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Risk associated with Caesarean Birth

This information is provided with assistance from the Internet Publication by the [International Cesarean Awareness Network](#). It has been modified by Dr Brinsmead as a consequence of his three decades of experience in obstetrics. For a comprehensive, contemporary and scientific analysis of the pros and cons of caesarean versus vaginal birth see www.nice.org.uk

Introduction

When the option of a Caesarean is raised, then the risks and benefits of that procedure need to be weighed. This includes looking at the added benefits and possible risks of doing a Caesarean as compared to possible long and short term difficulties arising from giving birth vaginally. Sometimes the benefits of the Caesarean will outweigh the risks, and sometime the option of a vaginal birth will outweigh the risks of the Caesarean.

The information given here is not designed to alarm women who require a Caesarean but rather to provide advice to those women considering the alternatives of vaginal and Caesarean birth.

The principal problem is that, despite over 50 years of modern obstetric practice and much research, we are unable to predict with certainty who will require a Caesarean birth.

In this country more than one baby in every four (25% of all pregnant women) is currently delivered by Caesarean section and this rate is even higher in some regions. There is a fierce debate, even amongst the experts, whether such a rate is necessary or desirable. However, it has left many women with the attitude that, if I have a 1:4 chance of having a Caesarean birth and, if you can't tell me now whether that will be the case, I would much rather have a Caesarean planned rather than labour for hours and then discover that a Caesarean is required!

This sounds like taking the easy option and many doctors agree. This explains, in part, the reason that the rate of Caesarean birth is continuing to increase. However, there are some considerations that need to be taken into account as follows:

Longer Hospital Stay and Recovery Time. Two to five days in hospital is the common length of stay after a vaginal birth whereas it is about twice as long after a Caesarean birth. Most women will be back to all normal activities within a week after a vaginal birth whereas the recovery period after a Caesarean can extend to between three and six weeks.

Risk of Death: Caesarean birth is major surgery, and, as with other surgical procedures, risks are involved. The estimated risk of a woman dying after a Caesarean birth is less than one in 10,000 but the risk of death after a vaginal birth is less than one in 50,000.



These actual risks vary amongst the studies performed but most authorities conclude that, overall, the extra risk associated with a caesarean birth is between 2 and 10-fold higher than for vaginal birth. Individual medical conditions may make the risk of death during vaginal birth higher than Caesarean birth in some instances or vice versa.

Infection: The uterus or nearby pelvic organs such as the bladder or kidneys can become infected.

Decreased Bowel Function. The bowel sometimes slows down for several days after surgery, resulting in distension, bloating and discomfort. Bowel obstruction as a consequence of adhesions or infection is a rare outcome.

Respiratory Complications: General anaesthesia can sometimes lead to pneumonia. Caesarean section has a greater risk overall of thrombosis (blood clots) in the legs and pelvis that can embolise (travel) to the lungs.

Reactions to Anaesthesia: Unexpected responses but serious reactions to anaesthetic agents are very rare but they can be life threatening.

Risk of Additional Surgery: In a few instances damage can occur to bladder, bowel, or ureters (the tubes that brings urine to the bladder from the kidneys). A few women require emergency hysterectomy during a Caesarean birth.

Infertility: Many studies do not show any difference in a woman's fertility after a Caesarean birth when compared to vaginal birth but, in a combined analysis, it was concluded, that fewer women have another baby after a Caesarean compared to those who had a vaginal birth.

All of the above problems can occur during or as a consequence of a vaginal birth but all are a little more common with a Caesarean birth.

Psychological Risks: Some women have lingering and even sometimes a disabling regret that they did not achieve or even attempt a vaginal birth. For many, it is a very important part of being woman.

Future Births: Women who have had a Caesarean birth are more likely to have Caesarean births subsequently. If they attempt vaginal birth there is a small risk of uterine rupture and a requirement for more monitoring during the attempted vaginal birth. Placenta previa (placental implantation low in the uterus with a subsequent risk of haemorrhage) and placenta accreta (abnormal adherence of the placenta requiring hysterectomy) both rise in frequency with each Caesarean section performed. The risk of stillbirth after a previous Caesarean section is about double that of a patient whose previous baby or babies were vaginally born. Whether this increased rate is due to the underlying reason that Caesarean birth was required or whether the increased risk of stillbirth is due to the Caesarean operation or its sequelae is unknown.

Risks to the Baby include:

Premature Birth: If the due date was not accurately calculated, then the baby could be delivered too early.

Breathing Problems: Babies born by Caesarean are more likely to develop breathing problems such as transient tachypnea (abnormally fast breathing during the first few days after birth). About one baby in every hundred will require artificial ventilation because of immature lungs and this rate doubles for every week short of 40 weeks if a Caesarean is performed without waiting for the onset of labour. About 35 of every 1000 babies born by caesarean



section have breathing problems just after the birth, compared with 5 of every 1000 babies after a vaginal birth.

Fetal Injury: Small skin injuries to the baby can sometimes occur when the uterus is incised to access the baby.

Vaginal Birth after a Previous Caesarean (VBAC)

There is ongoing serious debate about the safety of a vaginal birth when a mother has had a previous Caesarean section. In summary, one could say that, if all goes well, then it is certainly less traumatic and more pleasant for a mother to have a vaginal birth. However, if things go wrong, then the consequences can be serious for both baby and mother. This relates mostly to the risk of uterine rupture during attempted vaginal birth. This is a rare event occurring in about one in every 200 VBACs. The risk of death for a baby during VBAC is about twice that for a baby who is being born to a mother without a uterine scar.

This could be regarded as a good reason to avoid a Caesarean the first time if more than one baby is planned.

Summary of the effects of caesarean section compared to vaginal birth

More likely after caesarean section:	Caesarean Section and Vaginal Birth have the same rate	Less likely after caesarean section:
<ul style="list-style-type: none"> • Pain in the abdomen (tummy) • Bladder injury • Injury to the tube that connects the kidney and bladder (ureter) • Needing further surgery • Hysterectomy (removal of the womb) • Admission to intensive care unit • Developing a blood clot • Longer hospital stay • Returning to hospital afterwards • Death of the mother • Having no more children • In a future pregnancy, the placenta covers the entrance to the womb (placenta praevia) • Tearing of the womb in a future pregnancy • In a future pregnancy, death of the baby before labour starts 	<ul style="list-style-type: none"> • Losing more than 1 litre of blood (haemorrhage) before or after the birth • Infection of the lining of the womb • Injuries to the womb or genital organs, such as tearing around the neck of the womb • Bowel incontinence (no control of bowel actions) • Postnatal depression • Back pain • Pain during sexual intercourse 	<ul style="list-style-type: none"> • Pain in the area between the vagina and anus (the perineum) • Bladder incontinence 3 months after the birth • Sagging of the womb (prolapse) through the vaginal wall

Other considerations

Women usually spend longer in hospital after a caesarean section (on average, 3–4 days) than after a vaginal birth (on average, 1–2 days). Women who have a caesarean section are less likely to start breastfeeding in the first hours after the birth, but if they do start, they are just as likely to continue breastfeeding as those who have a vaginal delivery.

Women who have a caesarean section are more likely to have one again in the future, although there is not enough evidence to know why this is.



Risks to your baby from Vaginal Birth

In general, caesarean section does not increase or decrease the risk of your baby having an injury to the nerves in the neck and arms, or bleeding inside the skull, having cerebral palsy or dying. These are very rare complications, and affect less than 20 in 10,000 babies.

How many women does this affect, out of every 10,000 women?

	Caesarean section	Vaginal birth
More likely after a caesarean section		
Pain in the abdomen (tummy)	900	500
Bladder injury*	10	0.3
Injury to the tube that connects the kidney and bladder	3	0.1
Needing further surgery*	50	3
Hysterectomy (removal of the womb)*	Up to 80	1 or 2
Admission to intensive care unit *	90	10
Developing a blood clot*	Between 4 and 16 overall (no detailed figures available)#	
Longer hospital stay	3 to 4 days	1 to 2 days
Returning to hospital afterwards	530	220
Death of the mother*	0.82	0.17
Having no more children*	4200	2900
In a future pregnancy, the placenta covers the entrance to the womb (placenta praevia)	40–70	20–50
Tearing of the womb in a future pregnancy*	40	1
In a future pregnancy, death of the baby in the womb before labour starts*	40	20
Less likely after caesarean section		
Pain between the vagina and anus (the perineum)	200	500
Bladder incontinence 3 months after the birth	450	730
Sagging of the womb (prolapse) through the vaginal wall	500 overall (no detailed figures available)**	

*It is not clear whether the increased risk of these problems is a result of a caesarean section or because of the reasons for needing a CS.

Note: #Very rarely, women develop a blood clot after having a baby. This happens to between 4 and 16 of every 10,000 women who have a baby, and the risk is nearly four times higher after a caesarean section than after a vaginal birth.

**Sagging of the womb through the wall of the vagina (called a prolapse) is uncommon – it affects about 500 of every 10,000 women who have a baby. The risk is nearly twice as high after a vaginal birth than after a caesarean section.

From the United Kingdom's NHS National Institute for Clinical Excellence (NICE) Patient Information about Caesarean Birth published April 2004 – see www.nice.org.uk for the complete document.

Revised M Brinsmead June, 2015

