

Fact Sheet

Next Birth After Caesarean - NBAC / VBAC

Helping women with one previous caesarean plan their next birth

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Caesarean section (CS) is a very common operation, with one third of Australian babies now born this way. As a result, many women have to decide how they would like to give birth in the next pregnancy after a caesarean.

The information contained in this sheet is intended for women who:

- have had one caesarean only.
- had an uncomplicated low transverse incision (horizontal cut) on the uterus at the time of the caesarean.
 - For women who had their caesarean in Australia, we will obtain the operation notes from your previous hospital to know for sure.
 - For women who had their caesarean overseas, we will generally use our knowledge of your birth story to get an idea of the most likely incision you had although if you can obtain your records from your home country, that would be helpful. Some women from overseas have an up-and-down cut on the abdomen (tummy). However, the cut on the uterus is still very likely to be a low transverse cut as this is the commonest and easiest way to do a caesarean.
- have had no other big operation on the uterus such as removal of big fibroids.
- will be having this baby 18 months or more after the previous caesarean.
- are having only one baby this time and it is coming head-first.

What are my options?

The 2 choices you have are either:

- a booked elective repeat caesarean section (ERCS) usually at around 39 weeks; or
- an attempt at vaginal birth after caesarean (VBAC) that may result in-
 - a successful vaginal birth after some hours in labour. The vaginal birth may be 'natural' or may sometimes be assisted with instruments such as forceps or vacuum.
 - an unsuccessful VBAC attempt resulting in an 'emergency' caesarean birth after some hours in labour. This may be necessary because the labour does not progress well or because the baby does not cope with the birth process or both. In this situation, the term 'emergency' does not usually mean anything worrying - it's just how we tell the difference from a booked 'elective' caesarean.



How do I decide between an ERCS and a VBAC attempt?

Both an ERCS and a VBAC attempt have many advantages but some small risks. Generally a woman who has had only one caesarean is able to make the decision herself about how to give birth this time, after working through both options with our staff. It's important to mention that, while some women find the decision easy to make, many others find it quite difficult.

NOTE: Other women may also be able to try for a vaginal birth but that decision will require in-depth discussion with a consultant obstetrician about the benefits and risks in your individual situation.

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Part of the the reason the decision can be difficult is the large amount of confusing information to think about. In addition, you also have to try and balance

- what's best for this baby,
- what might be best for any future babies, and
- what's best for your own safety and health in this pregnancy and future pregnancies.

During your pregnancy, our doctors and midwives will help you to make a decision you are happy with.

Key things for you to think about are:

- What your chance of a successful vaginal birth is – can be quite different from woman to woman.
- How many children you plan to have.
- How you feel about your previous birth experience(s).
- How you feel about the advantages and small risks of both options – for this baby, the next baby and your own health.

What is my chance of a successful vaginal birth with a VBAC attempt ?

The chance of success varies from 20% to over 90% depending on a range of factors including:

- Whether you have had a previous vaginal birth
- The reason for your previous caesarean
- Whether you are overweight
- Whether labour starts naturally this time or has to be brought on with medication (induced)
- If this baby is particularly big for you

Look at Table 1 at the end of this fact sheet to estimate your own approximate chance of success. Our staff can help you with this.

Why does it matter about how many children I plan to have?

The size of family you and your partner would like matters because complications during pregnancy and birth increase slightly with each caesarean birth but generally not with each vaginal birth.

- If you are likely to have another child after this one, you get more benefit out of achieving a vaginal birth this time because future births will likely be vaginal too.
- Similarly, if you have a caesarean this time, future births will likely be caesarean.

However, it is not unusual for women to have five or six caesareans without any problems so don't worry too much about it, even if you are planning a big family.

What about how I feel about my previous birth experience(s)?

No one's birth experience is ever perfect, but some women have a tougher time than others, and your previous experience and how you feel about it will play some part in the decisions you make this time. If you have questions or concerns about your previous birth experience, please make sure you discuss them with your midwife and doctor.



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Are there risks to me or my baby from having a VBAC attempt rather than an ERCS at 39 weeks?

Table 2 summarises the most of the risks to this baby, future babies and yourself with both VBAC attempt and ERCS

Risk for *your baby* from VBAC attempt

There is a 3 per 1000 chance of your baby dying or suffering brain damage or other serious injury from a VBAC attempt that wouldn't occur if you had a ERCS at 39 weeks.

There is also another 10 per 1000 chance of more minor complications which will generally settle down and not cause long term problems and which can occur in any labour or vaginal birth.

Altogether, this means that there is about 99% (990 per 1000 chance) that **your baby will not suffer any increased risk of harm** from a VBAC attempt.

Risk for *you* from VBAC attempt

The chance a woman will die during ERCS or VBAC attempt is extremely low and about the same (approximately 1 in 4000).

The chance a woman will lose her uterus (hysterectomy) and not be able to have future children is about the same with both ERCS and VBAC attempt (approximately 1 in 1000).

The chance a woman will have moderate short term complications she will recover from such as injury to organs and tissues, heavy bleeding and infection is lowest in a successful VBAC attempt but highest in an unsuccessful VBAC attempt (see Table 2) with ERCS having risks in the middle.

Uterine rupture is where the scar on the uterus deep inside the tummy opens up during the labour contractions. This can put the oxygen supply to the baby at risk and can also cause the woman to lose a lot of blood. Uterine rupture is the main thing we worry about with a VBAC attempt compared to usual labour.

- Uterine rupture is quite rare – only 1 in 200 low transverse uterine scars will open up if labour is completely 'natural', while 1 in 100 uterine scars will open if low dose oxytocin medication is needed to make contractions stronger, and 1 in 50 if a stronger dose of oxytocin is used (see Table 2).
- If uterine rupture does occur, in 6 out of 7 cases, the baby will be well. But in **1 in 7** cases, the baby will die or have brain damage - even in a big hospital like Westmead with staff and operating theatres available almost immediately.



- Uterine rupture also carries a risk for the women with a 1 in 4 chance of losing the uterus and not being able to have further children. There is also a high chance of needing a blood transfusion.

Putting all this information together, the chance of a baby dying or having brain damage from a uterine rupture during a VBAC attempt is very small, about **1 per 1000** VBAC attempts.

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Are there risks to me or my baby from having an ERCS rather than a VBAC attempt?

Risk for *your baby* from ERCS

- **Breathing difficulties** in the baby after birth are more likely after ERCS compared to vaginal birth. The problem is generally mild and usually only lasts a few hours or days; however it can occasionally be very serious (see Table 2)
- An ERCS may make it harder to get **breastfeeding** off to a good start compared to a successful vaginal birth. However, most women who have an ERCS will have no trouble with breastfeeding and our staff will do everything they can to ensure feeding goes well for you and your baby, no matter what type of birth you have.
- Sometimes at caesarean, the baby receives a small **accidental cut** on its face or body when the uterus is opened during surgery. This occurs
 - in about 5 per 1000 cases of elective CS
 - In about 15 per 1000 cases of emergency CS because most of the water around the baby is gone and so the baby is closer to the walls of the uterus
 - Such cuts nearly always heal with no scar or a faint scar.

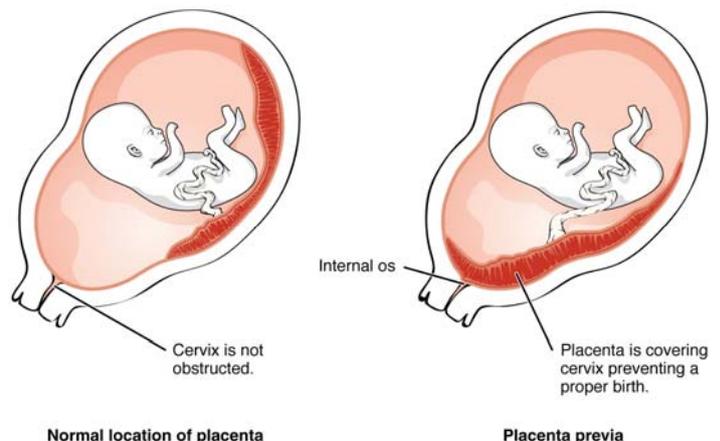
Risk for *you* from ERCS

Having a caesarean compared to a vaginal birth generally results in greater pain, blood loss and infection risk, and slower recovery. However, as in Table 2, an elective caesarean has fewer of these complications than an emergency caesarean. So again, your chance of success with a vaginal birth is important.

Taking future pregnancies into account

- Generally, vaginal births after the first one are easy to recover from while repeat caesareans are not so easy.

- In addition, with each caesarean, the operation becomes a little bit more difficult to perform; however the vast majority of caesarean operations have no complications so you shouldn't worry too much about this.
- Placental problems
 - The placenta is the organ that develops alongside your baby in the uterus and provides your baby with oxygen and food. Problems with the placenta sitting too low in the uterus (placenta praevia) or being dangerously stuck to the wall of the uterus (placenta accreta) are not common but they become more common with each previous caesarean.



ATT: Placenta praevia :By OpenStax College [CC BY 3.0 <http://creativecommons.org/licenses/by/3.0/>], via Wikimedia Commons

If you have a placenta praevia or accreta in a future pregnancy, you may need to spend some weeks in hospital during pregnancy; these conditions may also result in heavy bleeding, blood transfusion, loss of the uterus (hysterectomy) and the need to deliver the baby early (see Table 2 and also our *Fact Sheet on Placenta Praevia*)

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What happens at the time of birth if I choose an ERCS?

- ERCS generally takes place at around 39 weeks unless there is a reason to do it earlier. Usually you will come from home on the day of the surgery and not have any labour.

Occasionally labour starts before the booked date and the caesarean is then usually brought forward and done immediately. Sometimes in this situation, your labour is found to be quite far along and your chances of having a successful VBAC are reasonably high. After discussing the situation with your family and our staff, you may then decide to try for a vaginal birth or you may decide to continue with your plan for a CS.

Risks in perspective

It's important to remember that there are small risks in everything we do.

Being pregnant and giving birth carries a 1 in 10,000 chance of dying that a woman wouldn't have if she wasn't pregnant. This risk is slightly higher for a woman with a previous CS who has a 1 in 4,000 chance of dying during childbirth (both VBAC attempt and ERCS).

20 – 30 per 1000 (2 – 3%) of babies are born with significant abnormalities

Driving around in a car or crossing the road gives us a 1 in 20,000 chance of dying and a 1 in 700 chance of being hospitalised each year which wouldn't happen if we stayed at home all the time (note - staying home also has risks).

What happens if I choose VBAC Labour?

- During a VBAC labour, our staff will watch you and your baby closely to make sure things are progressing well.
- We will ask you to come into hospital once you are having contractions every 5 minutes (2 contractions in 10 minutes) if it is your first vaginal birth, and often sooner if you have had a previous vaginal birth or there are other concerns.
 - In labour, we will watch the baby's heart rate continuously with the CTG machine until the baby is born.
 - You can usually have whatever pain relief you prefer including an epidural if you would like one.
- A VBAC attempt is generally safer and more successful if the labour starts naturally. However, sometimes there may be a reason to bring the labour on.
 - This is called having an **induction** and it will usually involve giving you a medication (oxytocin) to make the uterus contract
 - If an induction is necessary, our team will discuss it with you and you will have the chance to think again about your options.
 - At that point, you may decide to continue with your plan for labour or you may decide to choose a caesarean.

In the same way, if the labour starts naturally but is progressing slowly because the contractions are not strong enough, our team will discuss with you the option of giving medication (oxytocin) to make the contractions stronger (called labour augmentation) or instead, moving to a caesarean.

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Conclusion

Getting ready to have a baby is an exciting and wonderful time. However, with 1 in 3 births in Australia now being by caesarean, many women have to think about how they would like to give birth if they had a caesarean last time and they have only had one caesarean.

We know that there is a lot to think about in making your choice between a VBAC attempt or ERCS and you may be feeling at this point that it's pretty confusing. In addition, there is no doubt that several of the risks discussed for both types of birth are a bit 'scary' but be reassured that the chance of something going wrong with your baby's birth is very small.

The key things to consider as you make your decision are your chance of a successful VBAC, how many children you plan to have, how you feel about your previous birth experience(s), and how you assess the advantages and small risks of both options – for this baby, the next baby and your own health. Our staff will help you work through this process. And remember, no matter which way you finally choose to give birth, in nearly all cases, everything goes well for both mother and baby.



We welcome further feedback on this brochure as a way of continually improving our service.

Send your feedback to:

WSLHD-Get_Involved@health.nsw.gov.au

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TABLE 1 Estimated approximate chance of VBAC success

	Approximate Chance of VBAC Success %
Prior Vaginal Birth overall	85 – 90%
Prior Successful VBAC of similar sized or larger baby	> 90%
If no prior Vaginal Birth , success is based on previous CS indication	
Spontaneous labour this time and previous CS due to:	
Non-recurrent cause such as breech or placenta previa	80%
Non-reassuring CTG (fetal distress)	65%
Failure of dilatation or descent	60%
Effect of obesity : 10 – 15% lower for BMI ≥ 30 v < 25; 25% lower for BMI ≥ 40	
Effect of induction : 10 - 15% lower	
Examples	
Prior vaginal birth (prior successful VBAC)	85 - 90% (>90%)
All the following are related to no prior vaginal birth :	
Previous CS for non-recurrent cause, BMI < 30, spontaneous labour	80%
Previous CS for non-recurrent cause, BMI < 30, induction of labour	65 - 70%
Previous CS for non-recurrent cause, BMI ≥ 30, spontaneous labour (BMI ≥ 40)	65 - 70% (55%)
Previous CS for non-recurrent cause, BMI ≥ 30, induction of labour (BMI ≥ 40)	55% (40%)
Previous CS for fetal distress, BMI < 30, spontaneous labour	65%
Previous CS for fetal distress, BMI < 30, induction of labour	50 - 55%
Previous CS for fetal distress, BMI ≥ 30, spontaneous labour (BMI ≥ 40)	50 - 55% (40%)
Previous CS for fetal distress, BMI ≥ 30, induction of labour (BMI ≥ 40)	40% (25%)
Previous CS for failure of descent or dilatation, BMI < 30, spontaneous labour	60%
Previous CS for failure of descent or dilatation, BMI < 30, induction of labour	45%
Previous CS for failure of descent or dilatation, BMI ≥ 30, spontaneous labour (BMI ≥ 40)	45 - 50% (35%)
Previous CS for failure of descent or dilatation, BMI ≥ 30, induction of labour (BMI ≥ 40)	35% (20%)

Effect of **Other Factors**

For women **older than 35 years** and when the pregnancy goes **past 40 weeks**, the chance of VBAC success might also be lower. On the other hand, if a woman goes into labour before 37 weeks, success is similar to birth at term but the chance of uterine rupture is lower. Success is reduced with **bigger babies** (as in all labours). However, the baby's actual weight can't be known until after birth and ultrasound in late pregnancy is often not accurate in estimating how big a baby is. Therefore routine late pregnancy ultrasound is not useful in deciding on a VBAC attempt and is not generally recommended. A baby that seems big for a particular woman does not mean she cannot attempt a VBAC. However, the reduced chance of success and possible increased chance of uterine rupture should be taken into account when making the decision.

Online VBAC Calculator:

The USA MFM Units VBAC Calculators may also be used to aid counselling both during pregnancy and on the day of birth

<http://mfmu.bsc.gwu.edu/PublicBSC/MFMU/VGBirthCalc/vagbirth.html>

or just put 'MFMU VBAC calculator' into your search engine.

Note, there are **two calculators**, one for pregnancy and one for the day of birth.

The second calculator is found via 'CLICK HERE' at the bottom of the first calculator.

Note also that USA success rates vary significantly between ethnic groups - hispanic women have 15 - 20% lower & black women 10% lower success than white; how Australian non-white ethnic groups compare to American ones is not known.

Even so, it is a useful tool.

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TABLE 2 Possible negative outcomes for this baby, the woman, and future pregnancies

Outcome	Chance per 1000
Chance of death or serious injury to this baby from choosing a VBAC that wouldn't happen if an Elective Repeat Caesarean Section at 39 weeks was performed	3
The above small increased risk to the baby is made up of:	
Stillbirth after 39 weeks before labour	1
Death, brain damage or injury due to uterine rupture	1
Death, brain damage or injury due to complications that can occur in any vaginal birth	1
In addition, there is also a small increase in less serious complications such as minor injury to the baby or having an infection that needs treatment with antibiotics which can occur with any vaginal birth Altogether this means that about 99% of babies will not suffer any increased risk of harm from a VBAC attempt.	10
Chance of breathing difficulties in the baby – this usually only lasts for a few hours or days but can sometimes be very serious	
Successful VBAC	5
Emergency CS	10
Elective CS at 39 weeks	15
Elective CS at 38 weeks	60
Elective CS at 37 weeks	110
Chance of the uterus rupturing (tearing open) during a VBAC attempt	
No oxytocin	5
With low dose oxytocin	10
With high dose oxytocin	20
Chance of moderate complication for the woman during birth (injury to organs and tissues, heavy bleeding, infection)	
Successful VBAC (higher if instrumental birth, lower if spontaneous birth)	30
Elective CS	55
Emergency CS (unsuccessful VBAC attempt)	140
Future pregnancies after this one.	
Problems with the placenta sitting too low in the uterus (placenta previa) or being dangerously stuck to the wall of the uterus (placenta accreta) are uncommon, but they become more common with each previous CS. Such problems can result in large bleeding during birth, blood transfusion, loss of the uterus (hysterectomy) and the need to deliver the baby early.	
Chance of placenta praevia	
At 2 nd CS (ie after 1 previous CS)	15
At 3 rd CS	20
At 4 th CS	30
90% of placenta praevia cases do not result in large bleeding or loss of the uterus (hysterectomy), but 10% of cases can - mostly because of associated accreta	
Chance of placenta accreta	
At 2 nd CS	2 (15% of previa)
At 3 rd CS	6 (30% of previa)
At 4 th CS	20 (60% of previa)
Placenta accreta usually results in large bleeding, large blood transfusion and loss of the uterus (hysterectomy)	
Outcome for the baby if the pregnancy has placenta previa / accreta	
Chance of being born preterm	400
Chance of dying	5

