

# Perineal care and repair

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**Note:**

This guideline provides advice of a general nature. This statewide guideline has been prepared to promote and facilitate standardisation and consistency of practice, using a multidisciplinary approach. The guideline is based on a review of published evidence and expert opinion.

Information in this statewide guideline is current at the time of publication.

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Health practitioners in the South Australian public health sector are expected to review specific details of each patient and professionally assess the applicability of the relevant guideline to that clinical situation.

If for good clinical reasons, a decision is made to depart from the guideline, the responsible perinatal care provider must document in the patient's medical record, the decision made, by whom, and detailed reasons for the departure from the guideline.

This statewide guideline does not address all the elements of clinical practice and assumes that the individual clinicians are responsible for discussing care with consumers in an environment that is culturally appropriate and which enables respectful confidential discussion.

This includes:

- The use of interpreter services where necessary,
- Advising consumers of their choice and ensuring informed consent is obtained,
- Providing care within scope of practice, meeting all legislative requirements and maintaining standards of professional conduct, and
- Documenting all care in accordance with mandatory and local requirements

*Note: The words woman/women/mother/she/her have been used throughout this guideline as most pregnant and birthing people identify with their birth sex. However, for the purpose of this guideline, these terms include people who do not identify as women or mothers, including those with a non-binary identity. All clinicians should ask the pregnant person what their preferred term is and ensure this is communicated to the healthcare team.*

**Explanation of the aboriginal artwork:**

The Aboriginal artwork used symbolises the connection to country and the circle shape shows the strong relationships amongst families and the Aboriginal culture. The horse shoe shape design shown in front of the generic statement symbolises a woman and those enclosing a smaller horse shoe shape depicts a pregnant woman. The smaller horse shoe shape in this instance represents the unborn child. The artwork shown before the specific statements within the document symbolises a footprint and demonstrates the need to move forward together in unison.



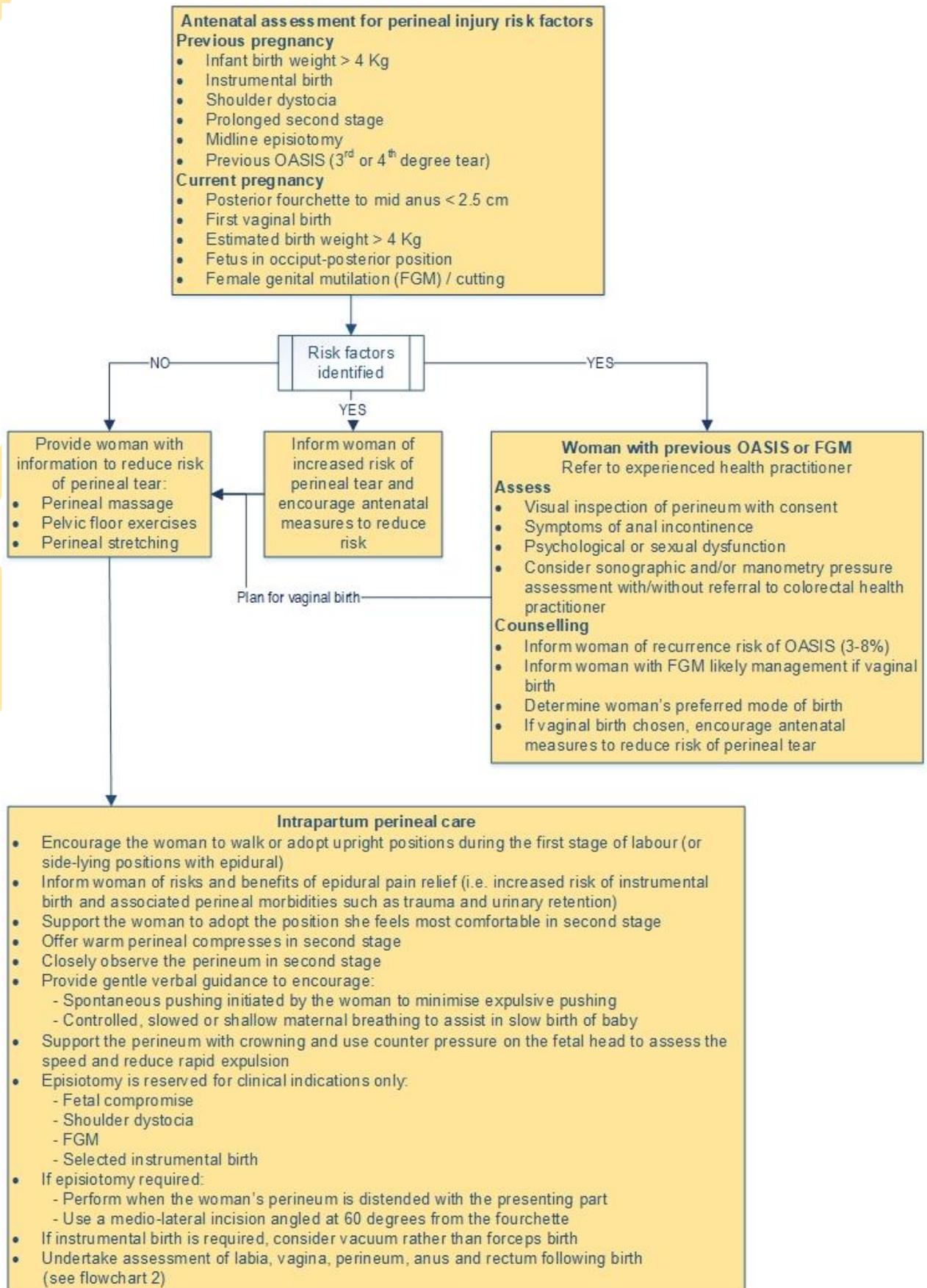
**Australian Aboriginal Culture is the oldest living culture in the world yet Aboriginal people continue to experience the poorest health outcomes when compared to non-Aboriginal Australians. In South Australia, Aboriginal women are 2-5 times more likely to die in childbirth and their babies are 2-3 times more likely to be of low birth weight. The accumulative effects of stress, low socio economic status, exposure to violence, historical trauma, culturally unsafe and discriminatory health services and health systems are all major contributors to the disparities in Aboriginal maternal and birthing outcomes. Despite these unacceptable statistics the birth of an Aboriginal baby is a celebration of life and an important cultural event bringing family together in celebration, obligation and responsibility. The diversity between Aboriginal cultures, language and practices differ greatly and so it is imperative that perinatal services prepare to respectfully manage Aboriginal protocol and provide a culturally positive health care experience for Aboriginal people to ensure the best maternal, neonatal and child health outcomes.**

## Purpose and Scope of Perinatal Practice Guideline (PPG)

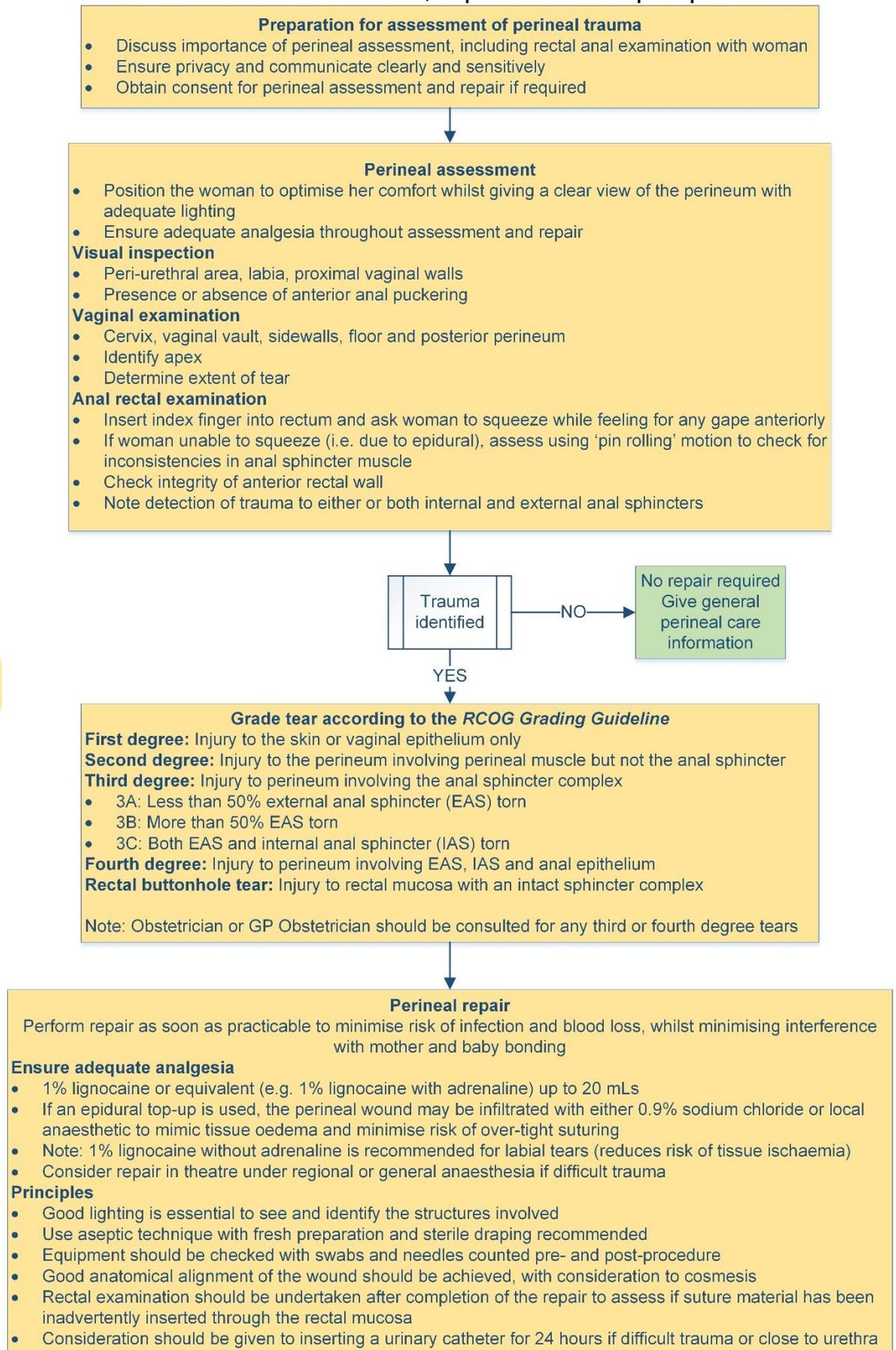
This guideline provides clinicians with information for antenatal and intrapartum perineal assessment and management, including techniques to minimise perineal trauma at birth. Perineal assessment following birth, classification of tears, perineal repair techniques and selection of suture material are detailed. Perineal care considerations following birth are included. Resources for women are included as links to external sites.



Flowchart 1: Perineal assessment and care: Antenatal and intrapartum



**Flowchart 2: Perineal assessment, repair and care postpartum**



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## Summary of Practice Recommendations

### Perineal care

Every woman should have an opportunity to have a face-to-face discussion about perineal assessment, perineal trauma and repair and ongoing care with an appropriate health care professional.

Every woman should be offered information and education in the antenatal period on strategies that may reduce the risk of perineal morbidity.

If the woman has a history of previous Obstetric Anal Sphincter Injury (OASI) (third and fourth degree tears) or female genital mutilation/cutting (FGM/C), refer her to the obstetric team for review.

The woman should consent prior to perineal assessment, examination and/or repair.

Warm compresses applied during the second stage of labour at the commencement of perineal stretching are recommended as they may reduce perineal trauma and third and fourth degree tears.

The use of controlled slowed or shallow maternal breathing should be encouraged and supported to birth the baby slowly.

Support the perineal area during birth to minimise perineal injury.

Use of an episiotomy should be limited to cases where clinically indicated.

If indicated episiotomy should be performed when the woman's perineum is distended with presenting part using a medio-lateral incision at a 60 degree angle from the fourchette.

Privacy should be maintained during discussion, assessment and repair.

It is recommended that all women have a genito-anal examination undertaken by an experienced clinician following vaginal birth after discussion of risks/benefits with the woman.

All perineal trauma should be graded according to Royal College of Obstetrics and Gynaecology (RCOG) grading guidelines and reviewed by a second experienced perinatal care provider to confirm diagnosis and grading.

### Perineal repair

All relevant healthcare professionals must attend training in perineal and genito-anal assessment, repair, and maintain currency in professional practice for perineal repair.

Registered midwives who have achieved training and competency in perineal repair may repair first and second-degree tears, episiotomies and uncomplicated labial tears.

Third and fourth degree tears repair should be undertaken by obstetricians, GP obstetricians or a registrar trained to repair third and fourth degree tears after discussion with a consultant. (see *Third and Fourth Degree Tears Management* PPG at [www.sahealth.sa.gov.au/perinatal](http://www.sahealth.sa.gov.au/perinatal)).

Adequate analgesia must be provided for perineal repair.

The woman should be informed as to the extent of perineal trauma and repair.

The woman should be provided with information on pain relief, aperients, diet, hygiene and the importance of pelvic floor exercises.

Document in the woman's medical record the discussion, counselling and repair of perineal trauma undertaken.

Visual assessment of the woman's perineum is recommended at repair and at each postnatal review. Findings should be communicated to the woman.



## Abbreviations

cm	Centimetre
e.g.	For example
FGM/C	Female genital mutilation/cutting
GP	General Practitioner
L	Litre(s)
mg	Milligram(s)
mL	Millilitre(s)
MO	Medical Officer
NSAIDS	Non-steroidal anti-inflammatory drugs
OASI/S	Obstetric anal sphincter injury / injuries
PFMT	Pelvic floor muscle training
PPG	Perinatal Practice Guidelines
RANZCOG	Royal Australian and New Zealand College of Obstetricians and Gynaecologists
RCOG	Royal College of Obstetricians and Gynaecologists
WHA	Women's Health Australasia

## Definitions

OASI	Obstetric anal sphincter injury (Third and fourth degree tears or Severe perineal trauma)
Perinatal care provider	The perinatal care provider is the clinician best able to provide the required clinical care in the context of the clinical circumstances and local hospital resources and structure. <sup>4</sup>

## Introduction<sup>1-4</sup>

Perineal injury related to childbirth is a common occurrence in 80 to 85% of women and the majority of women experience early postpartum perineal pain or discomfort.<sup>1</sup>

For the purpose of this PPG, perineal injury includes injury to the labia, vagina, urethra, clitoris, perineal muscles, anal sphincter or rectum. This may occur spontaneously during a vaginal birth, from the trauma of an operative birth or by an episiotomy.

Longer-term morbidity may include dyspareunia, bladder and anal incontinence, sexual morbidity, psychological and anal sphincter injury.<sup>1</sup> For further information see *Third and Fourth Degree Tear Management* PPG at [www.sahealth.sa.gov.au/perinatal](http://www.sahealth.sa.gov.au/perinatal)

Perineal tears are classified as first to fourth degree tears, dependent on the anatomical tissues involved.

## Risk factors for perineal injury

See [flowchart 1](#):

- Posterior fourchette to mid anus <2.5cm
- South East Asian ethnicity
- First vaginal birth (including if previous caesarean section)
- Birthweight of baby > 4kg
- Occipito-posterior position at commencement of labour
- Instrumental birth
- Shoulder dystocia
- Prolonged second stage
- Midline episiotomy
- Previous OASIS (3<sup>rd</sup> or 4<sup>th</sup> degree tears)
- Female genital mutilation/cutting (FGM/C)



## Perineal care and information for women

### Assessment and communication<sup>1,4</sup>

Effective communication is central to a woman's care.

A comprehensive assessment of medical, surgical, familial and obstetric history is required. Visual inspection of the perineal area assists assessment. If a history of previous obstetric anal sphincter injury (OASI) or female genital mutilation/cutting (FGM/C) is evident, refer to obstetric team for timely review. (see *Female Genital Mutilation* PPG at [www.sahealth.sa.gov.au/perinatal](http://www.sahealth.sa.gov.au/perinatal))

Referral to a mental health professional may be appropriate following medical review if psychological issues resulting from previous perineal injury are identified.<sup>2</sup>

Offer the woman and her partner antenatal information and education on measures that may minimise the risk of perineal injury (see [Resources for Women](#)). This includes measures that protect against:

- Perineal injury
- Perineal pain
- Pelvic floor dysfunction

### Antenatal techniques to reduce perineal trauma

#### Perineal massage<sup>1,4,5</sup>

Perineal massage may reduce the incidence of severe perineal trauma.

Perineal massage during the last month of pregnancy (once or twice a week from 35 weeks) may help the perineal tissue expand more easily during birth especially in the woman having her first vaginal birth. The woman should be informed in the antenatal period as to the benefits of and technique for perineal massage.

The woman's right to decline perineal massage should be respected by clinicians.

#### Pelvic floor muscle training

Women should be informed about the benefits of doing regular pelvic floor muscle training (PFMT) throughout pregnancy and following birth.

Pelvic floor exercises commenced in early pregnancy have been shown to be effective in reducing urinary incontinence in late pregnancy and up to six months after birth.<sup>6</sup> It is possible that the effects of PFMT might be greater in certain groups of women (e.g. women having first baby, women experiencing bladder neck hypermobility in early pregnancy, women with a large baby or those who experience a forceps birth).

Women with a history of pelvic floor dysfunction (e.g. previous third or fourth degree tear, pelvic floor incontinence / surgery) should be referred for medical review in line with the *Australian College of Midwives National Midwifery Guidelines for Consultation and Referral*<sup>7</sup>. Consider referral to a health professional that specialises in pelvic floor exercises (continence nurse/midwife or women's health physiotherapist).

#### Perineal stretching devices<sup>1,8</sup>

There is no evidence to support the use of perineal stretching devices (including Epi-No birth trainer<sup>®</sup>) used in the latter part of pregnancy to stretch the perineum and reduce the rates of severe perineal trauma and episiotomy.

Antenatal perineal massage is an effective alternative to perineal stretching devices.

## Intrapartum techniques to reduce perineal trauma

### Maternal position

Encourage the woman to adopt the position in which she is most comfortable.

Current research<sup>9</sup> suggests several possible benefits for upright posture in the second stage of labour in women without epidural anaesthesia; such as a small reduction in the duration of second stage (mainly from nulliparous group), a reduction in fetal heart rate abnormalities, episiotomy rates and assisted births, but a small increase in first and second degree tears, with no difference in rate of third and fourth degree tears. Kneeling and all-fours positions for birth may increase the incidence of an intact perineum.<sup>1</sup>



High-quality evidence<sup>10</sup> shows that women with epidurals who move between side-lying positions and avoid lying flat on their back experience more normal births and are more satisfied with their labour and birth without affecting other maternal or fetal outcomes when compared with upright positions.

Women should be advised of the benefits of adopting different positions in labour and birth to reduce interventions and perineal trauma.

### **Warm perineal compress**<sup>1,2,4,11</sup>

Whilst application of warm perineal compresses applied with the commencement of perineal stretching in the second stage of labour do not seem to have an effect on the rate of intact perineum or episiotomy, compresses do appear to reduce the incidence of third and fourth degree tears.

With the woman's consent, apply warm compresses to the woman's perineum during the second stage of labour at the commencement of perineal stretching to help reduce the risk of perineal trauma and intrapartum perineal pain. The use of a standard hospital perineal pad with water of a safe temperature should be offered to the woman at the commencement of perineal stretching, except for the woman having a water birth.

A woman may have altered or reduced perineal sensitivity, therefore assessment of water temperature is important prior to each warm compress application.

Encourage the woman to report any discomfort. Discontinue use if the woman expresses signs of discomfort, overheating and/or at the request of the woman.

### **Temperature of the warm compress**

Ensure water is the correct temperature. The perinatal care provider should note:

- Water can be used only from a temperature-controlled tap that has been tested to deliver water between 38-44 degrees Celsius
- Hospitals or birth sites without temperature-controlled taps must ensure water temperature is between 38-44 degrees Celsius prior to application
- Water can be tested in all sites using a standard thermometer
- For hospitals or birth sites without temperature-controlled taps add 300mL boiling water to 300mL cold tap water (cold water should be added in the container first for safety). Test water temperature prior to application
- Replace water entirely every 15 minutes to ensure a correct temperature is maintained
- **Do NOT** 'top up' or add hot water as a correct temperature cannot be maintained
- It is reasonable to suggest reapplying a warm compress at a later stage with consent of the labouring woman. The amount of time the compress was in place and any reasons for removal should be documented in the woman's medical record
- It is acceptable to use warm compresses in the presence of an epidural providing due care is taken to assess the heat of the warm compress prior to its application as the woman may not be able to necessarily discriminate the temperature

## **Birth techniques**

### **Verbal guidance**

Evidence does not support any specific pushing techniques (e.g. delayed pushing versus immediate pushing, bearing down versus spontaneous pushing) for the protection of the perineum.<sup>1</sup>

Encourage the woman to trust her body and to spontaneously push according to her own bodily instincts without directed pushing. However, use gentle verbal guidance to encourage controlled, slowed or shallow maternal breathing to birth the fetus slowly.<sup>2</sup>

### **Support the perineal area**

The woman's perineal area should be supported in accordance with ongoing clinical assessment once the presenting part is distending the perineum.<sup>2,12</sup>

Women's Health Australasia (WHA)<sup>2</sup> recommend support of the perineum with the dominant hand. Counter-pressure to the fetal head using the non-dominant hand should be used. It is important for the clinician to evaluate the speed at which the fetal head is progressing to allow the use of appropriate counter-pressure to allow progress but prevent uncontrolled expulsion.



Note:

- Support of the perineum is not recommended in breech birth. Refer to *Breech Presentation* PPG at [www.sahealth.sa.gov.au/perinatal](http://www.sahealth.sa.gov.au/perinatal)
- Ensure a 'hands off approach' for the woman having a water birth. Refer to *First Stage Labour and Birth in Water* Clinical Directive at [www.sahealth.sa.gov.au/perinatal](http://www.sahealth.sa.gov.au/perinatal)
- Although access to the perineum is necessary for the achievement of perineal support at crowning, it should never be a reason to restrict a woman's movement during the second stage

**Birth of the body<sup>2</sup>**

The perinatal care provider should:

- Note the time of the birth of the fetal head and then wait for restitution to occur
- Continue to support the perineum as they encourage the woman to push gently to birth the baby's shoulders. In the event that the shoulders do not birth spontaneously, the clinician should remove the dominant hand and apply gentle downward traction towards the woman's anus
- Allow the posterior shoulder of the fetus to be released following the curve of Carus, protecting the perineum throughout this step
- Support the delivery of the baby's body by moving both hands in line with the emerging body

**Interventions**

**Epidural**

Epidural regional analgesia can be an effective form of pain relief in labour. However, there is an increased risk of instrumental birth and associated perineal morbidities including urinary retention and perineal trauma.<sup>10,13</sup> All women should be fully informed of the associated risks and benefits and verbal informed consent should be obtained.

**Episiotomy**

Routine episiotomy is not protective for pelvic floor dysfunction or incontinence and increases the risk of severe perineal/vaginal trauma.<sup>14</sup> Episiotomy is associated with more anterior vaginal trauma and long-term morbidity.

The Cochrane review assessing routine versus 'selective' use of episiotomy found a slight reduction in severe perineal tears (2.5/100 versus 3.6/100) in the selective group. 'Selective' indications were either for fetal compromise and/or to prevent severe perinatal trauma.<sup>14</sup>

Where episiotomy is clinically indicated, a woman must be fully informed of the associated risks and benefits and verbal informed consent should be obtained. Episiotomy is appropriate when clinically indicated:

- Fetal compromise
- Female genital mutilation / cutting (see *Female genital mutilation* PPG available at [www.sahealth.sa.gov.au/perinatal](http://www.sahealth.sa.gov.au/perinatal))
- Shoulder dystocia (see *Shoulder Dystocia* PPG available at [www.sahealth.sa.gov.au/perinatal](http://www.sahealth.sa.gov.au/perinatal))
- Selective use in operative vaginal birth<sup>2,15</sup>

Note: Some guidelines suggest 'consider' episiotomy with ventouse birth whereas 'strongly consider' with forceps birth. The WHA perineal care bundle<sup>2</sup> recommends episiotomy for women having their first vaginal birth with instrumental assistance. However, the role of routine episiotomy for instrumental birth remains unclear.<sup>1</sup>

The role of prophylactic episiotomy in subsequent pregnancy is not known especially in women with a history of OASI and episiotomy should only be performed where clinically indicated.<sup>1</sup>

Right medio-lateral episiotomy is recommended over midline incisions to prevent OASI. Where right medio-lateral episiotomy is indicated, careful attention should be taken to ensure it is angled 60 degrees away from the midline when the perineum is distended.<sup>2</sup>

An incision is made 3 to 5 cm in length from the fourchette following the administration of an appropriate local anaesthetic (e.g. 1% lignocaine).<sup>2</sup>



### Instrumental Assisted Births

Perineal support should be used during assisted births.<sup>2</sup> In these instances, the technique for perineal support is modified. If a single medical officer (MO) is performing the instrumental procedure, at the point at which the baby's head is extending, then the MO should change the hand controlling the instrument from the dominant hand to the non-dominant hand and use the dominant hand to support the perineum (including after an episiotomy has been cut).

If two clinicians are available during an instrumental birth, the assistant will apply support from one hand on the perineum during the birth of the baby's head (including after the episiotomy has been cut) by the instrument of choice. On crowning, the MO should control the speed of the birth of the head and control the delivery of the shoulders.<sup>2</sup>

### Genito-anal examination

Accurate diagnosis and effective care of perineal injuries requires systematic perineal assessment.<sup>2,4</sup> The cervix, vagina, perineum and labia should be gently examined to identify any tears and assess need for suturing.<sup>2</sup>

A recto-anal examination by an experienced clinician is also recommended for ALL women who have birthed vaginally, including those with an intact perineum. Women should be provided with information regarding benefits and risks of examination. Verbal consent is required prior to examination.<sup>2</sup>

The rectal examination is performed using the following technique:

- Insert the index finger into the woman's anus and ask the woman to squeeze.
- The separated ends of a torn external anal sphincter will retract backwards and a distinct gap will be felt anteriorly
- When regional analgesia affects muscle power, assess for gaps or inconsistencies in the muscle bulk of the sphincter by placing the index finger in the anal canal and the thumb in the vagina and palpate by performing a 'pill-rolling motion'
- Assess the anterior rectal wall for overt or occult tears by palpating and gently stretching the rectal mucosa with the index finger
- Any tears should be classified according to the RCOG guidelines<sup>16</sup> and documented in the woman's medical record

### Classification of perineal tears<sup>2,16</sup>

Perineal injuries sustained during childbirth are classified by the degree to which the perineum tears. It is important that assessment and grading is performed by an experienced perinatal care provider trained in perineal assessment and alert to risk factors (see [flow chart 2](#)).

A second experienced perinatal care provider should review any tear to confirm the diagnosis and the extent of the injury. All perineal trauma should be graded according to the RCOG grading guideline.

- **First Degree** includes perineal skin only
- **Second Degree** includes injury to the perineum extending into the perineal muscles but not the anal sphincter (either external [EAS] or internal anal sphincter[IAS])
- **Third degree tears** include injury to the perineum involving the anal sphincter complex are classified:
  - > 3a (Less than 50 % of EAS thickness torn)
  - > 3b (More than 50 % of EAS thickness torn)
  - > 3c ( Both EAS and IAS)
- **Fourth Degree** tears include disruption of the anal sphincter complex (EAS and IAS) and anal epithelium.  
**NB.** For further information on perineal repair and management of third and fourth degree tears refer to the *Third and fourth degree tear management* PPG available at [www.sahealth.sa.gov.au/perinatal](http://www.sahealth.sa.gov.au/perinatal)
- **Rectal buttonhole tear.** An anal or rectal mucosa tear with an intact anal sphincter complex. It is not classified as a fourth degree tear.



It is important that staff are trained in the diagnosis and repair of tears. GP obstetrician / obstetricians should be consulted for any grade 3 or 4 injuries.

For grading purposes:

- An episiotomy is identified as an episiotomy and should **not be** graded as either a tear or second degree perineal tear
- A perineal tear that goes beyond the planned episiotomy incision, should be recorded as an episiotomy with extension and graded according to the degree of perineal trauma

### Competency in perineal repair

All relevant healthcare professionals should attend training in perineal / genital assessment and repair, and ensure that they maintain these skills.<sup>1,2</sup>

A registered midwife who has achieved competency in perineal repair may repair first and second degree tears, episiotomies and uncomplicated labial tears.

Third and fourth degree repairs should be undertaken<sup>16</sup> by an obstetrician, GP obstetrician, or a registrar trained to repair third and fourth degree tears after discussion with a consultant (For further information refer to the *Third and Fourth Degree Tears* PPG at [www.sahealth.sa.gov.au/perinatal](http://www.sahealth.sa.gov.au/perinatal)).

## Perineal repair

### Principles<sup>1,2,17</sup>

#### **The following basic principles should be observed when performing perineal repairs:**

Level I evidence shows that a rapidly absorbable synthetic suture material (e.g. vicryl rapide or caprosyn) is associated with less short-term pain, less suture dehiscence and less need for resuturing of the perineum up to 3 months postpartum.

Continuous suturing techniques for perineal closure, compared to interrupted methods, are associated with less short term pain. If the continuous technique is used for all layers (vagina, perineal muscles, skin) compared to perineal skin only, the reduction in pain is even greater.

There is limited evidence that not suturing first or second degree perineal trauma is associated with poorer wound healing at 6 weeks. There is no evidence as to long-term outcomes.

Women should be advised that in the case of first degree trauma, the wound should be sutured in order to improve healing, unless the skin edges are well apposed.

Women should be advised that in the case of second degree trauma, the muscle should be sutured in order to improve healing. A two-stage repair (where the skin is apposed but not sutured) is associated with no differences in the incidence of repair breakdown but is associated with less dyspareunia at 3 months.

Studies have shown that rectal non-steroidal anti-inflammatory drugs (NSAIDs) reduce immediate perineal pain following perineal repair of first and second degree trauma and the need for additional oral analgesia. Rectal NSAIDs should be offered routinely unless contraindicated.

### Repair technique<sup>2,16,17</sup>

- Rectal examination before repair is recommended (as part of assessment above)
- Repair should occur as soon as practicable after birth to minimise the risk of infection and blood loss. There should be consideration of the needs of the woman and support of uninterrupted skin-to skin contact with her baby
- The primary goals of suturing are:
  - Closure of dead space
  - Supporting and strengthening wounds until their tensile strength has increased through healing
  - Achieving cosmesis



- Repair should only be undertaken with effective analgesia in place:
  - 1% lignocaine or equivalent (e.g. 1% lignocaine with adrenaline) up to 20mls
  - If an epidural top-up is used, the perineal wound may be infiltrated with either sodium chloride 0.9% or local anaesthesia to mimic tissue oedema and minimise over-tight suturing
  - 1% lignocaine *without* adrenaline is preferred for labial tears (reduction in the risk of tissue ischaemia)

The following basic principles should be observed when performing perineal repair:

- Perineal trauma should be repaired using aseptic techniques – with fresh equipment and sterile draping recommended
- Equipment should be checked and swabs and needles counted pre- and post-procedure
- Good lighting is essential to see and identify the structures involved
- Difficult trauma should be repaired by an experienced practitioner in theatre under regional or general anaesthesia. An indwelling catheter should be inserted for 12 hours in this circumstance to prevent urinary retention
- Good anatomical alignment of the wound should be achieved, and consideration given to cosmesis
- Rectal examination should be carried out after completion of the repair to ensure that suture material has not been inadvertently inserted through the rectal mucosa
- Following completion of the repair, an accurate detailed account should be documented covering the extent of the trauma, the method of repair, and the materials used

### **Suture material selection**<sup>17,18,19</sup>

Suture material selection depends upon:

- Nature of tissue (e.g. fascia versus skin)
- Location of the wound
- Patient specific inter-current healing problems, e.g. diabetes, Marfan's syndrome
- Required tension
- Clinician's preference

Suture materials are classified as natural or synthetic, absorbable or non-absorbable, multifilament (braided) or monofilament.

- Compared to natural (catgut or silk), synthetic sutures cause the least 'foreign-body' reactions
- Non-absorbable sutures (e.g. nylon) are less reactive than absorbable sutures
- Multifilament sutures have greater tensile strength, pliability, and flexibility, but may harbour bacteria. They are coated to help them pass relatively smoothly through tissue
- Compared with multifilament sutures, monofilament sutures are smooth surfaced and less likely to cause friction through tissue, harbour organisms or hold their knot as well

Suture strand is denoted in zeros

- The more zeros, the smaller the strand, i.e. 3-0 is smaller than 0 or 2-0
- There is less tensile strength in a smaller suture strand than a larger one
- Aim to use the smallest diameter suture that will adequately secure the damaged tissue (minimises trauma and ensures a minimum mass of foreign material is left in the body)

Knot tensile strength is measured by the force, in pounds, which the suture strand can withstand before it breaks when knotted.

The tensile strength of the tissue to be repaired (its ability to withstand stress) determines the size and tensile strength of the suturing material.

- The accepted rule is that the tensile strength of the suture should not exceed the tensile strength of the tissue
- Tensile strength can also relate to the strength of absorbable sutures e.g. the time that the suture will mechanically support the wound



## Postpartum perineal care<sup>20</sup>

### Immediate postpartum

Information should be given to the woman regarding the extent of the trauma, pain relief, diet, hygiene and the importance of pelvic floor exercises.<sup>2</sup>

Rectal non-steroidal anti-inflammatory drugs (NSAID) should be offered routinely immediately following perineal repair of first- and second-degree trauma provided these medications are not contraindicated.\*

\*Contraindications include postpartum haemorrhage, hypersensitivity to NSAIDs, and concurrent use of other NSAIDs, aspirin, and digoxin

Offer oral / rectal paracetamol (one gram), after perineal repair.

If tears are within close proximity of the urethra, consider an indwelling catheter for the first 12-24 hours as per the *Third and fourth degree tear management* and *Bladder management for intrapartum and postnatal women* PPGs (available at [www.sahealth.sa.gov.au/perinatal](http://www.sahealth.sa.gov.au/perinatal)).

### Early postpartum<sup>4,20</sup>

#### Reduce pain and swelling

Women should be advised that topical cold therapy, for example crushed ice or gel pads, are effective methods of pain relief for perineal pain. Ice should never be placed directly on skin. Advise the woman to apply cold packs for 10 to 20 minute intervals for 24 to 72 hours.

If oral analgesia is required, paracetamol should be used in the first instance, unless contraindicated. If cold therapy or paracetamol is not effective a prescription for oral or rectal NSAID medication should be considered in the absence of any contraindications. Where possible, minimise the use of codeine and other narcotics to reduce the risk of constipation.

Urinary alkalisers to reduce urine acidity and discomfort associated with grazes and tears should be offered to the woman.

#### Healing / hygiene

The postnatal woman should be advised of the importance of perineal hygiene, including frequent changing of sanitary pads, washing hands before and after doing this, and daily bathing or showering to keep their perineum clean.

The perinatal care provider should seek verbal consent prior to visual assessment of the repair and healing process at each postpartum check and share the findings with the woman.

The woman should be encouraged to visualise her perineum to assess progress, with instructions that if she has concerns with healing or signs of infection she should to seek medical review.

#### Diet

The Midwife should advise the woman of the importance of adequate oral intake of fluid and a healthy balanced diet with high fibre food choices to maintain hydration and avoid constipation. Advise the woman to drink 1.5 to 2 litres per day, preferably water-based drinks (particularly if prescribed laxatives or oral iron supplementation).

The woman should be provided information on strategies to avoid constipation and straining with defecation. (e.g. correct sitting position on the toilet - elbows on knees, leaning forward with feet supported on a foot-stool to aid defecation) - refer Continence Foundation of Australia website. <https://www.continence.org.au/>

The woman with anaemia should be reviewed by a MO and treated as clinically indicated.

#### Pelvic floor muscle exercises<sup>6</sup>

The postnatal woman should receive information and guidance from their perinatal care provider(s) regarding pelvic floor exercises. These should be provided throughout the pregnancy / birth continuum (see [Resources for Women](#)).

#### Positioning and movement<sup>4,20</sup>

Midwives should provide information and strategies to reduce perineal oedema following birth (as above).

Positioning may also assist with lying the bed flat and side-lying to rest and breastfeed, pillow-supported 'recovery' position, and avoiding overuse of sitting/propped positions.



Advise the woman to avoid activities that increase intra-abdominal pressure for 6 to 12 weeks post birth such as straining, lifting, high impact exercise and sit ups and to move in and out of bed through a side lying position.

#### **Incontinence<sup>4,7,20</sup>**

Women who have had an episiotomy and or third or fourth degree tear are more likely to experience anal incontinence.

Women with urinary and faecal incontinence should be assessed for severity, duration and frequency of symptoms. Pelvic floor exercises should be discussed and encouraged by the midwife.

If symptoms do not resolve, review by MO and consider referral to a health professional that specialises in pelvic floor exercises (continence nurse/midwife or women's health physiotherapist).

#### **Dyspareunia<sup>20</sup>**

The postnatal woman should be advised that resumption of sexual intercourse may result in possible dyspareunia 2 to 6 weeks after the birth. If a woman expresses anxiety about resuming intercourse, reasons for this should be explored on an individual basis.

If the woman having had perineal trauma, experiences dyspareunia, she should be offered an assessment of her perineum.

Strategies to alleviate dyspareunia should be provided and include:

- the use of a water-based lubricant gel
- comfortable positioning during intercourse

The woman who continues to express anxiety about sexual health problems should be evaluated (non-urgent action) and consider referral to a health professional that specialises in pelvic floor exercises and dyspareunia (continence nurse/midwife or women's health physiotherapist)

#### **Follow up after perineal injury<sup>4,7,16, 20</sup>**

At each postnatal contact, women should be asked whether they have any concerns about the healing process of their perineal wound; this might include experience of perineal pain, discomfort or stinging, offensive odour or dyspareunia.

The postnatal woman should be encouraged / recommended to:

- self-care following discharge from hospital
- seek a routine review by her GP at 2 and 6 weeks postnatal
- seek an early review by her GP if she observes signs of infection or wound breakdown
- seek an early review by her GP if she is symptomatic of anal incontinence; referral to a speciality service should be considered

For care for the woman with OASIS, refer to the *Third and fourth degree tear management* PPG available at: [www.sahealth.sa.gov.au/perinatal](http://www.sahealth.sa.gov.au/perinatal)

#### **Uncorroborated clinical measures<sup>4</sup>**

With limited evidence available to support the clinical measures listed below, SA Health does NOT recommend NOR supports:

- Perineal ultrasound to treat perineal pain or dyspareunia
- Topical anaesthetics for perineal pain
- Sitz baths
- Ray lamps
- Perineal donut cushions (may lead to formation of dependent perineal oedema and increased risk of perineal wound breakdown)
- Herbal remedies (e.g. arnica) topical or ingested



## Resources for Women

- Australian Commission on Safety and Quality in Health Care information for consumers: [\*Perineal tears: What you need to know during pregnancy\*](#)
- Women's Healthcare Australasia (WHA) Information Sheet for Women: *Reducing Perineal Tears* (translated in six different languages), available from URL: <https://women.wcha.asn.au/translated-information-sheets-reducing-perineal-tears>
- Mater Mother's Hospital information for women: [\*Perineal Massage\*](#)
- RCOG information for women: [\*Reducing your risk of perineal tears\*](#)
- Continence Foundation of Australia: [\*Pelvic floor muscle training for women\*](#)



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Appendix: Characteristics of suture material

Suture	Type	Tensile strength retention	Absorption rate	Tissue reaction
Coated Vicryl Polyglactin 910	Braided multifilament	~75% remains at 14 days ~50% remains at 21 days	Minimal until ~40 <sup>th</sup> day Complete between 56-70 days	Minimal
Caprosyn (polyglytone 6211) Covidien	Monofilament made up of glycolide, caprolactone, trimethylene carbonate and lactide	~50-60% remains at 5 days ~20-30% at 10 days Lost by 21 days	Absorbed by 56 days	Minimal
Coated Vicryl Rapide Polyglactin 910	Braided multifilament	~50% remains at 5 days Lost within 10-14 days	Minimal until ~14 <sup>th</sup> day Complete by 42 days	Minimal
Polysorb Lactomer	Braided Multifilament	~80% remains at 14 days >30% remains at 21 days	Complete between 56 <sup>th</sup> and 70 <sup>th</sup> day	Minimal
PDS II Polydioxanone	Monofilament	~70% remains at 14 days ~50% remains at 28 days ~25% remains at 42 days	Minimal until the 90 <sup>th</sup> day. Complete within 168 days	Slight
Maxon Polyglyconate	Monofilament	~80% remains at 7 days ~50% at 28 days ~25% at 42 days	Minimal until the 60 <sup>th</sup> day Complete within 180 days	Minimal
Monocryl Poliglecaprone 25	Monofilament	<b>Dyed</b> ~60-70% remains at 7 days ~30-40% at 14 days Lost within 28 days <b>Undyed</b> ~50-60% remains at 7 days ~20-30% at 14 days Lost within 28 days	Complete at 91-119 days	Minimal
Velosorb fast Covidien	Braided multifilament	~50% remains at 5 days Lost within 14 days	Complete between 40 <sup>th</sup> and 50 <sup>th</sup> day	Minimal



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### Write Group Lead

Dr Julie Tucker  
Dr Aimee Wiltshire

### Write Group Members

Lyn Bastian  
Cate Fanning  
Dr Angela Brown  
Penny Charlton  
John Coombas  
Lee Davies  
Vanessa Drummond  
Bonnie Fisher  
Danielle Juett  
Katrina Seng  
Dr Jordana Sharnberg  
Rachael Yates

### SAPPG Management Group Members

Sonia Angus  
Lyn Bastian  
Dr Elizabeth Beare  
Elizabeth Bennett  
Dr Feisal Chenia  
John Coombas  
Dr Danielle Crosby  
Dr Vanessa Ellison  
Dr Ray Farley  
Dr Kritesh Kumar  
Catherine Leggett  
Dr Anupam Parange  
Rebecca Smith  
Allison Waldron  
A/Prof Chris Wilkinson



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**Contact:** [HealthCYWHSPerinatalProtocol@sa.gov.au](mailto:HealthCYWHSPerinatalProtocol@sa.gov.au)  
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