Guideline

Health
Northern Sydney
Local Health District

Third and Fourth Degree Perineal Tears

(Obstetric Anal Sphincter Injury) Management Guidelines - NSLHD

Document Number	GE2009_129
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Intranet location/s	Clinical – Women's Health - Maternity
Summary	Trauma to the anal sphincter is a common cause of faecal incontinence with a reported incidence of 2.2% (range 0.5% - 5.8%) of vaginal deliveries in NSLHD[1] . Proper recognition, accurate repair and appropriate follow up are essential if associated maternal morbidity is to be minimised.
Author Department	Northern Beaches Maternity Unit
Contact (Details)	Maternity CMC sue.coats@.health.nsw.gov.au 9976 9624 99980943
Endorsed By	Women's Health Network
Sector/Service	Division of Women's, Children & Family Health
Audience	All staff who provide maternity care in NSLHD
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Key Words	First degree tear, Second degree tear, Third degree tear, Fourth degree tear
Status	Active

Third and Fourth Degree Perineal Tears (Obstetric Anal Sphincter Injury) Management Guidelines - NSLHD

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1. Preamble

Obstetric trauma to the anal sphincter is a common cause of faecal incontinence with this type of injury being reported at 2.2% (range 0.5% - 5.8%) of vaginal deliveries in NSLHD[1]

Proper recognition, accurate repair and appropriate follow up are essential if associated maternal morbidity is to be minimized.

2. Scope of Practice

- Registered Midwives.
- Student Midwives under direct supervision of a Registered Midwife.
- Obstetric Medical Officers

3. Guideline

3.1 Definitions

The classification of perineal tears is not standardised. The classification most widely used is:

- **First degree**: laceration of the vaginal epithelium or perineal skin only.
- **Second degree:** involvement of the perineal muscles but not the anal sphincter.
- **Third degree:** disruption (partial or complete) of the anal sphincter muscles. These can be further sub classified into
    1. **3a -** < 50% of external anal sphincter (EAS) torn.
    2. **3b -** > 50% of external anal sphincter torn.
    3. **3c –** full thickness external & internal anal sphincter torn[6]

- **Fourth degree:** EAS and internal sphincter torn and involvement of rectal mucosa[1,2].

3.2 Rationale

Up to 25% primiparous women suffer from altered faecal continence following labour.

Up to 50% of women with third or fourth degree tears suffer altered anal symptoms which include faecal urgency and incontinence of flatus, liquid stool and solid stool [2]. The recognition and adequate repair of such traumas are essential to reduce maternal morbidity.

3.3 Actions

Repair technique for third and fourth degree tears

- The repair of third and fourth degree tears requires a good light source, assistance, appropriate equipment, adequate access to the site and adequate analgesia for the woman. Therefore the repair should be performed where all of these aspects can be achieved. This will usually be in the operating theatre, but may be in the birthing unit.
- A senior obstetric medical officer experienced in third and fourth degree tear repairs should perform or supervise another medical officer with the repair.
- A stat dose of broad spectrum antibiotic cover should be administered at the time of repair. ***For example:***
    - A first-generation cephalosporin 1 gram IV.
    - Metronidazole 500mg IV.
- A repeat examination should be performed to adequately grade the tear prior to repair.
- If the rectal mucosa is disrupted then this should be repaired using interrupted 3-0 Vicryl sutures with knots in anal canal.
- Internal sphincter – Identify and suture separately from external sphincter. Identify ends, grasp and approximate with Allis forceps, suture end to end with interrupted or mattress 3-0 PDS.
- External sphincter – identify torn ends grasp with Allis tissue forceps. Mobilise using McIndoe scissors separating from ischiorectal fat laterally. Suture end-to-end or overlap and using interrupted 3-0 PDS.
- Vagina – Continuous 2-0 Vicryl Rapide
- Perineal muscles – reconstruct carefully to support the sphincter repair. Interrupted 2-0 Vicryl.
- Perineal skin – subcuticular 2-0 Vicryl Rapide.
- A rectal examination should be performed at the end of the procedure to ensure sphincter muscle bulk has been achieved.
- Ensure clear and concise notes have been recorded including documentation on the *Anal sphincter / anal mucosa repair* form (Appendix A)

- An IIMS report is required as per *PD2009_003 Maternity: Clinical Risk Management Program* as a trending incident
- Ensure that the woman and her support people are aware of what is happening at all times and that appropriate follow up is arranged.

Post repair management

- Consideration may be given to insertion of an indwelling catheter if there is vulval swelling, oedema and/or bruising (*refer guideline Bladder Care – Postnatal*)
- Broad spectrum oral antibiotic coverage should be prescribed
- Laxatives or stool softeners for about 7 – 10 days, one osmotic and one bulking agent.
- The perineal area should be inspected each day during the immediate postnatal period and assessment documented on the Postnatal Care form. When there are signs of healing evident, for example reduced swelling and bruising and reduced pain sensations described by the woman, the assessment can be a verbal one
- Ice therapy to decrease swelling for first 48 – 72 hours. Either as an ice finger or ice in sanitary pad to perineum for 20 minutes every 3-4 hours (refer clinical practice guideline *Perineal Care in the Postnatal Period*)
- Adequate analgesia such as non steroidal anti inflammatory and paracetamol should be considered. Avoid codeine as it may cause constipation. Rectal analgesia should be avoided.
- *Third and fourth degree tears information leaflet for women* (Appendix B) and *Caring for the Perineum after Childbirth* (Appendix C) to be given.
- Inpatient physiotherapy consultation where available
- Assessment of pelvic floor function (presence of “anal lift”) is required once during the postnatal period and advice given as per clinical practice guideline *Perineal Care in the Postnatal Period*
- Information and advice on pelvic floor muscle exercise instruction, dietary and defecation to be provided by physiotherapist, midwife or medical officer
- Discussion with the woman regarding the events of her birth and the significance for the next birth with respect to the perineal trauma. This should be documented on the Postnatal Care form
- Follow up:
    - Outpatient physiotherapy to be arranged prior to discharge from care.
    - Appointment for postnatal check-up visit in the antenatal clinic / gynaecology clinic to be arranged prior to discharge from care.
    - Referral to be given to woman for endo-anal ultrasound and anal manometry to take place six to twelve weeks after discharge

Management of previous third or fourth degree tears for a subsequent pregnancy

- There are no Cochrane reviews or randomised trials assessing the most appropriate mode of delivery following a third or fourth degree tear[5].
- Women with severe incontinence following a third or fourth degree tear should be offered secondary repair by a colorectal surgeon and offered caesarean section for subsequent deliveries[5].
- Symptom profile together with endo-anal ultrasound may be useful in deciding the management for subsequent pregnancies.
- It is recognised that some women will elect to complete their family prior to contemplating anal sphincter surgery. It remains to be established whether these women should be advised to undergo a vaginal delivery as the damage has already occurred and the risk of further damage is minimal[3].
- Women who do not have compromised pelvic floor function should receive information on the safety of vaginal deliveries[5]
- Current evidence does not support the routine use of prophylactic episiotomy in subsequent vaginal deliveries.
- There is a higher incidence of 3rd and 4th degree tears with midline episiotomies compared to mediolateral episiotomies and these should be avoided where possible[3].
- Encouraging the left lateral position for delivery has been observed to be a practical intervention when women were experiencing a rapid labour[4].
- Mild incontinence with faecal urgency or incontinence of flatus may be treated with dietary advice, constipating agents and physiotherapy[3].

4. References

1. *NSW Department of Health. 2007. New South Wales Mothers and Babies 2005. NSW Public Health Bulletin Supplement. 18; S-1.*
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5. Revision & Approval History

Three years

Date	Revision No.	Author and Approval

Appendix A

Hospital/Facility/Community Health Centre		M.R.N.	
Title	Family name	Consultant	
Given names		Sex	DOB
Address		Ward/Unit	

Ward _____

Explanatory Notes Over Page

Date / /

Please tick ☑

Surgeon _____ ☐ Delivery Suite ☐ Operating Suite

Assistant(s) _____ ☐ GA ☐ Epidural ☐ Spinal

Grading of Defect

☐ 3a ☐ 3b ☐ 3c ☐ 4 ☐ Isolated anal mucosal tear

☐ Extension of episiotomy

Comments _____

Repair

Anal mucosa: ☐ mucosal edges directed into anal lumen
☐ 3-0 vicryl ☐ 3-0 vicryl rapide ☐ 3-0 chronic

Internal anal sphincter:
☐ end-to-end repair ☐ 3-0 PDS ☐ other suture _____

External anal sphincter:
☐ end-to-end repair ☐ Overlapping repair ☐ 3-0 PDS ☐ other suture _____

Deep and Superficial perineal muscles:
☐ interrupted ☐ 2-0 vicryl ☐ other _____

Vaginal epithelium: ☐ continuous ☐ interrupted
☐ 2-0 vicryl ☐ 3-0 vicryl ☐ other suture _____

Perineal Skin: ☐ continuous subcuticular ☐ other _____
☐ 2-0 vicryl ☐ 3-0 vicryl ☐ other suture _____

Other labial/vulval trauma (include revision of scar tissue/FGM etc)

_____

_____

PV/PR

☐ anal mucosa intact ☐ external anal sphincter complete ☐ vaginal epithelium intact

Comments _____

Antibiotics

IV cephalosporin 1gm & flagyl 500mg ☐ stat ☐ 24hrs

Other _____ Oral antibiotics 7 days (specify)_____

IDC ☐ Yes ☐ No For removal (date & time_____

Analgesia

☐ Diclofenac 50mg po tds ☐ other (specify) _____

☐ Document **no** narcotic analgesia on medication chart/cease routine panadeine forte

Laxatives

☐ Fybogel ☐ Metamucil ☐ other (specify) _____

Follow-up

☐ Physiotherapy review on ward ☐ Referral for Endoanal ultrasound 12/52 postpartum

☐ OPD review 3-4/12 postpartum (if required)

_____

Comments_____

_____

Diagrams over page.

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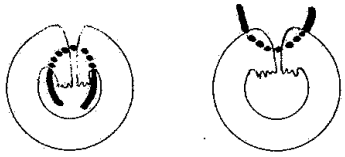
Anal Sphincter/anal Mucosa Repair

Explanatory Notes on Repair of Obstetric Anal Sphincter Injuries

Classification of 3rd &4th degree tears
3a < 50% thickness external anal sphincter
3b ≥ 50% thickness external anal sphincter (if in doubt grade as 3b)
3c full thickness external anal sphincter + internal anal sphincter defect
4 external and internal anal sphincter tear plus defect in anal mucosa

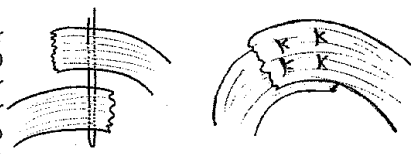
Operative Management
Ensure adequate exposure, experienced assistance and analgesia. Partial 3rd degree tears may be repaired in Birth Unit if there is effective analgesia. Repair of full thickness 3° tears and 4° tears requires deep muscle relaxation with excellent exposure and is usually better performed in theatre.

Repair of anal epithelium
Torn edges of the anal mucosa are directed into the anal lumen. Use interrupted 3-0 vicryl sutures. Repair can be performed from the vaginal or the anal approach.



Repair of internal anal sphincter
The internal anal sphincter lies between the anal mucosa and the external anal sphincter. It is paler, slightly firmer and less fibrous than the external component. Where possible it should be repaired separately from the external sphincter. Perform an end-to-end repair, approximating the margins using interrupted or mattress 3-0 PDS sutures.

Repair of external anal sphincter
For defects < 50% thickness, use an end-to-end repair. For full thickness tears perform an overlap repair using 4 x 3-0 PDS sutures. If few remaining fibres only, divide and repair as a full thickness defect. The ends of the external sphincter may need to be mobilised from the ischiorectal fat laterally to identify the full width of the muscle. Overlap repairs have been shown to have a better functional outcome than the end-to-end technique.



Antibiotics.
Give a single intra-operative IV dose of a cephalosporin and metronidazole to reduce the risk of wound infection and breakdown, followed by 7 days of similar spectrum oral antibiotics. If extensive faecal contamination and/or tissue trauma consider 24 hours of IV antibiotics.

Prevent constipation.
A bolus of hard stool may disrupt the repair. Prescribe a bulking agent eg Normacol, Fybogel, Metamucil for 10-14 days. In patients prone to constipation, continue for 2-3 months. Avoid codeine containing analgesia. Encourage high fibre diet from day 1.

Analgesia.
Best option NSAIDS eg Diclofenac ± regular paracetamol. Avoid PR analgesia. Apply icepacks to perineum. If necessary dextroproproxyphene containing analgesics eg Digesic, appear to cause less constipation than codeine.

IDC.
Advisable for 24-48 hours postpartum due to significant risk of urinary retention secondary to perineal pain and oedema.

Management of Subsequent Pregnancies
- For asymptomatic women with normal endoanal ultrasound and normal manometry, there is no evidence for an increased risk of repeat anal sphincter trauma with further vaginal delivery.
- Women with symptoms of faecal / flatus incontinence and abnormal endoanal ultrasound / anal manometry have a significant risk (?50%) of deteriorating incontinence following further vaginal delivery. Advise elective caesarean.
- There is no definite evidence for best approach in asymptomatic women with a minor defect (<1 quadrant) on endoanal ultrasound; a generous prophylactic medio-lateral episiotomy may be protective. Discuss all options with the woman.
- Larger defects, even in asymptomatic women, may be more likely to deteriorate with a subsequent vaginal delivery. Discussion of elective caesarean warranted.

Appendix B

THIRD and FOURTH DEGREE TEARS

Information for Women

Having a tear during vaginal birth is very common. Depending on the size and site of the tear and whether there is bleeding or not, will determine the need for suturing. As the vagina and anus are close to each other, sometimes the tear or episiotomy may involve the muscles in the anal area. This is known as third degree tear. In rarer cases the tear may extend through the muscle into the bowel which is known as a fourth degree tear.

What happens now?

- You will be given a course of antibiotics to reduce the risk of the area becoming infected.
- Regular pain relief is recommended.
- You should open your bowels when you get the urge – delaying bowel motions may lead to constipation and increased discomfort.
- You will be recommended medication to keep your bowel motions soft and regular.
- You will be educated on pelvic floor exercises and may be seen by a physiotherapist.
- Your stitches will be checked frequently during your postnatal care.
- Prior to discharge from care an appointment for 6 weeks will be made for you to see a Doctor in the Clinic, to ensure that the tear has healed and you have no ongoing problems.

Things to tell us at the appointment:

- Let us know if you have any difficulties holding your bowel motions or flatus.
- Tell us if you have any difficulties with intercourse.

What about my next pregnancy?

- If the tear heals well and you have no ongoing symptoms there is no reason why you cannot have a vaginal birth next time.
- Sometimes a Caesarean may be considered if the tear is extensive or the symptoms remain.

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2. RCOG., Methods and materials used in perineal repair - guideline 23. 2004, Royal College of Obstetricians and Gynaecologists: London.

Appendix C

At your 6 week post natal GP follow up discuss referral to a health professional if:

- You are experiencing poor control of bowels.
- Have altered bladder control/sensation
- Sexual discomfort

Gynaecology Outpatient Clinics

Area Health Physiotherapists:- Can be found across Northern Sydney Central Coast Health Service. You will require an allied health referral.
These can be obtained on discharge from hospital after the birth of your baby. Child and Family Health Nurses and General Practitioner can also refer to local area health physiotherapist.

Phone numbers:	**Gosford:** 4320 3314		**Woy Woy:**	4344 8446
	RNSH:	9926 8705	**Hornsby:**	9477 9448
	Manly:	9976 9725	**Ryde:**	9858 7524

Private physiotherapist:- Contact Continence Advisors for a list of local professionals with an interest in women's health.

Continence Nurse Advisers:- Can be found across Northern Sydney Central Coast Health Service and patients can self refer or be referred by allied health professional or your General Practitioner.
Contact numbers: Erina 43679600
Wyong 43569300
Northern Sydney Area 9816 0550

Other Resources:
Continence Helpline: Freecall 1800330066
National Continence Website: www.continence.org.au

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Developed by NSCCAHS Physiotherapy/Continence Adviser /Midwife Interest group 2009

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NORTHERN SYDNEY CENTRAL COAST
NSW HEALTH

CARING FOR YOUR PERINEUM AFTER CHILD BIRTH

DRAFT

FIRST WEEK TO 10 DAYS

Following the birth of you baby and especially if you have sustained perineal trauma, there are a few things you should know. Although you may be keen for things to return to normal as soon as possible it is important to allow your own body to begin its healing process. It is highly likely that you will experience one or more of the following: swelling, bruising, grazing, or stitches.

Below are a few simple steps for you to follow:

NB: Altered bladder and bowel sensation requires special attention and should be reported to your health professional.

1. HYGIENE:

Hand held showers directed towards the perineum with warm water will improve blood flow and help disperse swelling and dried blood. If you prefer you may have a bath. Remember to pat dry carefully afterwards. You can repeat this several times per day. This is an excellent way to obtain pain relief.

The use of soaps, talcum powders, and creams is not recommended.

Remember to shower after opening your bowels and change your pad frequently to reduce the risk of infection. [1]

2. RESTING PERINEUM:

If you have sustained an injury elsewhere in the body it is likely that you applied the R.I.C.E regime. i.e. Rest, Ice, Compression and Elevation. It is no different for perineum injuries. [1,2]

First 48-72 hours:

Rest:
In the first few days it is important to take the pressure off the perineum by sitting or preferably lying for short periods. In particular you should also avoid lifting or straining, like pushing movements or long periods of standing. [1,2]

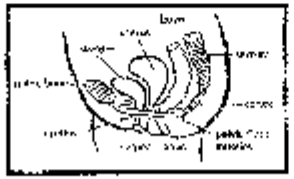
Ice:
Ice fingers or ice packs should be wrapped in a wet cloth and applied externally to reduce pain, inflammation and swelling. Apply for 2 –15 minutes at a time every two hours. This is most effective for the first 72 hrs. [1,2]

Compression:
Close fitting pants and pads usually feel more comfortable by adding support to the perineum. [1,2]

Elevation:
Lying down combined with gentle pelvic floor exercises is the best option for assisting the perineum to heal. Whenever feeding your baby sit with feet supported or try feeding whilst resting on your side. [1,2]

3. PELVIC FLOOR EXERCISES:

It is important to commence gentle contractions of the pelvic floor muscles to stimulate blood flow and facilitate healing. These exercises can be done lying down initially, and progress to sitting and standing as able.



- To do this, squeeze and draw up the muscles around your anus, vagina and urethra as strongly as possible. Try to hold this squeeze and lift for 2-3 seconds then relax completely. Repeat this exercise 3-5 more times, at least 6 times a day. Gradually increase your strength by holding the lift and squeeze longer.
- It is important to include 3-10 quick strong contractions holding each exercises for only 1 second—this will train the muscles to contract quickly when you cough, laugh or sneeze. [3,4,5]

4. TOILETING POSTURE: (Emptying bowels)

Reproduced by kind permission of Kay Rothwell, Nurse Consultant in Bladder and Bowel Dysfunction, Wendy Ness, Colorectal Nurse Specialist.

Try not to put off emptying your bowels. This may lead to further problems. It is also essential that you empty the rectum without straining or breath holding. Make sure that your abdomen bulges out and is not pulled inwards and that your back is straight. Ensure that your knees are higher than your hips. You can use a footstool or telephone book to achieve this (See diagram). You can support your perineum when emptying your bowels by wrapping your hand in toilet paper and apply upward perineal pressure as you empty your bowels. After emptying a perineal shower is recommended. [5,6]

5. DIET & PREVENTION OF CONSTIPATION:

Avoiding constipation when you have had a perineal injury is important. It is essential to eat a healthy diet rich in fresh fruit and vegetables, and drink to thirst (approximately 2-3 litres/day).
You may benefit from fibre supplements such as psyllium husks or other soluble fibre. Discuss with your health professional or pharmacist for more information. The sort of stool you are aiming for should be "like a sausage or snake, smooth and soft". [7,8]
Gentle exercises such as walking will also assist with regularity. [9]

6. SEXUAL ACTIVITY:

Sexual activity can resume whenever you and your partner both feel that it's the right time for you.
Be guided by your pain, comfort and desire. It is an individual decision.
Lubricant may be needed due to hormonal changes. [10]
Discuss your concerns with your health provider.

7. FOLLOW UP

See your GP or specialist in 3 to 6 weeks as guided by your maternity carer. If you have had a 3rd or 4th degree tear, have ongoing bladder or bowel concerns, or ongoing sexual discomfort, seek a referral from your GP to a gynaecological clinic, women's health physiotherapist, continence nurse advisers, or women's health nurse.