

THIRD AND FOURTH DEGREE TEARS

DEFINITION

A **third degree tear** is an injury to the perineum involving the anal sphincter complex and can be classified in three types:

- 3a:** Less than 50% of the External Anal Sphincter (EAS) thickness torn.
- 3b:** More than 50% of the EAS thickness torn.
- 3c:** Both the EAS and the Internal Anal Sphincter (IAS) torn.

A **fourth degree tear** is an injury to the perineum involving the anal sphincter complex (external and internal) and the rectal mucosa.

NOTE:

If there is any doubt about the degree of third degree tear it is advisable to classify it to the higher degree^{1,2,3}

RISK FACTORS

Risk factors for third-degree tears have been identified in a number of retrospective studies.³ Taking an overall risk of 1% of vaginal births, the following factors are associated with an increased risk of a third or fourth degree tear:

- birth weight over 4 kg
- persistent occipito posterior position
- nulliparity
- nutritional status
- induction of labour
- epidural analgesia
- second stage longer than 1 hour
- shoulder dystocia
- midline episiotomy
- Instrumental birth, i.e. forceps
- Position, i.e. squatting
- With increased parity use of birthing stool
- Lithotomy

PREVENTATIVE FACTORS

- Episiotomy technique, when indicated, at 60 degrees at crowning^{4,5}
- Management of epidural, waiting 1 hour for passive descent prior to active second stage
- Position for birth, i.e. lateral (avoid supine)
- Use of perineal protection/support
- Application of warm compresses during second stage
- Good communication

NOTE:

All women having a vaginal birth are at risk of sustaining obstetric anal sphincter injuries (OASIS) or an isolated rectal buttonhole tear.

All women following a vaginal birth should have a systematic examination of the vagina, perineum and a digital rectal examination to assess the severity of damage particularly prior to suturing.³

Any suspicion of a third or fourth degree tear should be referred to an Obstetric Registrar or Consultant for assessment.

PRINCIPLES OF REPAIR

1. It is recommended that repair is carried out in the operating theatre under regional or general anaesthesia as this provides:
 - appropriate assistance
 - aseptic conditions
 - appropriate instruments
 - adequate light
 - correct processes around swab counts and
 - effective pain relief for the woman so that the anal sphincter is relaxed enabling repair without tension to the tissue.
2. All repairs should be carried out either by:
 - Consultant Obstetrician
 - Competency Certified Registrar
 - Registrar/SHO directly supervised by a Consultant Obstetrician

The repair should be documented on perineal injury repair record (Ref 8645).
3. The woman should be informed about:
 - The nature of the injury
 - The need for prophylactic antibiotics and laxatives
 - The importance of community follow up at 6 weeks and 6 months after birth (Refer to Canterbury Community HealthPathways <https://canterbury.communityhealthpathways.org/54082.htm>)
 - The importance of early reporting of any symptoms of incontinence or pain

PROCEDURE FOR REPAIR

1. The anal mucosa should be repaired with either continuous or interrupted 2/0 or 3/0 vicryl (polyglactin 910) as this may cause less irritation and discomfort than PDS (polydioxanone). Figure of eight sutures should be avoided in the anal mucosa as they may cause discomfort and can cause ischaemia.
2. Sphincter muscles (EAS & IAS) should be repaired with 2/0 or 3/0 PDS³. Women should be informed that it may take a long time for these sutures to dissolve (around 6 months) and that they may be aware of the knots around the anus.
3. The repair of a full thickness EAS (3a or 3b) and IAS 3c can be repaired using an overlap or an end to end (approximation) method^{2,3} with equivalent outcomes.
4. If it is recognised that the external anal sphincter is partially torn (3a, 3b), the edges should be grasped and end to end technique used⁴.
5. A separate repair of the IAS is advised, by interrupted or mattress sutures (not overlap) as this improves likelihood of subsequent anal continence⁴.
6. The remainder of the repair is carried out as for a second degree tear or episiotomy.
7. A rectal examination is performed after the suturing to ensure sutures are not inadvertently inserted into the rectal mucosa. If sutures are identified they should be removed³.
8. Document the repair, including completing the diagram if needed on the perineal injury repair record ([Ref.8645](#)).

POST REPAIR MANAGEMENT AND FOLLOW UP

1. Antibiotic prophylaxis should be given
 - IV amoxicillin/clavulanate 1.2 g STAT at repair, followed by
 - Oral amoxicillin/clavulanate 625mg TDS for 3-5 days

For patients with mild Penicillin allergy:

 - IV cefazolin 1 g (or IV cefuroxime 750 mg) and IV metronidazole 500 mg STAT at repair, followed by
 - Oral cefaclor 500 mg TDS and metronidazole 200 mg QID for 3-5 days

For patients with severe Penicillin allergy:

 - IV clindamycin 600 mg and IV gentamicin 5-7 mg/kg STAT at repair, followed by
 - Oral clindamycin 300 mg QID and ciprofloxacin 500 mg BD for 3-5 days
2. Analgesia should be prescribed:
 - Rectal diclofenac 100mg and paracetamol 1.5g STAT at completion of repair
 - Oral non-steroidal anti-inflammatory and paracetamol as required
 - Avoid opioids as this may cause constipation
3. A stool softener should be prescribed to reduce the risk of wound dehiscence.⁴— lactulose 10mls BD for 10 days Kiwicrush or Sodium docusate tablets are an acceptable alternative. Aim to keep the stool soft but not loose.⁴

4. Ice therapy, to decrease swelling for first 48-72 hours. Apply an ice pack in a sanitary pad to the perineum for 20 minutes every 3-4 hours.
5. Referral to the physiotherapist ([Ref.7304](#)) should be made on arrival to the Maternity Ward where the woman should remain an inpatient for 24 hours. If not reviewed by the physiotherapist prior to discharge, ensure referral has been made and the physiotherapist will make phone contact with the woman to ascertain if an appointment is necessary.
6. On admission to the Maternity Ward record on Floview and flag.
7. Post birth the obstetrician performing the repair should ensure that the woman has a full understanding of the implications of the tear and the plans for subsequent community follow up.
8. The woman should be provided with a leaflet 'Third or Fourth Degree Perineal Tear' ([Ref.2402151](#)). The discharge letter to the LMC and GP should contain information regarding the grade of perineal injury and repair.
9. The woman should be assessed by her LMC at the usual 4 to 6 week check to ensure perineum healing, pain resolved and no faecal incontinence. The 6 week checklist ([Ref.6742](#)) is completed by the LMC and if issues are identified a referral is made to the Physiotherapy Department.
10. If no referral is required, the woman is reviewed by the GP or practice nurse at six months post birth ([Ref.6678](#)). The woman is advised to contact the GP or practice nurse if this doesn't happen automatically. If issues are identified a referral is made for a non-acute gynaecology assessment.

THIRD AND FOURTH DEGREE TEARS AUDIT STANDARDS

Collection of data for audit may include:

- Number of third and fourth degree tears as a percentage of vaginal deliveries
- Review of documented systemic examination of the vagina, perineum and rectum prior to suturing of the obstetric anal sphincter injury.
- Proportion repaired in theatre, type of analgesia, suture material and method of repair.

FUTURE BIRTHS

- All women who sustained a third or fourth degree tear with compromised bowel function should be referred to clinic for consultation in subsequent pregnancies.⁵ Opportunity should be given to discuss individual symptoms and concerns in regard to mode of birth for current pregnancy. This should be clearly documented in the clinical notes⁴.
- The role of prophylactic episiotomy in subsequent pregnancies is not known and therefore an episiotomy should only be performed if clinically indicated at the time of birth.

REFERENCES

1. Burke S, Robertson R, Leggat A, Keats N, Coster J, et al. Repair of Third and Fourth Degree Tears 2016 data audit. NZ: Canterbury District Health Board; 2018.
2. Koelbl H, Igawa T, Salvatore S, Laterza RM, Lowry A, Sievert KD, et al. Pathophysiology of urinary incontinence, faecal incontinence and pelvic organ prolapse. In: Abrams P, Cardozo L, Khoury S, Wein A, editors. Incontinence. 5th ed. [place unknown], 2013: 261-359
3. RANZCOG. OASI Care Bundle [Internet]. UK: Royal College of Obstetricians and Gynaecologists; 2017 [cited 11 March 2019]. Available from: <https://www.rcog.org.uk/OASICareBundle>
4. RCOG (2015) Third and fourth degree perineal tears, Management (Green Top Guideline No. 29). [Internet]. UK: Royal College of Obstetricians & Gynaecologists; June 2015 [cited 11 March 2019]. Available from: <https://www.rcog.org.uk/en/guidelines-research-services/guidelines/gtg29/>
5. Sultan AH, Monga AK, Kumar D, Stanton SL. Primary repair of obstetric sphincter rupture using overlap technique. 9 May 1999. British Journal of Obstetrics Gynaecology, 106 (4) :318-23
6. Ministry of Health (2012) Guidelines for Consultation with obstetric and Related Medical Services (Referral Guidelines) Wellington Ministry of Health.

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1. Fitzpatrick M et al (2000). A randomized clinical trial comparing primary overlap with approximation repair of third degree obstetric tears. American Journal of Obstetric & Gynaecology, Nov;183(5): 1220-4
2. Mahony R et al (2004) Randomized, clinical trial of bowel confinement vs. laxative use after primary repair of a third degree obstetric anal sphincter tear. Dis Colon Rectum. Jan;47(1):12-7. Epub 2004 Jan 14.
3. <https://www.cdhb.health.nz/wp-content/uploads/59865cd9-glm0062-progress-in-labour.pdf>

APPENDIX A PERINEAL INJURY REPAIR RECORD

Canterbury
District Health Board
Te Poari Hauora o Waitaha
CHRISTCHURCH WOMEN'S HOSPITAL
ALIED HEALTH

SURNAME: _____ NHC
FIRST NAME: _____ DCB
ADDRESS: _____
CONTACT TELEPHONE NUMBER(S): _____ (with patient used)

Perineal Injury Repair Record
COMPLETE FOR ALL REPAIRS

Birth
 Spontaneous vaginal birth Ventouse Forceps Baby weight: _____ g
 Perineal Support at time of birth: 2nd stage YES NO
 Maternal position at time of birth: _____

Perineal injury
 Episiotomy
 First degree (perineal skin only)
 Second degree (perineal body and skin)
 3a < 50% External Anal Sphincter (EAS) thickness torn
 3b > 50% EAS thickness torn
 3c EAS and Internal Anal Sphincter (IAS) torn
 Fourth degree (above plus rectal mucosa)
 (Note: Maximo, Gembebe 20/2009, 7th and 4th, Degree 7a-7d)

Anaesthetic
 Local infiltration Pudendal block Epidural Spinal General
 Ballooning cream Operating theatre IV antibiotics

Repair location
 Vaginal mucosa Perineal muscle Perineal skin Anal sphincter(s)
 Rectal mucosa Rectal mesorectum (below and after surgery)
 Analgesia given: _____
 Vaginal packs inserted: 1. Prior to removal: _____ mL 2. Total postpartum: _____ mL
 EMB: _____

SWABS, INSTRUMENTS AND NEEDLE COUNT/VAGINAL PACKS INSITU

Instruments		Swabs	Needles	Vaginal packs in situ
1 st count	Delivery set (4)	Suture set (4)		Number of packs in situ:
Final count				
First checker	NAME:	DATE/TIME:		<input type="checkbox"/> Plan for removal documented
Second checker	NAME:	DATE/TIME:		

POSTPARTUM CARE FOR THIRD AND FOURTH DEGREE TEARS
 Perineal swabbers Analgesia Oral antibiotics prescribed for 3-6 days
 Patient given information sheet 'Third or Fourth Degree Perineal Tear' (Ref: 7310)
 Perineal 3rd & 4th Degree Tear & Wound Checklist (Ref: 8742) Recall GP 6 Month (Ref: 5675)
 Physiotherapy and Senior Obstetrician review on ward/warding (Ref: 7304)
 ACC forms (ACC048 and ACC0152) to be given

REPAIR PERFORMED BY: _____ Designation: _____ Date: _____
 Supervised by: _____ Designation: _____ Signature: _____
Ref: 8645 Allister & Gies, Under 100 February 2005

(Ref.8645)

APPENDIX B ALLIED HEALTH REFERRAL – CWH INPATIENTS

Canterbury
District Health Board
Te Poari Hauora o Waitaha
CHRISTCHURCH WOMEN'S HOSPITAL
ALIED HEALTH

SURNAME: _____ NHC
FIRST NAME: _____ DCB
ADDRESS: _____
CONTACT TELEPHONE NUMBER(S): _____ (with patient used)

Allied Health Referral – CWH Inpatients

PATIENT DETAILS
 Urgency: URGENT ROUTINE Timeframe to be seen:
 Location: GYNAECOLOGY MATERNITY BIRTHING SUITE EDD: _____
 Admission date: _____ Time: _____ Room: _____
 Discharge date: _____ Time: _____ Room: _____

Diagnosis
 Reason for referral: Admission likely to change after their ability to perform their day to day tasks
 At home (eg household management/self-care) At work

OCCUPATIONAL THERAPY Fax: 60085
 Specialist equipment needed:
 Shower stool Commode Other: (specify) _____
 Additional comments: _____

Referrer details Print name: _____ Date: _____ Time: _____

PHYSIOTHERAPY Fax: 60442
 Please specify here or tick below:

Respiratory <input type="checkbox"/> SPO ₂ <input type="checkbox"/> SOB <input type="checkbox"/> Difficulty clearing secretions	Pelvic floor difficulties <input type="checkbox"/> Bowel control <input type="checkbox"/> Bowel control	Musculoskeletal <input type="checkbox"/> Pain <input type="checkbox"/> Mobility issues	Breast care <input type="checkbox"/> Engorgement <input type="checkbox"/> Blocked ducts <input type="checkbox"/> Mastitis
Postnatal care <input type="checkbox"/> Multiple pregnancy/birth <input type="checkbox"/> > 4 kg baby <input type="checkbox"/> Prolonged 2 nd stage <input type="checkbox"/> Forceps	Education <input type="checkbox"/> Postnatal exercise <input type="checkbox"/> Long term antenatal care <input type="checkbox"/> Recus diastasis checks <input type="checkbox"/> 3 rd /4 th degree tear	Perineum <input type="checkbox"/> Pain <input type="checkbox"/> Swelling <input type="checkbox"/> Itching <input type="checkbox"/> Haemorrhoids	

 Referrer details Print name: _____ Date: _____ Time: _____

DIETITIAN Fax: 60636
 Observations weight: _____ height: _____ BMI: _____
 Weight loss/gain: Maintenance Screening Tool score (0-3): _____ kg over _____ weeks
 Unintentional weight gain during pregnancy (not postpartum): _____
 Perinatal nutrition Newly diagnosed diabetes on insulin (please circle) Pregnancy or breastfeeding IAS
 Enteral nutrition Type 1 Type 2 GDM Hypertension Twins/triplets Vegan
 Major surgery/trauma Diet < 18.5 Special diet: _____
 Poor wound healing 3 or more allergies

Reason for referral: _____
 Additional comments: _____
 Referrer details Print name: _____ Date: _____ Time: _____

Ref: 7304 Authorised by: Christchurch Allied Health Page 1 of 2 April 2018

(Ref.7304)

APPENDIX C 3RD AND 4TH DEGREE TEAR 6 WEEK CHECKLIST AND 6 MONTH RECALL FORMS

Canterbury
District Health Board
Te Poari Hauora o Waitaha
CHRISTCHURCH WOMEN'S HOSPITAL
MATERNITY OUTPATIENTS

SURNAME: _____ NIHI: _____
FIRST NAME: _____ DOB: _____
ADDRESS: _____ POSTCODE: _____
(or enter patient label)

3rd & 4th Degree Perineal Tear – 6 Week Checklist

PATIENT DETAILS

Contact numbers Home: _____ Mobile: _____
Date and time: _____ @ _____ am / pm
LMC: _____ Phone: _____
Date of delivery: _____ Gravida Parity 3rd degree 4th degree

PRESENTING DETAILS

All women should be provided with the following patient information leaflets:
• Ref.7210 Third or fourth degree perineal tear
• Ref.8044 Pelvic floor muscle exercises

Perineum	Pain	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Not healed	<input type="checkbox"/> Yes <input type="checkbox"/> No
Pelvic floor	Unable to contract pelvic floor	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Heaviness	<input type="checkbox"/> Yes <input type="checkbox"/> No
Bowel incontinence	Dragging	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Bulging	<input type="checkbox"/> Yes <input type="checkbox"/> No
Urinary incontinence	Urgency	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Flatus	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Liquid stool	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Firm stool	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is your client concerned about any of these issues?	Leakage	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Urge incontinence	<input type="checkbox"/> Yes <input type="checkbox"/> No

FOLLOWING CHECK

• Is a referral to Physiotherapy Department required for further advice and/or assessment Yes No
• If answer is yes, please fax this form to (03) 364 0442

Please advise your client she will be placed on the GP recall system for 6 months and will be contacted by the medical practice to complete the follow-up process. The woman should be advised if this does not happen for any reason, to make an appointment with their GP or practice nurse at this time.

RECOMMENDATION

3rd degree or 4th degree tear – recommend obstetric assessment next pregnancy to discuss mode of birth.

Name: _____ Date: _____
Signature: _____ Designation: _____

Ref:6742 Authored by: CWM/MOPD Page 1 of 1 January 2020

[\(Ref.6742\)](#)

Canterbury
District Health Board
Te Poari Hauora o Waitaha
CHRISTCHURCH WOMEN'S HOSPITAL
MATERNITY OUTPATIENTS

SURNAME: _____ NIHI: _____
FIRST NAME: _____ DOB: _____
ADDRESS: _____ POSTCODE: _____
(or enter patient label)

3rd and 4th Degree Perineal Tear Checklist – 6 Month Recall

PRESENTING DETAILS

Date and time: _____ @ _____ am / pm Delivery date: _____
 Gravida Parity 3rd degree 4th degree

Urinary incontinence	Leakage?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	If yes – when?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Cough <input type="checkbox"/> Sneeze <input type="checkbox"/> Exercise <input type="checkbox"/> Rushing to toilet	<input type="checkbox"/> Yes <input type="checkbox"/> No
Bowel incontinence	Other symptoms? (urgency/frequency)	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Leakage?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Solid <input type="checkbox"/> Loose <input type="checkbox"/> Flatus	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Passing a stool	<input type="checkbox"/> Yes <input type="checkbox"/> No
Intercourse	Easy	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Pain	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Feels complete	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Stool type: <input type="checkbox"/> Hard/dry <input type="checkbox"/> Soft/formed <input type="checkbox"/> Loose/Diarrhoea	<input type="checkbox"/> Yes <input type="checkbox"/> No
If 'YES' to any of the questions above: Do these symptoms bother you?	Intercourse attempted?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Pain	<input type="checkbox"/> Yes <input type="checkbox"/> No
	If yes – At entrance <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
	– Deep <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
If 'YES' to any of the questions above: Do these symptoms bother you?	Leakage – Urine <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Leakage – Faeces / wind <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

If 'YES' to any of the questions above: Do these symptoms bother you? Yes* No

If 'yes' we recommend further follow up

Either

Appointment with your GP for further discussion and/or

- Refer to Gynaecological outpatients (includes gynaecologist and physiotherapist)
- Refer to private pelvic floor Physiotherapist

or

- Direct referral to Gynaecological Outpatients

Do you have any questions/comments? Accepted Declined

Recommendation to see GP offered? Accepted Declined

Please fax completed form to (03) 364 0442 (place in woman's notes)

Name: _____ Date: _____
Signature: _____ Designation: _____

Ref:6678 Authored by: Cheryl Miskell MSc Dip MPTD February 2020

[\(Ref.6678\)](#)

APPENDIX C PATIENT INFORMATION SHEETS

Third or Fourth Degree Perineal Tear [\(Ref.2402151\)](#).

Pelvic Floor Muscle Exercises [\(Ref.8044\)](#)