

Enhanced recovery after elective caesarean section

Information for women and birth partners



Contents

Introduction	3
Before the operation	4
<ul style="list-style-type: none">• Your pre-assessment appointment• Anaesthetic• Medicines• Giving your consent for your planned caesarean section• Risks associated with surgery	
On the day of surgery	8
<ul style="list-style-type: none">• In theatre• Once your baby has been born	
After surgery	10
<ul style="list-style-type: none">• Pain relief• Getting out of bed and walking• Blood loss after birth• Your catheter• Blood clots• Reviewing your wellbeing	
Going home	13
<ul style="list-style-type: none">• Midwife support at home• Wound care• Headaches• Lifting• Rest• Diet• Driving• Activities• Postnatal check• Intercourse• Future pregnancies• Support for you	
Anaesthetic risk table	18

Welcome to the enhanced recovery after planned caesarean section programme

You have been given this booklet because you are due to have a planned (elective) caesarean section. This is an operation which allows your baby/babies to be born through a surgical cut in your lower abdomen. Your doctor or midwife will have already discussed the reason for this with you.

At Princess Anne Hospital we run an enhanced recovery programme. Enhanced recovery is an evidence-based approach designed to help people recover more quickly from surgery, including caesarean section. Our enhanced recovery programme aims to help you to be well enough to go home from hospital the day after surgery. This booklet explains the care you can expect to receive immediately before your caesarean, on the day of your surgery and during the first few days following your baby's birth. We will work closely with you and your birth partner during this time, to help ensure a speedy recovery.

You can expect us to:

- help make sure that you are able leave hospital as soon as you are ready
- ensure that you have a plan in place for your postnatal care
- support you with caring for your baby while you recover
- do our best to make sure your stay is as comfortable as possible

If you have any further questions or concerns about the enhanced recovery programme, please speak to your midwife.

Your pre-assessment appointment

Before your caesarean section you will be offered a pre-assessment appointment to assess your current health, including:

- your temperature
- your pulse and blood pressure
- your weight

Your midwife will assess your baby's wellbeing by listening to their heartbeat.

You will be offered a blood test so that we can check your iron levels and blood group, and you will be asked to provide a urine sample.

Your midwife will ask you about your current medications and measure you for surgical stockings, which help prevent blood clots (known as deep vein thrombosis or DVT) from forming in your legs.

Other things to discuss at your pre-assessment appointment

Eating and drinking

The table below outlines when you can and can't eat before your surgery, and when to take your medication. You can talk to your midwife about this in more detail at the appointment.

Day before your caesarean section	<ul style="list-style-type: none">• Eat and drink as normal.• Take your ranitidine tablet at 10pm (this is a medicine known as an antacid which works to neutralise acid in your stomach).
Morning of your surgery	<ul style="list-style-type: none">• Don't eat anything after 12midnight (you can drink water until 6am).• At 6am take your ranitidine and metoclopramide (antacid) tablets.• We will give you a PreOp drink (a carbohydrate drink) to take your tablets. Do not drink anything else after this. If you are diabetic, you should take your tablets with a large glass of water instead.

Anaesthetic

Your anaesthetist (specialist doctor) will discuss the different anaesthetic (pain relief) options available with you at the pre-assessment appointment, and again on the day of surgery. Following this discussion you will be asked to sign a consent form giving the anaesthetist your permission to use the different types of anaesthesia.

There are two main types of anaesthetic:

- **regional anaesthetic** an injection in your back (either as a spinal or epidural or a combination of both). Regional anaesthetic allows you to remain awake during your caesarean section, without feeling any sensation in your lower body. This is usually safer for you and your baby, and allows you and your birth partner to experience the birth together.
- **general anaesthetic** occasionally a general anaesthetic (which sends you to sleep) may be more appropriate for you or your baby.

The risks associated with each type of anaesthesia are summarised in the table at the end of this booklet. Please read the 'Your anaesthetic for caesarean section' factsheet which is available at: www.labourpains.com for more information.

Your anaesthetist will also discuss the pain relief available after your caesarean section, and answer any questions that you may have.

Giving your consent for the planned caesarean section

The decision to have a caesarean section will have been discussed with you before your pre-assessment appointment and the potential date arranged. Before your caesarean section you will be asked to sign a consent form. This is a legal document stating that you give your permission for the operation to take place. It is therefore important that you understand why you are having a caesarean section and the risks involved. These are summarised on the next page.

Risks associated with surgery

- **Bleeding** can occur during or after the caesarean. It would be unusual for this bleeding to be enough for you to require a blood transfusion (when blood is given to replace blood lost). However, before your caesarean section you will be asked for your consent to a blood transfusion should one become necessary. You must tell your midwife or obstetrician (specialist doctor) if you would not want a blood transfusion. In extreme cases (1 in 200) removal of the womb (a hysterectomy) is necessary in order to control the bleeding.
- **Blood clots** (deep vein thrombosis and pulmonary embolism) can occur in the legs or, more rarely, in the lungs, affecting 4 to 16 women in 10,000. This is more likely if you are overweight, smoke or have a family history of blood clots. You will be offered special stockings immediately after your baby is born to reduce this risk. Please refer to page 11 for more information. If you are at a higher risk of developing a blood clot you may also need a daily injection of a medicine that reduces the blood's ability to clot (an anticoagulant). This will be discussed with you if it is appropriate.
- **Infection** in the wound or womb following a caesarean section affects about 6 in 100 women. You will be given a preventative body wash at your pre-assessment appointment and antibiotics during your operation to reduce this risk.
- **Bladder or bowel damage** Your bladder and bowel lie close to your womb and have to be moved out of the way during the operation. A thin tube (urinary catheter) will be inserted into your bladder to keep it empty during the operation. The risk of damage to your bladder or bowel is rare; affecting 1 in 1,000 women.
- **Pain** About 1 in 10 women will experience ongoing scar or abdominal pain in the first few months following a caesarean section.
- **Cut to baby** There is a small risk of a cut to your baby during the caesarean section which affects between 1 and 2 babies in 100.

- **Other uncommon and rare complications** There may be cause for further surgery following your caesarean (5 in 1,000 women) or there may be a complication that would require us to monitor you more closely after surgery in the intensive care unit (9 in 1000 women). Deaths as a result of caesarean section are very rare (1 in 12,000).

If you are unsure about why a caesarean section has been recommended or have any other questions regarding risks please ask your midwife or obstetrician.

Further information about consent

Sometimes further investigations such as x-rays may be required in response to something that is discovered during the operation. Occasionally, information is gathered for research purposes. If this is relevant, you may be asked for consent to use your tissue samples or to take still or moving images (videos). This will always be discussed with you first and you will have the opportunity to ask any questions you may have. Any samples of tissue taken will be stored as part of your health records.

Only the procedures that you have consented to will be carried out unless it is necessary to save your life or to prevent serious harm to your health. You can list on your consent form any particular procedures that you do not want to be carried out without talking to you first. Please speak to your midwife at your pre-assessment appointment if you have any questions about this.

Medicines

If you take regular medication, please bring it with you on the morning of your caesarean section. It is important that you bring it in the original packaging or containers, as it cannot be used in hospital if it is transferred into anything else. If there are any medicines you need to stop before the operation this will be discussed with you at your pre-assessment appointment.

On the day of surgery

On the morning of your caesarean section you:

- should not have anything to eat or drink after your PreOp drink at 6am
- should shower using the infection prevention body wash you were given at your pre-assessment appointment.

Please arrive at Labour ward reception, D level, Princess Anne Hospital at **7.30am** on the date given on your admission letter. Unfortunately we are not able to confirm the time of your caesarean in advance.

When you arrive your midwife will assess your wellbeing by checking your blood pressure, pulse, temperature and urine sample, as well as checking your baby's heartbeat and position. You will be fitted with your surgical stockings and given your theatre gown. Your operation site will be checked and if necessary special clippers will be used to remove any hair along your bikini line. Your partner will also be given clothes to wear in theatre.

It is a good idea for you to have your baby's clothes ready for after the caesarean section. Please include a warm hat and cardigan as well as a vest, babygro, and nappy.

Your anaesthetist will discuss your anaesthetic and pain relief options, answering any questions you may have. Your obstetrician will go through the consent form with you and ask you to sign it. Finally, the recovery team will talk you through a checklist before taking you to theatre.

In theatre

Once in theatre you will have a cannula (a thin plastic tube) inserted, usually into your hand or forearm. It allows your anaesthetist to give you fluids and medications more quickly by giving them straight into a vein. The anaesthetist will then give you your spinal anaesthetic. Once you are comfortable, your midwife will insert a catheter (plastic tube) to empty your bladder and drain your urine. The obstetrician will then begin the caesarean section.

When your baby has been born

Once your baby has been born and an initial assessment of their wellbeing has been completed, you will have the opportunity to hold and cuddle them against your skin. This type of skin-to-skin contact has been shown to offer benefits including helping to regulate baby's temperature, heart rate and breathing, and to help support breastfeeding. Usually you will start skin-to-skin contact in theatre, but if this isn't possible for any reason, you will be encouraged to hold your baby against your skin in the recovery area. Your partner can enjoy skin-to-skin contact as well.

Your care immediately after the caesarean section

Following your caesarean section, your wellbeing will be assessed through regular monitoring of:

- your blood pressure, pulse and temperature
- whether you have any pain or discomfort
- how well you are able to tolerate fluids and food
- how well you are able to move around

You will be offered support as you feed and care for your baby. You and/or your partner will also be encouraged to continue skin-to-skin contact with your baby. This care is usually undertaken within the labour ward recovery area. If you have had a general anaesthetic however, you will be taken to the theatre recovery area for closer observation before returning to labour ward. To respect the privacy of other recovering patients, your partner won't be able to stay with you in theatre recovery.

Eating and drinking

After your caesarean section you will continue to be given fluid directly into a vein to ensure you remain hydrated until you feel able to drink fluids normally. Your cannula will then be removed. While you are in labour ward recovery you will be offered a light snack, such as a sandwich or toast and a drink. If you don't feel able to eat you may be encouraged to chew gum. Chewing gum has been shown to help the body to produce stomach acid, which encourages your stomach function to return to normal. When you are transferred to the postnatal ward you will be encouraged to drink freely (although you are advised to avoid fizzy drinks). You should aim to be eating normally on the evening of your operation.

After surgery

Pain relief

We will talk to you about your pain levels and you will be offered regular paracetamol and ibuprofen. If you experience pain please let the midwife or recovery staff nurse looking after you know as additional pain relief (oral morphine) can be offered if you need it. All the pain relief you are offered will be safe to use while breastfeeding.

If appropriate, you will be offered a pain-relieving suppository in your back passage (rectum) immediately after your caesarean as this has been shown to reduce pain levels after surgery. You will be offered a second pain-relieving suppository 12 hours after your caesarean section to help reduce your pain levels (this is usually given at the same time as your urinary catheter is removed). This will help you to remain mobile and care for your baby, as well as reduce the likelihood of you experiencing breakthrough pain. Breakthrough pain is the term used to describe recurrent pain or pain that occurs before your next dose of pain relief medicine is due. You are advised to ensure you have paracetamol and ibuprofen at home to use for pain relief once you leave hospital. Your midwife will discuss the frequency and dose with you before you go home.

Getting out of bed and walking

You will be encouraged and helped to get up as soon as possible and should aim to be out of bed on the evening of your operation. The numbness from the anaesthetic will take a few hours to wear off completely so you should only get out of bed for the first time when your midwife or a maternity care assistant is with you, in case your legs are still weak. You will be encouraged to continue walking around the ward, and once your catheter is removed walk out to the toilet. This not only aids your recovery but helps to reduce the risk of blood clots (please see page 11 for more information). On the morning after your operation you will be encouraged to walk around the ward in readiness for your discharge home.

Blood loss after birth

It's normal for women to lose lochia (a combination of mucous, tissue and blood) after birth until the womb renews its lining. Following your caesarean you will be given a drug called Syntocinon (a synthetic version of the naturally occurring hormone oxytocin) through your cannula into your vein. This will encourage your uterus to contract, helping it to shrink back to its normal size and reducing your blood loss. However, you may find that your lochia appears to increase when you first stand up. Please refer to the factsheet 'Blood loss – what to expect after the birth of your baby' for more information about what is normal and when you should ask for advice.

Catheter

Once your urinary catheter is removed, you will be encouraged to drink plenty of fluids. When you pass urine you will be asked if you had normal sensation (feeling) at the time. You will also be asked to measure the amount of urine you passed during your first two visits to the toilet. This will allow your midwife to assess your bladder function. You should discuss this further with your midwife, who will also be able to give you information about pelvic floor exercises which are important after having a baby.

Blood clots (deep vein thrombosis and pulmonary embolism)

Blood normally flows quickly and uninterrupted through our veins. However, sometimes clots can form that either reduce the blood flow or stop it completely. A deep vein thrombosis (DVT) is a blood clot in a vein, usually in the leg or pelvis, and its most common cause is immobility (not moving around enough, for example after surgery). A pulmonary embolism (PE) can occur if part of the blood clot breaks off and travels to the lung. In severe cases, PE can cause a collapse and may prove to be fatal.

During pregnancy, swelling and discomfort in both legs is common and does not always indicate a problem. However, it's important that you are aware of the symptoms of DVT and PE so that you know when to seek medical advice if you are concerned. To help reduce the risk of developing blood clots in your legs after your caesarean section you may receive a daily injection of medicine to thin your blood. It is also important for you to continue wearing your surgical stockings for at least seven days. They are to be worn day and night with a maximum 30 minute break each day.

Symptoms of a blood clot (DVT)

- pain in the calf or thigh associated with swelling of the limb - this may be worse when the foot is bending upwards towards the knee
- heat or redness, particularly in the back of the leg, below the knee
- you may find it difficult to put weight on the affected leg

DVT usually affects one leg.

Symptoms of pulmonary embolus (PE)

- difficulty in breathing or shortness of breath
- coughing up blood-stained sputum (a thick fluid produced in the lungs)
- chest pain that is often worse when breathing in
- collapse

If you have any of these symptoms while in hospital please inform your midwife. If you have been discharged home and have any of these symptoms please call the **obstetric day unit** on **023 8120 6303** for advice.

Reviewing your wellbeing

Once the doctors and midwives have assessed the wellbeing of both you and your baby, they may decide that it would be better for you if you do not follow the enhanced recovery programme anymore. This is likely to be because you need longer in hospital to recover. If a longer hospital stay is recommended we will discuss this with you, and you will be given the opportunity to ask any questions you may have.

Going home

The enhanced recovery programme aims to have you fit and well enough to go home the day after your caesarean section, so you should organise your transport home in advance. Please ensure that whoever is taking you home brings your baby's car seat to the ward, as you are unable to take your baby home without one.

You will be given a postnatal pack which includes:

- a summary of your notes and information for the midwives or maternity support workers that visit you at home. Your GP and health visitor will also receive a copy of this summary.
- information on what to expect over the forthcoming days in terms of yours and your baby's health.
- contact telephone numbers, including numbers for breastfeeding support groups, if required.

Your midwife will discuss your pain relief and any other medications you are to take home. You will be asked to confirm the address and contact details for your postnatal visits.

Midwife support at home

The midwife or maternity support worker usually visits you two or three times during your first ten days at home. Arrangements will be made for you to receive a visit on your first day at home; unfortunately we cannot guarantee a time for this visit. The health visitor will usually contact you ten days after the birth of your baby. Their role is to help you care for your new baby and family, in order to stay well and avoid illness.

You can always phone to speak to a midwife if you have any concerns, or would like some advice.

Between 9am and 5pm call:

023 8120 8513 or **07786 266529** (if you live in Southampton)

023 8074 7693 (if you live in the New Forest, Totton, Hythe, Lymington or Romsey)

At any other time call:

Broadlands Birth Centre on **023 8120 6012** or

New Forest Birth Centre on **023 8074 7690**

Wound care

Your wound will be covered with a dressing which should stay in place for about 48 hours after your caesarean section. You are advised to wear loose, comfortable clothing and cotton underwear, and keep the wound clean and dry. After 48 hours you should remove the dressing after having a shower (as it will be easier to remove if it's wet).

Stitches stop any bleeding from the wound and join the skin and muscle together. The thread used is dissolvable so they do not have to be removed. The stitches start to dissolve after about ten days and have usually completely disappeared after six weeks. Please discuss care of your wound and infection prevention with your midwife. Your midwife or maternity support worker will review your wound if you have any concerns.

Please let your midwife or GP know if:

- your wound becomes hot, swollen, weepy, smelly or very painful
- your wound starts to open
- you develop a temperature and flu-like symptoms.

If you experience any of these symptoms you may be developing an infection and need treatment with antibiotics.

Headaches

A headache can often be the result of tiredness or lack of sleep. If this does not clear after using pain relief (such as paracetamol and ibuprofen) or if you feel the headache is severe or is associated with other symptoms such as drowsiness or nausea, please telephone the **obstetric day unit** on: **023 8120 6303** for advice.

Lifting

You are advised not to lift anything for six weeks. You may begin light housework and lifting after this time, but avoid heavy lifting for three months. The exception to this is lifting your baby. If you already have older children or toddlers at home you will need to ask for extra assistance from family and friends to begin with, because toddlers are too heavy to lift (although they can have plenty of cuddles for reassurance). If you are shopping, try to carry

equal loads in each hand, not one heavy bag. It is worth remembering that car seats and prams can be quite heavy, so remember to ask for help when you require it.

Rest

Try to rest for at least one hour every afternoon. You will need someone to help you at home for at least two weeks. Where possible, make arrangements with family and friends who may be able to assist with daily household tasks.

Diet

It's important to eat properly. Try to eat three meals a day, containing plenty of protein such as meat, cheese, nuts, milk or fish to aid healing and help build you up. Also include fibre such as fruit, bran and vegetables to prevent constipation, which will cause strain on your abdominal muscles.

Driving

You may start driving when you feel comfortable, although you should check with your insurance company that you are covered to drive following major surgery. Before you start and before you put the keys in the ignition, try putting your foot on the brake while the car is stationary, as if you were doing an emergency stop. If this is painful you should wait a few more days and try again. Try to start with short journeys as you may get tired quickly.

Activities

A midwife will discuss postnatal exercises with you either in hospital or at home. We recommend that you continue with these once back home. Gentle sports such as swimming can be started when your wound is healed. It is not advisable to undertake energetic exercise such as aerobics until you feel comfortable. If you would like further advice or more information you can contact the **obstetric physiotherapist** on: **023 8120 4351** or refer to the 'Shape up after pregnancy leaflet'. Find this in your postnatal information pack.

Postnatal check

It is important that you attend a six week postnatal check appointment. This follow-up enables your doctor to check that everything is healing well and that there are no problems. This is usually with your GP, but you may be asked to come back to the hospital if there were complications that need to be discussed with the obstetrician. If you are thinking of going back to work, this is a good opportunity to discuss it with your doctor.

Intercourse

Sexual intercourse can be resumed when you feel comfortable. It will not damage your wound, but some positions may feel uncomfortable. Contraception is important because fertility can return quickly. Your midwife or doctor about this can discuss your future contraceptive needs with you.

Future pregnancies

It is advisable to leave a 12 month gap between pregnancies. This enables your body to recover from your caesarean and reduces your risk of scar separation during pregnancy and/or labour (2 in every 1,000 women). Your caesarean section may also put you at increased risk of the placenta growing in the wrong place on the wall of your womb in a future pregnancy. This could lead to difficulties at the time of delivery or excessive bleeding. These are uncommon complications affecting between 4 and 8 women in 1,000. Although having one caesarean section increases the likelihood of you having subsequent caesarean sections, 75% of women (3 in 4) with one previous caesarean have a subsequent vaginal birth (NICE 2007). You are therefore advised to discuss the implications of your caesarean section with your midwife or obstetrician.

Support for you

There are support groups which give friendly, practical advice to women who have experienced a caesarean section, and for those women hoping to have a vaginal birth having previously had a caesarean (known as VBAC for short).

www.vbac.com
www.labourpains.com

Notes

Risks associated with regional anaesthetic

Itching – this is common affecting around **1 in 10** to **1 in 3** women.

Significant drop in your blood pressure – this affects **1 in 5** women.

Pain or discomfort during your caesarean – you may require more drugs to help with pain, this happens to about **1 in every 20** women. **1 in 50** women may require a general anaesthetic.

Severe headache – if you have a spinal anaesthetic the risk of this is **1 in 500** and if you have an epidural for your operation the risk is **1 in every 100** women.

Large amount of local anaesthetic being injected into the spinal fluid – this can cause difficulty in breathing and is quite rare affecting **1 in 2,000** women.

Nerve damage – causing a numb patch on your leg or foot or a weak leg. This occurs in **1 in 100** women and will get better within six months of your caesarean. The chance of this lasting longer than six months is **1 in 24,000**.

Meningitis – this is very rare with a risk of **1 in 100,000**.

Abscess and haematoma (blood clot) at site of injection – this is very rare affecting between **1 in 50,000** and **1 in 168,000** women. The risk of either causing a severe injury including paralysis is very rare at **1 in 100,000**.

Large amount of local anaesthetic being injected into a vein – is very rare and occurs in **1 in 100,000** women.

Risks associated with general anaesthetic

Sore throat – this is common affecting **1 in 2** women.

Shivering – this is common affecting **1 in 3** women.

Muscle pains – this is common affecting **1 in 3** women.

Feeling sick – this is common affecting **1 in 10** women.

Chest infections – this is common affecting **1 in 10** women. But most are not severe.

Cuts and bruises to lips and tongue – this affects **1 in 20** women.

Anaesthetist unable to insert a breathing tube – this is uncommon affecting **1 in 250** women.

Being awake during the procedure – this is uncommon affecting **1 in 450** women.

Acid from your stomach going into your lungs – this is quite rare affecting **1 in 1000** women.

Damage to teeth – occurs **1 in 4,500** women.

Severe allergic reaction – this is rare affecting **1 in 10,000** women.

Death – very rare, affecting fewer than **1 in 100,000** women.

Brain damage – very rare, exact figures are unknown.

If you have any unanswered questions after your caesarean section, please contact Birth Afterthoughts on **023 8120 6834**.

Useful links

Our maternity services webpage
www.uhs.nhs.uk/maternity

NHS Choices

www.nhs.uk/conditions/caesarean-section/Pages/Introduction.aspx

Princess Anne Hospital
Coxford Road
Southampton
SO16 5YA

Main switchboard: **023 8077 7222**

If you need a translation of this document, an interpreter or a version in large print, Braille or on audiotape, please telephone **023 8120 4688 for help.**

www.uhs.nhs.uk

© 2016 University Hospital Southampton NHS Foundation Trust. All rights reserved. Not to be reproduced in whole or in part without the permission of the copyright holder.

Version 1. Published January 2016. Due for review January 2019. 2015-1130