

Vaginal and Cesarean Birth – What is best for me and my baby?

No one but you can decide what's best for you and your baby. That's why we've collected this important information to help you make an informed choice about the way your baby is born. As you go through this information you may find it helpful to make a list of questions and /or concerns to discuss with your doctor or midwife at your next appointment.

Learning more about Elective Cesarean Section

If you would like more information about having your baby by a planned or elective cesarean section when there isn't a medical reason to do so, we have created a video just for you. You can find it at www.powertopush.ca/ElectiveCSection.

This 15 minute video covers:

- The risks associated with cesarean sections for you and your baby;
- The effect it may have on your future births;
- What happens on the day of a C-section;
- When you can go home from the hospital;
- What recovery from a C-section is like; and
- What happens if you go into labour before the planned C-section date.

You can also make an appointment to talk to a clinical counsellor at BC Women's Hospital about the feelings you have surrounding both decisions. The clinical counsellor can also help you with your decision making process.

Comparing the Risks

Having a baby always involves a small amount of risk of complications, no matter what kind of birth you have. The risks are small for both vaginal and cesarean birth. Comparing the risks and benefits of a cesarean birth versus a vaginal birth can help you make an informed choice. You may find that some risks are more important to you than others or that you wish to minimize the overall risk to you or your baby.

The numbers below were collected from various trusted sources; if not otherwise noted the source is the UK's *National Institute for Health and Care Excellence's Clinical Guideline - Caesarean Section* published in 2004. More information about each source is available in the reference section on the last page.

Risk of Problems Related to Women's Health

The following two tables give an overview of the risks to your health when comparing cesarean birth with vaginal birth.

Percentage of women affected by complications around the time of birth			
Complication	Cesarean	Vaginal	How Much More/Less Likely With a Cesarean?
No difference between cesarean and vaginal birth or unclear data:			
Uterine/vaginal prolapse (sagging vaginal wall) ^c	5%	5%	same
Hemorrhage (>1000 ml) ^b	.5%	.7%	same ^d
Developing a blood clot (thromboembolism) [Conflicting study results]	0.00% ^v 0.06% ⁱⁱⁱ	0.03% ^v 0.03% ⁱⁱⁱ	3 more per 10,000 ^d 3 less per 10,000 ^d
Less likely after cesarean birth:			
Pain in the perineum (area between anus and vagina)	2%	5%	300 less per 10,000
Urinary incontinence 3 months after birth	4.5%	7.3%	280 less per 10,000
Injury of genital tract (laceration of cervix, uterine incision)	0.6%	0.8%	20 less per 10,000
More likely after cesarean birth:			
Hysterectomy ⁱⁱ	0.6%	0.2%	40 more per 10,000
Cardiac arrest ⁱⁱⁱ	1.9%	0.4%	150 more per 10,000
Injury to bladder ^a	0.1%	.003%	9.7 more per 10,000
Injury to ureter (tube connecting kidney and bladder) ^a	.03%	.001%	2.9 more per 10,000
Needing further surgery (e.g., D&C, laparotomy) ^a	0.5%	.03%	47 more per 10,000
Major infection of the reproductive tract ⁱⁱⁱ	6.0%	2.1%	390 more per 10,000
Maternal mortality (death of woman)	0.0082%	0.00169%	6.5 more in 100,000
Length of hospital stay	3 to 4 days	1 to 2 days	1 to 3 more days
Severe headache/other complications from anesthetic ^v [Conflicting study results]	0.4% 0.53%	0.3% 0.21%	1 more per 1000 319 more per 100,000
Return to hospital due to complications/concerns ⁱ	1.9%	0.7%	40 more per 10,000
Pain interfering with routine activity ⁱⁱ	25-34%	8-12%	1300 more per 10,000
Note: The figures in the tables are the best estimate we have, but it is impossible to be precise about the effects, because different studies often give different results.			
a It is not possible to know if the increased risk is a result of a pre-existing reason for cesarean birth or cesarean itself.			
b These conditions appeared even with the use of prophylactic medications.			
c Based on more than one study.			
d Differences are not statistically significant.			

Note: When comparing this data it is important to understand that the risks of cesarean section are from best available data but may be over-estimated as many things can influence outcome besides the method of delivery. It is also important, when making your decision, to be aware that every woman in labour has a background risk of needing a cesarean section (15-35% depending on location). Cesarean sections performed in labour pose increased risks compared to those performed prior to labour starting and therefore the risks reported for vaginal delivery may be under-estimated.

Percentage of women affected by complications in future pregnancies			
Complication	With previous Cesarean	Vaginal	How Much More/Less Likely With a Prior Cesarean?
More likely with a previous cesarean birth:			
Having another c-section in the future ^{vi}	79%	31%	48 more per 100
Stillbirth (death of baby in uterus) in future pregnancy ^a	0.4%	0.2%	2 more per 1000
Tearing of uterus in future pregnancy ^a	0.4%	.01%	39 more per 10,000
Having no more children ^a	42%	29%	13 more per 100
Placenta previa (covers cervix) in future pregnancy ^b	0.4 to 0.8%	0.2 to 0.5%	20 to 60 more per 10,000
Note: The figures in the tables are the best estimate we have, but it is impossible to be precise about the effects, because different studies often give different results.			
^a It is not possible to know if the increased risk is a result of a pre-existing reason for cesarean birth or cesarean itself.			
^b Based on more than one study.			

Risk of Problems Related to Baby's Health

This table shows an overview of the risks to baby's health that are related to cesarean and vaginal birth.

Percentage of babies affected by complications following a cesarean birth when compared with a vaginal birth			
Complication	Cesarean	Vaginal	How Much More/Less Likely With a Cesarean?
No difference between planned cesarean and vaginal birth:			
Neonatal mortality ^a (death of baby; excludes breech)	0.1%	0.1%	same
Brachial plexus injuries ^a	Overall risk is 0.05%		same
Cerebral palsy ^a	Overall risk is 0.02%		same
Intracranial hemorrhage ^{v, a, b}	0.00%	0.01%	same ^d
More likely after a planned cesarean birth:			
Laceration of baby's skin	0.02%	0.001%	1.9 more per 10,000
Respiratory difficulties (morbidity) ^a	3.5%	0.5%	3 more per 100
Admission to the special care nursery ^{v, a}	14%	6.3%	76 more per 1000
Note: The figures in the tables are the best estimate we have, but it is impossible to be precise about the effects, because different studies often give different results.			
^a It is not possible to know if the increased risk is a result of a pre-existing reason for cesarean birth or cesarean itself.			
^b These data are averages.			
^c These conditions appeared even with the use of prophylactic medications.			
^d Differences are not statistically significant.			

Concerns about Childbirth

As well as thinking about your health and that of your baby, you are probably having other thoughts, concerns, and feelings about the birth. You are not alone.

Some common concerns are...

Pain: No matter which way you decide to have your baby, you will feel some pain during and/or after childbirth. If you are concerned about coping with pain during a vaginal birth, there are several pain medications and procedures that are very helpful and that work very well. If you choose a cesarean birth you will likely have some pain following the surgery. Again, there are medications that can help. It is important to talk about your options with your doctor or midwife.

Anxiety: It is normal to have some anxiety about childbirth, especially if this is your first childbirth experience or if you have had a difficult birthing experience in the past. There are several therapeutic methods available to reduce anxiety during labour and birth. It is helpful to talk to a counsellor or your care provider about your feelings.

Recovery time: If you are having a vaginal birth you will very likely spend less time in the hospital than if you are having a cesarean birth. This is an important consideration to many women because it affects how soon you will be home caring for your new baby and the rest of your family. If you decide on a cesarean birth it is helpful to arrange for extra support to help you during your 4 to 6 week recovery period.

Involvement in the birth: With a vaginal birth you are usually able to move around during labour and with a cesarean birth you will need to stay still during surgery. At BC Women's Hospital, we promote skin to skin contact and early breastfeeding. You are usually able to hold your baby right after birth, which will help with bonding and breastfeeding. Even with a cesarean, early skin to skin and breastfeeding are supported as long as mom and baby are well.

Planned versus unplanned birth: The exact date of a vaginal birth cannot be predicted; but for most women labour will naturally begin between the 37th and 41st weeks of pregnancy. A planned cesarean birth is usually scheduled during your 39th week of pregnancy.

Reference List

Below is a list of the sources that were used to provide the information in this handout and accompanying video:

- I. Declercq E, Barger M, Cabral HJ, et al. **Maternal outcomes associated with planned primary cesarean births compared with planned vaginal births.** *Obstet Gynecol.* 2007; 109: 669–77.
- II. Declercq E, Cunningham D, Johnson C, Sakala C. **Mothers' reports of postpartum pain associated with vaginal and cesarean deliveries: results of a national survey.** *Birth.* 2008; 35: 16–24.
- III. Liu S, Liston RM, Joseph KS, Heaman M, Sauve R, Kramer MS. **Maternal mortality and severe morbidity associated with low-risk planned cesarean delivery versus planned vaginal delivery at term.** *CMAJ.* 2007; 176:455–460.
- IV. National Institute for Health and Care Excellence. **NICE 2004 Clinical Guideline Caesarean Section.**; 2004.
- V. National Institute for Health and Care Excellence. **NICE 2011 Clinical Guideline Caesarean Section.**; 2011 (last updated August 2012). (Available at:) www.nice.org.uk/guidance/CG132. (Accessed September 1, 2016).
- VI. Perinatal Services BC. **Examining cesarean delivery rates in British Columbia using the Robson ten classification. Part 1: understanding the ten groups.** *A Perinatal Services BC surveillance special report. Perinatal Services BC: December.* 2011;1 (Available at:) <http://www.perinataleservicesbc.ca/Documents/Data-Surveillance/Reports/SurveillanceSpecialReportRobsonTenClassificationDec2011.pdf>. (Accessed September 1, 2016).