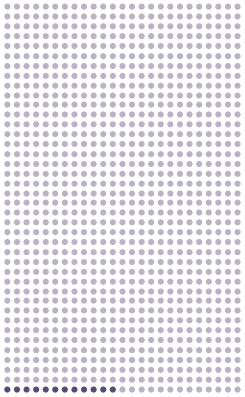
Around **19** in every **100** children born following planned VBAC had any record of special educational needs when they were aged 4-11 years (or 19.2%)

Our research also suggests that children born following planned VBAC with or without labour induction (where labour is started artificially) compared to ERCS had a similar chance of having any special educational needs or most types of special educational needs. However, children born following planned VBAC where labour was induced were more likely than those born by ERCS to have a sensory impairment (a problem with their hearing and/or sight).



ERCS

Around **8** in every **1,000** children born by ERCS had a sensory impairment (or 0.78%)



Planned VBAC with labour induction

Around **12** in every **1,000** children born following planned VBAC with labour induction had a sensory impairment (or 1.18%)

Other factors you may wish to consider

Our research may not include all the information that is important for you as you make this decision. For example, you might wish to consider how many more children you may want to have, as **the chances of having serious complications in future pregnancies increases with each caesarean** section (see below for link to leaflets from the Royal College of Obstetricians and Gynaecologists for more information).

A number of factors are thought to reduce a woman's risk of experiencing some of the complications associated with planned VBAC. For instance, if you have had a previous vaginal birth or your caesarean was over a year ago, your risks of some of the complications of planned VBAC are likely to be lower than average. You may want to discuss this with your doctors or midwife.

There are somethings we were not able to look at in our research that may have influenced outcomes for mothers or their babies. For example, we did not have information about the reason for a woman's previous caesarean section(s).

Most women in our studies had one or two previous births. Our findings may therefore not apply to women who have had a larger number of previous births, particularly if they have had a large number of previous caesareans.

More information

- The Royal College of Obstetricians and Gynaecologists has produced information leaflets on
  - the options for birth for women who have already had a caesarean birth:

    https://bit.ly/2TR3gDt
  - having a planned caesarean section:

    https://bit.ly/3gRwwlw
- The National Institute for Health and Care Excellence (NICE) has produced guidance on having a caesarean section:

  https://www.nice.org.uk/guidance/ng192/resources/caesarean-birth-pdf-66142078788805
- You can listen to women share their experiences of making decisions about birth after previous caesarean:

  https://healthtalk.org/making-decisions-about-birth-after-caesarean/overview
- You can discuss your options for birth further with your doctor or midwife.
- Other sources of support:

  https://maternalmentalhealthalliance.org/resources/mums-and-families/

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