

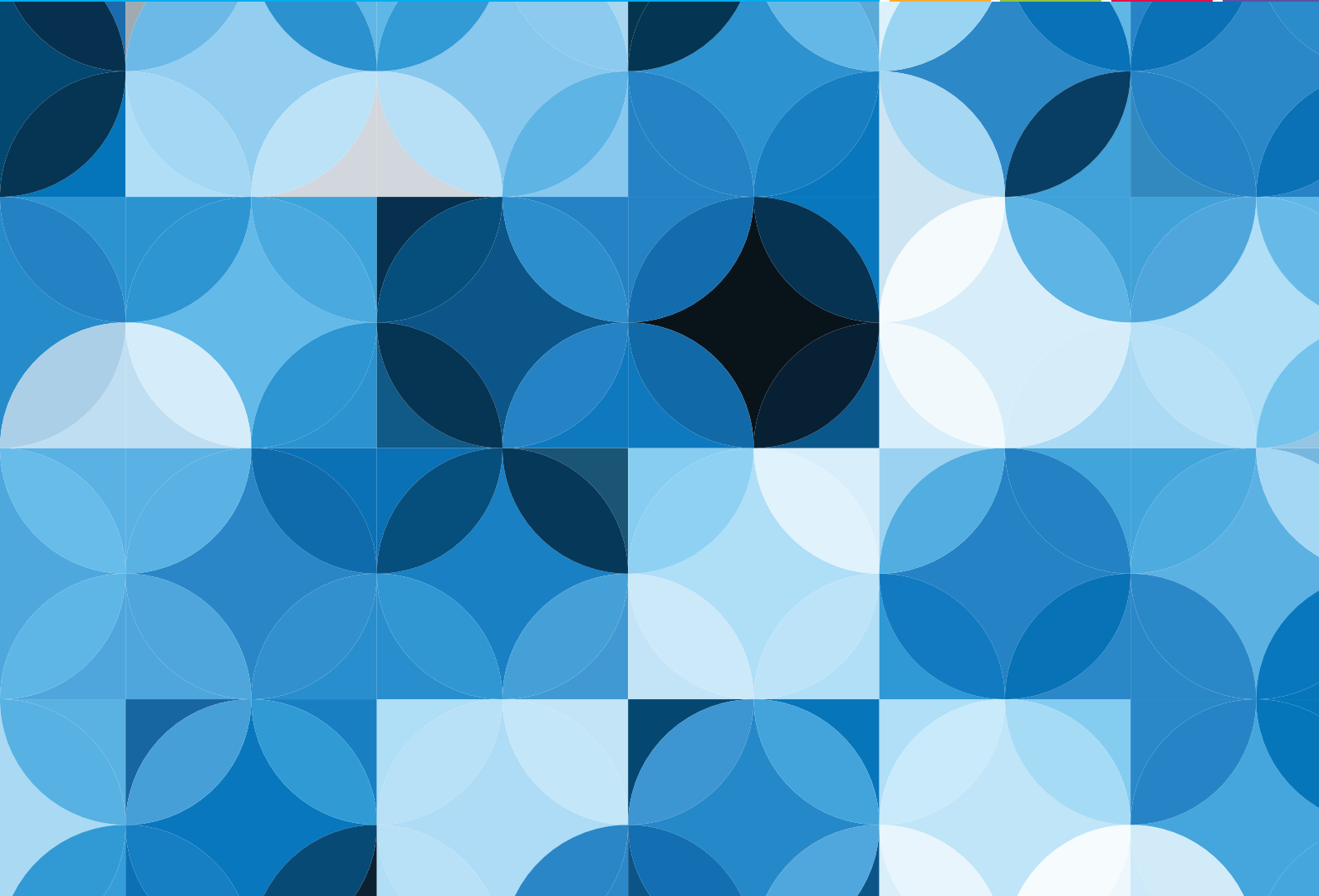


Royal College
of Nursing

Bladder and Bowel Care in Childbirth

Second edition

CLINICAL PROFESSIONAL RESOURCE



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Notes

It is recognised that care may be provided by registered nurses and midwives, health care support workers, assistant practitioners, nursing associates and student nurses and midwives, and trainee nursing associates. For ease of reading, the generic terms ‘nurse’, ‘nursing’ and ‘nurses’ are used throughout this document, unless specified.

The RCN recognises and embraces our gender diverse society and encourages this guideline to be used by and/or applied to people who identify as non-binary, transgender, or gender fluid.

The RCN also recognises that not all those born female, or male will identify with the same gender nouns, but for ease of reading use the term woman/man/men and where appropriate acknowledge nonbinary terms.

Introduction

Bladder and bowel care during childbirth is a critical part of maternity care, as the effective care and management can have short and long-term consequences for the woman and her family.

This guidance aims to provide information about bladder and bowel care throughout pregnancy, labour and into the postnatal period. The content should be considered alongside revisiting anatomy and physiology of the pelvic floor and related organs including the bladder, bowel and reproductive organs. It will also consider the possible complications and potential consequences of damage to these organs and promote good habits (such as pelvic floor muscle training and exercises), including reducing clinical risk. This is aimed at avoiding long-term problems which may have a negative impact on a woman's physical and mental wellbeing, as well as her partner and that of her wider family.

The guidance acknowledges and recognises current national guidance (such as Royal College of Obstetricians and Gynaecologists (RCOG), National Institute of Excellence in Health and Social Care (NICE) and Scottish Intercollegiate Guidelines Network (SIGN)) and can be used as a tool for midwives, nurses, nursing associates, health care support workers, maternity support workers, practice nurses, health visitors and other allied health care professionals, including physiotherapists involved in the care of women.

It is based on the general principles of excellent evidence-based care, including kindness, respect, dignity, informed consent and confidentiality. All practitioners are encouraged to revisit their professional code of conduct and behaviour such as the NMC's Code (NMC, 2018).

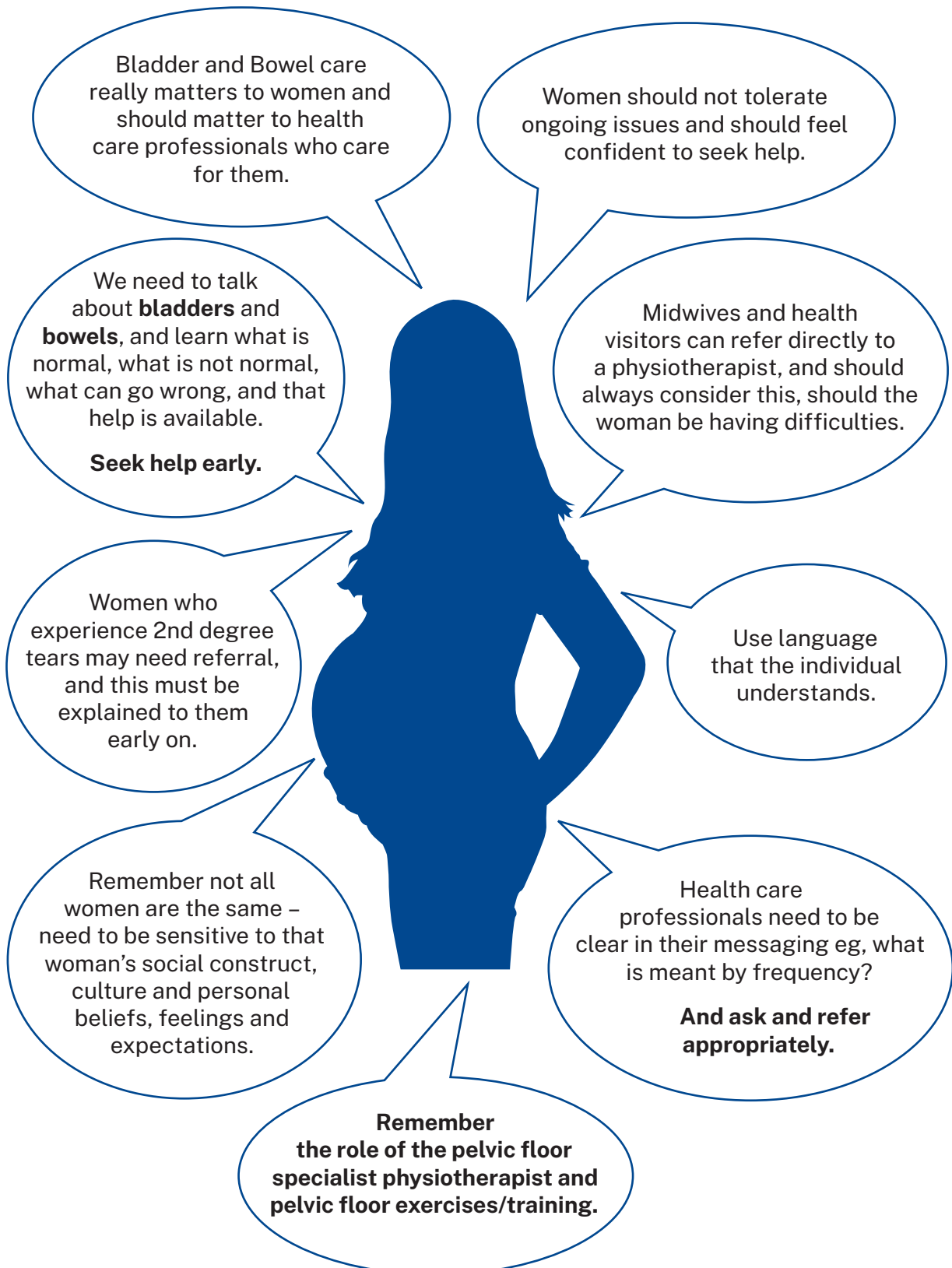
Equally, health care professionals need to understand that the perceptions and experience of childbirth may differ in relation to disability, age, race, religion, sexual orientation and/or partnership status.

Other considerations that need to be taken account of include:

- every woman should be offered a chaperone to be present during an examination, procedure, treatment or any care, irrespective of organisational constraints or the settings in which this is carried out. A chaperone is present as a safeguard for everyone concerned (women and practitioners) and is a witness to continuing consent of procedures. The offer and response should be documented in the woman's records (RCN, 2023). All organisations should have their own chaperone policy
- use of independent interpreters or language line who can accurately translate to and from the woman
- people who identify themselves as non-binary, transgender or from intersex communities may have additional or different needs, which need to be taken account of. Therefore, it is always imperative to recognise that, for many reasons, pregnancy and childbirth will differ greatly for individuals
- the religious and cultural background of women and their families must be considered as they may have particular significance to intimate examinations and procedures. Consequently, all health care professionals should take account of this and act according to privacy, dignity and respect charters, making reasonable adjustments where necessary.

The key is to always consider an individual in their own circumstances and support them according to their particular needs.

Figure 1.1 Key messages



2a. Anatomy, physiology and changes during pregnancy

The urogenital system undergoes dramatic changes due to the physiological processes of pregnancy and childbirth which impact on a women's bladder health. The ability to maintain normal bladder and bowel function after childbirth is crucial for the health and wellbeing of women. Therefore, the early detection of deviations from normal in bladder and bowel function can have a considerable impact on outcomes for women (Lovell and Steen, 2016; Lamb and Sanders, 2016).

The urinary system, also known as the renal system, usually comprises of two kidneys, two ureters, a urinary bladder and a urethra. The main function of the urinary system is to excrete waste from the body. The kidneys produce urine through the filtration of blood and urine travels through smooth muscle fibre tubes known as ureters to the bladder. The bladder is a muscular pelvic organ which is hollow and distensible and acts as a storage reservoir until a convenient time for urine to be voided. The urine is expelled from the body when it is passed from the bladder through the urethra to the outside of the body. This process is known as micturition.

When it comes to normal bladder and bowel function, all individuals are different. Any existing conditions/environment/weather conditions will need to be taken account of when advising women on normal fluid intake and usual bladder and bowel functions.

As a general rule:

Recommended oral intake

- 1.5-2 litres of fluid a day, this does not have to be just water.
- Avoid irritants such as caffeine, citrus drinks, alcohol and fizzy drinks.

Normal bladder function








- Frequency could be 4-8 times a day, every 3-4 hours, however the International Continence Society (ICS) Committee (2018) has suggested that a better definition would be where micturition is occurring more frequently during waking hours than considered normal by the woman, recognising that frequency increases in pregnancy and reduces in breast feeding mothers.
- Nocturia (getting up at night) – once for someone of childbearing years.
- Normal voids – first desire 250mls, full bladder 400mls.

Normal bowel activity

Normal bowel activity is considered to be between three movements a day and three movements a week and stool type should ideally resemble type 3 and 4 on the Bristol stool chart (Heaton et al., 1992 and RCN, 2019a). See [Figure 2.1](#).

Figure 2.1 The Bristol Stool Chart

The Bristol Stool Form Scale

Type 1		Separate hard lumps, like nuts (hard to pass)
Type 2		Sausage-shaped but lumpy
Type 3		Like a sausage but with cracks on its surface
Type 4		Like a sausage or snake, smooth and soft
Type 5		Soft blobs with clear-cut edges (passed easily)
Type 6		Fluffy pieces with ragged edges, a mushy stool
Type 7		Watery, no solid pieces ENTIRELY LIQUID

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Antenatal changes to bladder function

First trimester (first 3 months of pregnancy)

- An increase in progesterone levels results in the relaxation of smooth muscle in the bladder, which can cause decreased tone of the bladder. This could contribute to ureteric reflux, which is where urine is pushed back up into the kidneys.
- The bladder mucosa can become oedematous which increases the risk of urinary tract infection (UTI) (caused by reflux), pyelonephritis and/or trauma (Chauhan and Tadi, 2022).
- A retroverted uterus can compress the urethra and cause urinary retention or voiding difficulties.
- Urinary frequency increases as the growing fetus is competing for space in the abdomen with the bladder.

Second trimester (second 3 months of pregnancy)

- The uterus moves up into the abdomen which can take some of the pressure off the bladder and may resolve frequency.
- The release of relaxin during the second trimester, causes collagen remodelling of both the pelvic floor and the bladder increasing the maximum capacity of the bladder.
- This is often the period during pregnancy when bladder symptoms are the least problematic.

Third trimester (final 3 months of pregnancy)

- The enlarging uterus compresses the bladder, which results in an increased desire to void during the day and night-time. Some women experience urinary frequency on an hourly basis, others less often.
- At night-time, pressure is usually taken off the vena cava and iliac vein when the woman is lying down, this will allow for greater venous return and more effective cardiac output. This is likely to increase nocturia as the body offloads the extra fluid it has struggled to get rid of during the day.
- Bladder capacity can increase during pregnancy, so large voids can be expected after the birth.

Antenatal care of bladder and bowels

The importance of asymptomatic bacteria and being aware of changes in bladder and bowel function during pregnancy and childbirth needs to be reiterated to women on a regular basis, as the potential risks can lead to complications such as increased risk of urinary tract infection (UTI) and the risk of premature labour.

It cannot be assumed that all women understand good care/hygiene, for example how to clean themselves after micturition and bowel movements. Further details of care can be found in the section on Complications on [page 15](#).

Intrapartum changes and care of bladder and bowels

Women should be encouraged to void regularly during pregnancy and during labour, the volume passed should be recorded on the partogram and fluid balance chart during labour (NICE, 2023). Incomplete bladder emptying can delay the descent of the baby, reduce the efficiency of the contractions and increase pain. The need for assessment of urinary symptoms and of bladder emptying and urinary residual throughout labour is critical to ensure accurate diagnosis and care. NICE (2023) recommends assessment at least every four hours. This should include:

- frequency of passing urine and bladder sensation
- fluid balance monitoring if sensation is abnormal or absent, if there is an inability to pass urine, or the woman is receiving intravenous fluids (including oxytocin)
- offering to insert a catheter if there are any ongoing concerns over the woman's ability to pass urine.

During labour there is an increased risk of bacteria entering the urinary tract. Urethral catheterisation, whether indwelling or in and out, also increases the risk of a UTI. The role of catheter fixation devices and good catheter care in preventing this, should be part of usual care.

Women naturally open their bowels during labour because the muscles used to push during labour are the same as those used for defaecation. It is important that dignity is maintained throughout when women pass a stool without having control of it.

Postnatal changes and care of bladder and bowels

It is vital to ensure that women have passed urine following labour. A natural diuresis occurs in the post-partum period which means that the bladder will fill up quickly. It is important that good volumes are passed (bladder capacity can increase during pregnancy, so large volumes may be expected) and that women are emptying their bladders fully. Maternity service providers should have guidelines (based on national standards) as to how much urine should be passed and within what time parameter, including the required action, if urinary retention is suspected ([see next section](#)). Rantell et al., (2019) have acknowledged the lack of standardised guidelines available for bladder management and the need for urgent research in this area. NICE (2023) recommend that after birth women are checked for successful voiding of the bladder; if, after six hours, her bladder is palpable and she is unable to pass urine, advise catheterisation and consider transferring the woman (with her baby) to obstetric-led care.

Pushing during the second stage of labour can result in the development of haemorrhoids. These can be very uncomfortable and prevent women from opening their bowels due to fear of pain and discomfort. This can last for the first few weeks following delivery and cause other difficulties and potential problems. Women should be encouraged to drink plenty, increase their fibre intake and keep their bowels as regular as possible; for most women that would be the same as during the antenatal period. Correct toilet position is also vital (see [Figure 2.2](#)). Constipation can also impede complete bladder emptying. This should be considered if the woman is having problems emptying her bladder fully.

Some women may experience faecal urgency and/or incontinence, usually due to a weakened pelvic floor. Generally, this will improve after a few weeks, once the pelvic floor muscle strength improves. If it does not, then a referral to the pelvic floor specialist physiotherapists, bladder and bowel care service and/or the colorectal team should be considered.

Figure 2.2 – Correct toilet position



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2b. Pelvic floor

Pelvic floor function

The pelvic floor is complex, made up of the levator ani muscles, superficial perineal muscles, the urogenital diaphragm, the perineal membrane, endopelvic fascia and external anal sphincter (see [Figure 2.3](#)). The muscles are composed of type I (slow twitch, for endurance) and type II (fast twitch) muscle fibres. There is a greater proportion of slow twitch fibres (Marques et al., 2010). Pelvic floor functions include:

- support for the abdominal and pelvic organs against gravity and downward pressure
- strength to control bladder and bowel continence
- the ability to relax to allow appropriate bladder and bowel emptying
- sexual function
- assisting with the rotation of the baby's head during birth.

<https://teachmeanatomy.info/pelvis/muscles/pelvic-floor>

Figure 2.3 The pelvic floor

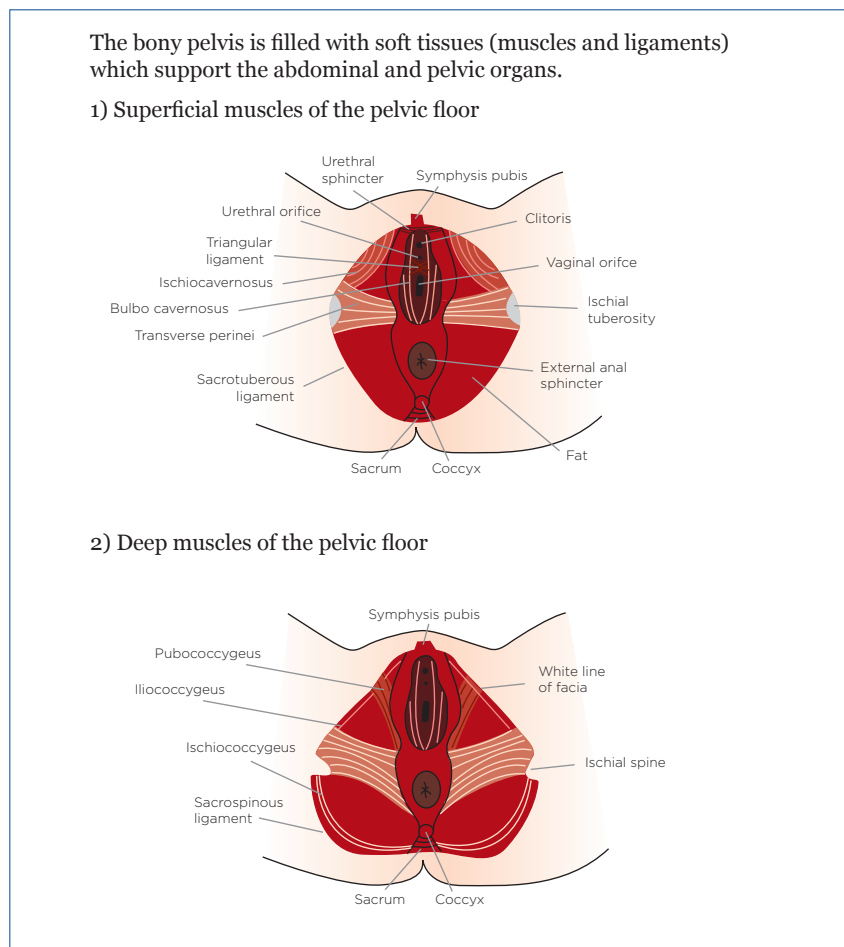


Image from: rcn.org.uk/professional-development/publications/rcn-womens-health-cards-uk-pub-009289

What happens during pregnancy?

Pregnancy and labour are significant factors in the development of bladder, bowel and pelvic floor dysfunction (Van Geelen et al., 2018). During pregnancy, demand on the pelvic floor muscles increase, and their strength decreases, as the muscles lengthen with pressure from the growing uterus and weight gain. Bladder neck mobility increases and there can be pelvic organ descent (Van Geelen et al., 2018). Hormonal influences can also play a part as collagen changes contribute to reduced functional support of the pelvic floor muscles and pelvic organs (Sangsawang and Sangsawang, 2013).

Symptoms of pelvic floor dysfunction (such as stress urinary incontinence) may emerge during pregnancy.

Pelvic floor massage/perineal massage is a technique using oil, which may help to reduce perineal trauma during birth. Ismail and Emery (2013) demonstrated its value and acceptability to women, however it is critically important that it is carried out correctly. The National Childbirth Trust (NCT) has produced a leaflet which helps to explain the technique that is available at: nct.org.uk/pregnancy/worries-and-discomforts/common-discomforts/how-do-perineal-massage-step-step-guide

What happens after pregnancy?

Regardless of the mode of birth, due to antenatal pressure of the fetus on the pelvic floor, dysfunction can occur. This can present as pain, weakness and pudendal nerve injury. A vaginal birth, particularly an instrumental one, is more likely to have a significant impact on the pelvic floor, in comparison to a caesarean section and it can take some months for the pelvic floor to recover following a vaginal birth (Nygaard, 2015).

Hormonal influences continue to have an effect on the collagen for some weeks in the post-partum period. Other factors to consider are:

- the weight of the baby
- length of the active second stage of labour
- position of baby at birth
- maternal age
- episiotomy
- perineal tearing
- obstetric anal sphincter injury
- number of previous births.

Levator ani rupture (avulsion) can occur, making pelvic organ prolapse more likely in later life (Handa et al., 2019).

The hormone relaxin, which is produced during pregnancy and whilst breastfeeding, has an impact on the pelvic floor, as it relaxes the smooth muscle cells. This may delay improvement in symptoms for some women with pelvic floor dysfunction. The use of topical vaginal oestrogen whilst breastfeeding may help with symptoms of vaginal dryness, due to the suppression of oestrogen.

Pelvic floor muscle training/exercises

Pelvic floor muscle training (also referred to as pelvic floor exercises) is known to be effective in treating symptoms of urinary incontinence (NICE, 2019c) and pelvic organ prolapse (Hagen et al., 2013). It is recommended for all women especially during antenatal care and following childbirth. Core stabilisation exercises are safe, beneficial and effective too for alleviating urinary symptoms and may be helpful for many women (Chin-Yin et al., 2023).

It is important to isolate a contraction of the pelvic floor muscles correctly. It has been found that many women do not have the correct technique (Bo, 2012), manifesting in a downward force (Valsalva). If a woman is struggling with the technique or if symptoms are not improving, it is advisable to seek help from a specialist pelvic health physiotherapist.

Pelvic floor muscle training/exercises should be encouraged antenatally and can also be started very soon after a vaginal birth or caesarean section. Pelvic floor exercises (sometimes referred to as Kegels) should be performed by activating the muscles as a sling (at both the front and back passages). This can be achieved by contracting at the back, as if stopping from passing wind, then pulling the back passage upward, forward and toward the pubic bone at the front. Breath-holding should be discouraged; inhale to prepare and exhale to contract the muscles. It is important to fully relax the muscles after each contraction to bring them back to their starting level.

In order that both the slow and fast twitch muscle fibres are trained, two types of exercise are recommended. First, longer holds lasting for as long as possible (up to about 10 seconds). This can be repeated until fatigue is felt in the muscles and the length of the hold increased over time. Second, shorter holds lasting a couple of seconds each, again until fatigue, should follow. Use of accessory muscles such as the buttocks (gluteals) and abdominals should be limited. The principle of muscle overload applies, whereby muscles should be worked to fatigue to improve strength and function. Progression is required particularly where symptoms of pelvic floor muscle dysfunction are present.

NICE (2019c) recommends that these exercises are completed three times per day initially lying or seated and progressed into more functional positions. A good opportunity in the early post-partum period may be when the baby is feeding.

There are various apps available that can aid engagement. The Squeezy app is one recommended by the NHS ([squeezyapp.com](https://www.squeezyapp.com)). The woman can record each session, it has a graphic that will carry out the contraction with her and it can send reminders to the user.

Improvements in function should be noticed within three to five months. Pelvic floor training/exercises should be lifelong and exercises can be performed less frequently as part of a maintenance regime.

Figure 2.4 How to complete pelvic floor exercises

Start as soon as possible antenatally and post-partum, increasing blood flow to the area can aid tissue healing.
Aim to undertake 3 times a day.
Start seated or lying and progress to upright and with activity.
Draw up both front and back passage. Start at back and draw up and forwards to front as if stopping passing both wind and water.
Long holds until fatigue (aim up to 10 secs max), repeat until fatigue.
Short holds until fatigue.
Relax muscles (let go) fully in between contractions.
Increase over time.
Avoid breath-holding and limit use of buttocks and abdominal muscles.

Further useful information regarding performing pelvic floor training/exercises can be found at: [youtube.com/watch?v=v731EXFR2k4](https://www.youtube.com/watch?v=v731EXFR2k4) (a video on pelvic floor exercises).

Figure 2.5 Key messages – reducing pelvic floor damage

Pelvic floor awareness and understanding by women.
Pelvic floor function knowledge and understanding by health care professionals.
Antenatal perineal massage.
Antenatal and postnatal pelvic floor exercise/training.

3. Complications

Pregnancy and childbirth are natural phenomenon; however, complications can arise which can have short and long-term effects. When it comes to bladder and bowel care, it is important to discuss the changes to physiology during pregnancy, labour and postnatally to ensure the woman understands what is normal, and when she needs to discuss any concerns she has with her midwife or health visitor. It is also important that all health care professionals caring for women reiterate that bladder problems may be common but that does not mean they are normal.

It is not uncommon for women to tolerate these complications because they assume bladder problems are the norm in the postnatal period (and as part of the ageing process), believing nothing can be done to help.

It should not be underestimated that any of these conditions may have a considerable impact on the woman, both her physical and mental wellbeing. Being unwell can affect the woman's mood and psychological state, and needs to be considered, even with conditions that may be considered common and short term. Developing a relationship with a new baby has its challenges and these can be exacerbated if the woman is experiencing complications with her bladder and/or bowel as a result of the pregnancy or labour. Appropriate mental wellbeing assessments should be routinely carried out alongside physical assessment and care.

Urinary tract infections

Urinary tract infections (UTIs) are common during pregnancy. As the uterus expands for the growing fetus, it can put pressure on the bladder and ureters. The smooth muscle of the bladder relaxes, which increases capacity and the risk of UTIs. The hormonal changes, such as an increase in progesterone during pregnancy, can cause the smooth muscles of the urinary system to relax. This in turn can affect the urinary tract which may mean that the bladder does not empty as efficiently, potentially increasing residual urine volume which increases the risk of infection.

The reasons for urinary tract infection in pregnant women are multifactorial including:

- dilated tortuous ureters
- vesicoureteric reflux
- bladder base oedema.

The differences in urine pH, urine osmolality, pregnancy induced glycosuria and aminoaciduria may facilitate bacterial growth which can lead to asymptomatic bacteriuria.

The current management of a UTI in pregnancy is a course of antibiotics for asymptomatic bacteriuria, as studies have shown that bacterial colonisation of the urinary tract can cause other problems such as pyelonephritis and premature birth (Ghouri, 2019 and NICE, 2019a). Common practice in maternity care is to request a routine mid-stream urine sample at the booking (first appointment) clinic. However, some women are reluctant to take antibiotics, if required, due to a fear of potential risks to the fetus. NICE (2019a) and SIGN (2020) provide examples of antibiotics to consider when prescribing for pregnant women with a UTI.

Prevention of UTIs

Preventative techniques should always be advised and may help reduce the number of antibiotics needed. Women should be advised about good hygiene techniques, that they clean the area, following voiding, from front to back to avoid pushing bacteria into the urethra. Women should also be advised to wash their genitals following sex.

During pregnancy, women should be encouraged to have an oral daily intake of 1.5-2 litres of fluid. Pregnant women need more water in order to form amniotic fluid, enhance digestion and flush out toxins. A good oral fluid intake will also reduce the risk of constipation. Caffeine, citrus drinks, fizzy drinks and alcohol should be avoided; they can irritate the bladder and may increase urinary frequency.

Urinary incontinence

Women may experience urinary incontinence during pregnancy. This may be exacerbated in women who have pre-existing bladder conditions which may further deteriorate during pregnancy. Urgency incontinence is where urine leaks out before making it to the toilet. This can be caused by strong concentrated urine if the woman's fluid intake is insufficient, or the reduced functional capacity of the bladder as the fetus grows and competes for space in the abdomen.

Stress incontinence is the most common type of incontinence in pregnant women (Sangsawang, 2013) and happens when there is an increase in the intra-abdominal pressure, such as during a cough or sneeze. This can be attributed to the extra weight of the baby weakening the pelvic floor muscle and hormonal changes which also affect the pelvic floor muscles. Pelvic floor muscle training/exercises should be taught and encouraged throughout pregnancy (see section on pelvic floor on [page 11](#)).

The pelvic floor is often weaker immediately following labour due to mechanical injury to the pelvic floor muscles and stretching of the pudendal nerve. Women may then experience urinary incontinence which will vary in severity from total loss of bladder control to some urinary urgency incontinence (leaking before reaching the toilet) or stress incontinence (leakage with movement or cough/sneeze). Pelvic floor exercises/training and allowing the body time to heal are key in symptom improvement. Women should be advised to undertake pelvic floor exercises/training immediately following labour to strengthen their pelvic floor, as when the muscle is squeezed, blood returns to the area which can aid healing.

Bowels and constipation

Constipation is a common issue in pregnancy affecting up to 38% of pregnancies (Verghese et al., 2015). Some women become constipated very early on in their pregnancy as increased levels of progesterone reduce the smooth muscle motility in the bowel. Relaxin has a similar effect by slowing down the gut.

Women should be advised to increase their fluid intake and dietary intake of fibre. Simple things such as adding linseed or flaxseed to food can help as an easy way to promote bowel movement. Ignoring the 'call to stool' can increase constipation, so women should be advised to go when they feel they need to. They could also take advantage of the

gastrocolic reflex and sit on the toilet after eating, even if they do not feel the need to go.

Laxatives can be considered if simple management strategies are not effective, such as Lactulose or Movicol. However, for most women dietary assessment and advice will be beneficial.

Perineal damage and repair

Damage to the pelvic floor, specifically the perineal body, which lies between the vagina and rectum, may also be caused by an episiotomy* or lacerations**, which take place during the birth. These traumas will usually require suturing after the birth is completed. Postnatal advice and care of the repaired area, in particular instigation of pelvic floor exercises/training are imperative to wellbeing. Good technique for repair is equally important for recovery.

*Episiotomy is where the perineal body is cut during vaginal/instrumental delivery to enlarge the orifice to enable birth to take place. Episiotomy can also be used to protect the perineum from extensive tears.

**Lacerations may occur to the pelvic floor, and they are graded by the midwife after birth by examining the perineum, see [figure 3.5](#) for details.

The complications women may experience after a perineal trauma may include:

- urinary incontinence
- bowel urgency and/or faecal incontinence
- rectovaginal and anovaginal fistulae (abnormal connections between the rectum and vagina) may be a further complication of perineal repair.

These conditions can cause women physical pain, embarrassment and emotional distress, as well as making it difficult for the woman to look after a new baby and her family. It can also make intimacy difficult due to pain in the genital area, pain during sexual intercourse or delays and difficulties with orgasm.

There is also evidence from the NHS Litigation Authority (NHSLA) (now known as NHS Resolution) that maternity claims can be directly related to bladder and bowel care. In one review of claims over a 10-year period, 72 claims related to bladder care, which amounted to 1.21% of total claims and costs of £8,824,269 (NHSLA, 2012). The NHSLA stated that relevant claims can occur regardless of mode of delivery and the expected practice includes having local evidence-based bladder care guidance, including careful record keeping. These should include:

- **Following vaginal delivery:**
 - the first void including the volume following birth should be recorded
 - when indwelling urinary catheters should be inserted and removed
 - NICE (2023) recommend referral to obstetric-led care after six hours if a woman's bladder is palpable and she is unable to pass urine.
- **When having a caesarean section:**
 - women will require an indwelling catheter and it should be removed no sooner than 12 hours after the last epidural top-up dose or when mobile.

Postnatal urinary tract infections

Some women will experience UTIs postnatally which can be due to sensitivity and swelling of the vaginal and pelvic floor. Women should be encouraged to maintain effective postnatal hygiene and a good oral intake. In the case of a diagnosed UTI, antibiotics may be required.

Acute urinary retention

Acute urinary retention (AUR) is defined by the International Continence Society (ICS) as a 'painful, palpable or percussable bladder when the woman is unable to pass any urine' (ICS, 2018). This can happen following labour especially when the woman has any of the risk factors outlined in [figure 3.1](#).

Figure 3.1 Risk factors for going into urinary retention

Primigravida.
Instrumented delivery.
Perineal trauma – 2nd, 3rd, 4th degree tear, episiotomy.
Prolonged second stage.
Epidural – a side effect of this is decreased or absent bladder sensation
Caesarean section.
Natural postpartum diuresis – this plus an increased oral intake following labour may increase the risk of retention due to the volume of urine being produced, the perineal trauma and lack of sensation.
Rapid diuresis following discontinuation of oxytocin.
Manual removal of placenta.

Signs and symptoms of acute urinary retention (AUR)

It is vital that a woman's bladder function is monitored closely following labour to ensure there are no issues preventing her from passing urine, with a risk of developing urinary retention. If a woman has not passed urine within four hours, investigations should be carried out to determine whether this is acute retention of urine, with referral to obstetric-led care if it continues past six hours (NICE, 2023). The signs and symptoms of AUR are outlined in [figure 3.2](#).

Figure 3.2 Signs and symptoms of retention

Frequency – every half hour to an hour.
Urgency – needing to rush to the toilet.
Feeling of incomplete emptying and needing to go back soon after to try and empty again.
Constant sensation of needing to void.
A lack of sensation in the bladder – not aware that the bladder is full.
Unable to go at all.
New onset of urinary incontinence.
Pain associated with not being able to pass urine.
Passing small volumes – 100mls or less.

Rantell et al., (2019) state that there is no consensus for the routine assessment of postnatal post void residuals. Currently, there are no standardised guidelines which detail how bladder function should be monitored following labour. Maternity care service providers should have guidelines including action to take where there may be suspected problems or concerns. These guidelines will usually have a requirement for a specified number of voids of over a specific volume. Once the health care practitioner is satisfied that no issues have been identified, the fluid balance chart should be discontinued and the woman deemed to be passing urine normally.

Common causes of postnatal retention

- Unable to relax the pelvic floor when going to the toilet – because of pain/fear.
- Pudendal nerve damage following labour.
- Increased oral intake.
- The impact of pain on voiding.
- Perineal trauma.
- Inaccurate toilet position, eg, hovering rather than sitting (see [Figure 2.2](#)).

Diagnosis of retention

When there is uncertainty about effective bladder function, either a bladder scanner or urethral catheter (indwelling or in and out) can be used to assess whether the bladder is emptying fully (Rantell et al., 2019). Lukasse et al., (2007) and Mulder et al., (2018) state that bladder scanners measure post-void residual volume accurately following vaginal delivery and should be used in preference as a first choice if available rather than an in and out catheter.

Management of acute urinary retention

The most common management of AUR is to insert a urethral catheter to allow the bladder to rest and regain some of its contractility again. Guidelines vary on how long catheters should be left in for, depending upon the amount left/residual in the bladder.

Intermittent self-catheterisation can be considered if, following a trial without catheter (TWOC), the bladder continues to not empty fully or be unable to empty at all. A referral to the urology or urogynaecology team would be advised at this point for further investigation. **Figure 3.3** outlines the complications a woman may face as a result of postnatal urinary retention.

Women who have just had a baby or who have just had their catheter removed or TWOC should be advised to drink to thirst not to “to drink as much as they can”. Often women drink excessively after their catheter has been removed because if they delivered in a maternity unit, they know once they have passed urine, they can be discharged home.

Figure 3.3 Potential complications from urinary retention

Permanent detrusor damage and inability to empty bladder.
Voiding difficulties, incontinence, frequency, nocturia.
Period of prolonged catheterisation and the psychological impact of this.
Need for intermittent self-catheterisation.
Recurrent UTIs due to incomplete voiding or catheterisation.
Psychological issues – feeling a failure, anger, depression.

Catheter care

If a woman is discharged home with an indwelling or suprapubic catheter to allow the bladder to rest following an episode of retention, it is important that they are given information about how to care for their catheter, alongside referral to the community nurse, or community bladder and bowel care team. **Figure 3.4** details important information that should be given, preferably in a format that the woman understands. The RCN (RCN, 2021) also has separate guidelines for catheter care.

In some clinical environments, a flip flo valve is used, however emerging evidence would suggest that the preferred practice would be to allow the bladder to rest on free drainage, to maximise bladder function after the catheter is removed.

Figure 3.4 Advice to give when discharged home with a catheter

How to change the bag and when to change it.
How to maintain a closed drainage system, attaching a night drainage bag to the end of the leg bag.
Fluid intake.
Importance of keeping bowels regular.
Catheter securement.
Cleaning the catheter, especially around the meatus.
When to empty the catheter.

Instrumental births

Instrumental births may cause issues with bladder function. Women who have had an instrumental method of birthing may experience:

- lack of sensation to go to the toilet
- significant urinary incontinence.

If a catheter has been inserted during labour it should remain in situ for a minimum of 12 hours following an instrumental birth, manual removal of placenta or repair of 3rd or 4th degree tears.

If there is no sensation to void

Advise three-four hourly trips to the toilet, even if no sensation. This will prevent the bladder over distending. Encourage double voiding (sitting on the toilet, emptying the bladder and then trying to empty again to ensure the bladder is as empty as it can be). Pelvic floor exercises/training should also be carried out two-three times a day.

Women often notice that the sensation to void returns as any perineal swelling goes down post-labour, although they should be advised that this is not always the case. The sensation can often take weeks, if not months, to return to normal.

Significant urinary incontinence

Some women are not able to control their bladder and suffer with significant urinary incontinence following an instrumental delivery. These women should not be catheterised as this will increase the risk of UTIs and will not improve bladder function. Alternatively, they should be advised to wear pads to contain the leakage and to continue with pelvic floor exercises two-three times daily. Sensitivity about the challenges of this choice of managing incontinence should be explored when talking to women.

They should be reviewed by a pelvic floor specialist physiotherapist around six weeks to check their progress. Often symptoms significantly improve as swelling reduces and the pelvic floor strengthens again.

It is essential to measure a post-void residual if the woman presents with urinary incontinence as it may be overflow incontinence which is a common sign of postpartum retention. It is important that this is not confused with urinary incontinence.

It is vital that women keep their bowels regular, as a full rectum can exacerbate bladder symptoms by pushing on the bladder, reducing capacity and reducing the ability of the bladder to empty fully. Straining will weaken the pelvic floor further.

Obstetric anal sphincter injuries

An obstetric anal sphincter injury (OASI), which is the collective term for third- and fourth-degree tears, refers to any injury to the anal sphincter muscle sustained during childbirth. Depending on severity and the quality of repair they can cause significant long-term morbidities including anal incontinence and post-traumatic stress disorder

(PTSD) (LaCross et al 2015). PTSD is a severe anxiety disorder which can develop following an extremely frightening or traumatic experience. These complications can severely impact a woman’s quality of life and affect future birth choices (Evans et al., 2014 and Priddis et al., 2015). There are also significant long-term financial consequences for health systems associated with litigation claims. In the UK, these are estimated to be approximately £31.2 million (between 2000 and 2010) which does not take account of associated further treatment that may be required on a long-term basis.

The overall incidence of OASI in the UK is 2.9% with a higher incidence in primiparous women (those having a first pregnancy) at 6.1%, compared to multiparous women (those having been pregnant before) at 1.7% (Thiagamorthy et al., 2014 and RCOG, 2015). One of the current challenges is that OASI rates continue to increase, having tripled amongst primiparous women over a ten-year period (Gurol-Urganci et al., 2000 and 2013). This may be due to increased reporting and recognition and there are known demographic and intrapartum risk factors for OASI (McLeod et al., 2003). However, for some women there is no clear reason why they sustain these injuries.

Midwives have a significant role in the management of OASI both in the diagnosis, prevention and postnatal care, whilst pelvic floor specialist physiotherapists have a critical role postnatally.

Diagnosis of obstetric anal sphincter injuries

A systematic examination of the perineum, including the anal sphincter, after a vaginal delivery is of paramount importance in making a diagnosis of OASI and excluding a buttonhole tear in the rectum (RCOG, 2015). These can also occur in the presence of an intact perineum. On examination a distinction should be made between the external and internal anal sphincter muscle. The RCOG classification system and guidance on management should support standardised care (RCOG, 2015) as outlined in [figure 3.5](#).

Figure 3.5 Classification of OASI

Intact perineum	No visible tear
1st degree tear	Injury to skin only
2nd degree tear	Injury to the perineum involving perineal muscles but not the anal sphincter
3rd degree tear	Injury to the perineum involving the anal sphincter complex 3a: less than 50% external anal sphincter thickness torn 3b: more than 50% external anal sphincter 3c: Both external and internal anal sphincter torn
4th degree tear	Injury to perineum involving the anal sphincter complex (external and internal anal sphincter) and anorectal mucosa
3rd and 4th degree tears are collectively referred to as OASI	

RCOG, 2015

Prevention

Use of warm compresses during the second stage of labour is associated with approximately 50% fewer women experiencing OASI (Aasheim et al., 2017). This intervention, which has been found to be acceptable to mothers and midwives, can be introduced into routine practice after standardising the procedure.

Episiotomy should be given when indicated (selective use) as it may be associated with 30% fewer women experiencing severe perineal/vaginal trauma compared to routine use (Jiang et al., 2017). When an episiotomy is indicated, the mediolateral technique should be used on the distended perineum, with careful attention to ensure that the angle is 60 degrees away from the midline (RCOG, 2015) and prevention could include use of episissors to get the 60 degree angle recommended.

Manual perineal protection (MPP) continues to be debated amongst maternity health care professionals with some advocating 'hands on' and others advocating 'hands off/poised' policies. While a systematic review and meta-analysis did not show a significant benefit of MPP in randomised studies, observational studies showed that the OASIs rate was reduced by more than 50% (from 4-5% to 2%) in a total population of >75 000 deliveries when the Finnish grip (a technique of manual perineal protection involving simultaneously using the thumb and index finger of one hand to support the perineum while the flexed middle finger takes a grip on the baby's chin) was utilised (Bulchandani et al., 2015). Those attending women in labour should be proficient in both skills and consider women's preference, as well as any other risk factors that may be present, in order to best support women and provide effective care.

The care bundle

In response to the rising rates of OASI in the NHS, a multidisciplinary team of UK clinical and methodological experts, supported by RCOG and RCM developed a care bundle which can be offered to women and they can adopt with consent. A care bundle is a set of interventions that are likely to improve outcomes when implemented together.

The OASI care bundle includes:

- specific information provision to women during the antenatal period
- manual perineal protection
- use of mediolateral episiotomy at 60-degree angle when clinically indicated
- a requirement that the perineum should be carefully checked after birth, including a per rectum examination [rcog.org.uk/OASICareBundle](https://www.rcog.org.uk/OASICareBundle).

Good communication between the health care professional and the woman to achieve a controlled birth is critical to all these elements. In addition, women should adopt whatever position for birth that they prefer.

The OASI care bundle was implemented and evaluated in approximately 55,000 women between 2016 and 2018 in 16 NHS hospitals in England, Scotland and Wales. OASI rates, as a result, reduced by 20% without affecting the caesarean section rates or episiotomy use.

Postnatal care

After sustaining an OASI, women are usually discharged home with a course of antibiotics and stool softeners. It is recommended that women with OASI have contact with a health care professional 24-48 hours after hospital discharge to ensure bowel evacuation has taken place. Faecal impaction can lead to disruption of sutures and referral to hospital may be needed for manual evacuation.

Women who sustain obstetric anal sphincter injuries are at high risk of developing wound complications in the early post-partum period, warranting immediate and consistent follow-up (Lewicky-Gaupp et al., 2015).

Midwives and all health care professionals who have contact with women postnatally, should be aware of the local protocols and that women who have undergone OASI repair should be reviewed 6-12 weeks post-partum. This should include detailed referral/transition of care to the health visitor and specialist physiotherapist. Where possible, review should be by health care professionals with a special knowledge of OASIs (RCOG, 2015). All women who undergo OASI repair should be provided with clear instructions of the expected care pathway for the duration of care required.

The psychological impact of pelvic floor dysfunction

The psychological impact of any form of pelvic floor dysfunction can be as great as the physical symptoms experienced. Suffering with new onset incontinence, having an episiotomy or laceration to the perineal body and/or experiencing urinary retention will inevitably have an impact on body image, relationships, a woman's sex life and general mental wellbeing. If the birth experience was particularly traumatic then women may suffer with PTSD. It is essential that any health care professional asks the woman how she is feeling at every opportunity and knows where to refer her for psychological support, counselling and/or assessment of new onset symptoms if necessary.

Physiotherapists, midwives, health visitors, practice nurses and nurse specialists are all likely to see postnatal women and have the opportunity to identify any concerning or continuing issues. They should all be aware of what is provided locally to enable referral for further support as required. Some hospitals have access to debriefing sessions and counsellors to help women cope with the psychological impact of events following birth.

4. How to initiate conversations and encourage women to discuss concerns

Health care professionals providing care to women during pregnancy through to postnatal care and beyond, do so using the best available evidence to support safety and excellence in practice. Alongside this, women need to know that they can trust information shared and that health care professionals remain non-judgmental and give advice based on available information and/or evidence.

It is similarly important to be mindful that women may find some subjects difficult and uncomfortable to talk about, in particular when using language or making assumptions that may not be familiar to the woman. Equally, health care professionals should be consistently aware that many women will have significant knowledge about issues that concern their health and wellbeing. The NCT (2018) reported that 38% of women are self-conscious about talking to health care professionals.

Communication to women (and their partners):

- should always be sensitive, encouraging and honest about expectations
- should be focused on them as individuals
- health care professionals should always be mindful that women may be embarrassed, frightened or have a history of a trauma which makes these conversations even more challenging
- always take time to listen to the woman's story and check her understanding
- do not assume that all women:
 - understand their own anatomy and physiology
 - have knowledge about pelvic floor exercises/training, or that these have been discussed early in pregnancy
 - understand what a urinary tract infection is or what the signs and symptoms may be.

Women with urinary or bowel incontinence will often minimise what they are experiencing or deny it and blame themselves and/or their baby. All of which could impact on their relationship with their baby, their partner and wider family.

It is not uncommon for some women to have an emotional trauma response to what has happened and how their continence has changed them (tearful, anxious, angry, and/or adjustment behaviours). Reassurance to always seek help for urinary or faecal incontinence symptoms cannot be over emphasised because of the potential impact on relationships, careers, exercising and/or feelings of isolation. Health care professionals must be able to offer support and know where to signpost to other services such as pelvic floor specialist physiotherapist, urogynaecology teams or bladder and bowel care specialists.

In practice, all registrants have a duty of candour (NMC, 2018) which requires openness and honesty. Harm is rarely caused to women intentionally, however there is a need to

recognise that some aspects of care may not have been as women would have expected. This needs to be recognised, acknowledged and managed positively.

All organisations that provide health care should have a risk management process to report concerns when there may be an issue with the care provided. This includes bladder and bowel trauma and injury, which can then enable a local investigation to be undertaken to see if there is any learning to enhance future practice. All health care professionals should be familiar with their local risk management process and how to action any concerns they have.

The IMMDS report (2020) *First Do No Harm* was clear in its messaging about the importance of a duty of candour, providing clear information to women during care, ensuring they understand how to raise concerns and provide assurance that any concerns will be carefully considered and responded to.

During antenatal care, it is imperative to speak to all women about bladder and bowel care, and pelvic floor exercises/training (NHS, 2017; NCT, 2018; NICE, 2019a), and health care professionals should not assume that women understand their own anatomy and physiology or know how to initiate pelvic floor exercises/training.

During care in labour local guidelines about bladder and bowel care should be adhered to. Health care professionals are also responsible for ensuring local guidance is evidence based and contemporary.

They should include information about:

- frequency of emptying the bladder in labour
- emptying the bladder after birth
- when a catheter might be required
- whether the catheter needs to stay in or not
- drainage of urine from the catheter
- when to remove the catheter and how to assess bladder emptying
- what to do and how long to wait after birth for urine to be passed.

(NHSLA, 2012; NICE, 2023)

Guidelines are provided to support effective care planning, discharge advice and follow-up treatment following all perineal trauma. This is particularly important for women who have a complicated laceration/repair, especially 3rd or 4th degree tears, where recovery may be more complicated and follow up required (RCOG, 2015).

Postnatally, it is essential to provide an opportunity for all women to discuss the care they have received, to enable them to better understand how and why decisions were made about particular courses of action. Equally, if women have concerns about their care, they should be encouraged to discuss this, and know that their concerns will be taken seriously, so that further learning can take place. It also provides an opportunity to contribute to future care and can help with recovery knowing that concerns are being taken seriously.

Local organisations and health care professionals can use anonymised case studies to reflect on care and contribute to future service provision.

Raising and addressing concerns and making a complaint

It can be very difficult for women to raise concerns. There is often an underlying fear of not being responded to positively or that it may adversely affect the care they receive. Traditionally health care professionals, tended to take a paternalistic attitude to care – they know best and should not be questioned, however time and again, reports on care have demonstrated:

- the need for women to be treated with respect
- actively involved and encouraged to discuss their care
- the positive and negative effects that care had/has on them and their family
- how health care providers can learn from the mistakes/misunderstandings and/or harm caused in some cases.

This has been reinforced again by the recent Cumberlege report (IMMD 2020).

The complaints process in England, Scotland, Wales and Northern Ireland are different (see [Figure 4.1](#)) and it is always best to start with voicing concerns via the midwife, the professional midwifery advocate or head of midwifery at the maternity unit where care was provided.

Figure 4.1 Raising concerns and complaints in the UK

In **England** the local patient groups such as Patient Advice and Liaison Service (PALs) can help: [nhs.uk/common-health-questions/nhs-services-and-treatments/what-is-pals-patient-advice-and-liaison-service](https://www.nhs.uk/common-health-questions/nhs-services-and-treatments/what-is-pals-patient-advice-and-liaison-service)

In NHS **Wales** this is carried out through a process known as Putting Things Right and further information is available at: gov.wales/nhs-wales-complaints-and-concerns-putting-things-right

In **Scotland** contact the Patient Advice and Support Service at: cas.org.uk/pass

In **Northern Ireland** further information can be found at: nidirect.gov.uk/articles/raising-concern-or-making-complaint-about-health-services

The Parliamentary and Health Service Ombudsman also provide information on how what woman can expect when raising concerns:

ombudsman.org.uk/publications/my-expectations-raising-concerns-and-complaints

If maternity care was conducted outside of the national health or health boards the complaints process is equally valid but may be via different process and may include the registration body such as the Nursing and Midwifery Council (NMC) or General Medical Council (GMC).

Birthrights provide advice and information to women on maternity care services and produce some useful information for women on how to make a complaint and raise concerns: birthrights.org.uk/factsheets/making-a-complaint

Women should be supported and always be reassured that complaints will be dealt with efficiently and investigated fully.

New initiative to support improvement in perinatal pelvic health 2021

Since 2021 there has been an initiative by NHSE called the Perinatal Pelvic Health Services (PPHS). The ambition of this initiative, as part of the NHSE Long-Term Plan, is to engage local service provision to improve the prevention, identification and treatment of 'mild to moderate' pelvic floor dysfunction following birth and reduce the number of women living with pelvic floor dysfunction postnatally and in later life. The intention is that local models will respond to a set of service principles that can be adapted to suit local working practice. Please see this guide for implementation for service providers: england.nhs.uk/long-read/implementation-guidance-perinatal-pelvic-health-services

It is recognised there are differences in how women are able to access services that are available to them around the UK. The above initiative has identified that women who answer yes to any of the four questions below will benefit from specialist advice and support with pelvic floor exercises. These questions can be integrated into everyday care for those who are involved in supporting women up to one year postpartum.

1. Do you have any bladder or bowel problems?
2. Do you have any lower back, groin, hip or buttock pain?
3. Do you feel like you have separation in your stomach muscles?
4. Do you have any heaviness, pain or discomfort in your vagina?

5. Conclusion

Care of the bladder and bowel are implicit parts of care in pregnancy, labour and postnatally and the need to understand why this is important cannot be overstated. The consequences of complications can have an impact on a woman's life for a long time afterwards. Such potentially life-changing complications may also affect her relationship with her partner and wider family, as well as her ability to look after her child/children.

Women are often fearful, embarrassed or have limited knowledge of normal physiology and therefore rely on health care professionals to ensure they understand what is normal and to report anything that feels unusual or abnormal to them.

Current national guidelines from NICE/SIGN, the NMC and the OASI care bundle support best practice and include the need to communicate effectively, recognise symptoms and act accordingly. This is also an area of emerging evidence, where practices are sometimes based on experience and local learning in practice, rather than research and evidence. This creates opportunities for health care professionals to engage in enhancing care through research as well as through listening to and supporting women.

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Further resources

Association for Continence Advice aca.uk.com

Bladder and Bowel UK bbuk.org.uk

Bladder Health UK bladderhealthuk.org

Pelvic, Obstetric and Gynaecological Physiotherapy (POGP) thepogp.co.uk/default.aspx

Pelvic Floor Society thepelvicfloorsociety.co.uk

Royal College of Nursing rcn.org.uk

Royal College of Obstetricians and Gynaecologists rcog.org.uk

Teach me Anatomy (2020) teachmeanatomy.info/pelvis/muscles/pelvic-floor

RCN quality assurance

Publication

This is an RCN practice guidance. Practice guidance are evidence-based consensus documents, used to guide decisions about appropriate care of an individual, family or population in a specific context.

Description

Bladder and bowel care during childbirth is a critical part of maternity care, as the consequences can have short and long-term consequences for the woman and her family. This updated guidance provides information about bladder and bowel care throughout pregnancy, labour and into the postnatal period.

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