Document No: 2466621

TITLE: Third and Fourth Degree Tears - Obstetric Anal Sphincter Injuries (Oasis) Guideline

Contents

1. Description

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.

Rectal buttonhole tears involve a tear of the anorectal mucosa but do not include the anal sphincter complex. If not repaired this may lead to a rectovaginal fistula.

If there is any doubt to the degree it should be classed as a category higher.

2. Scope

All Lakes District Health Board medical and midwifery staff, Lead Maternity Carers (LMC's), and nursing staff working the Birthing Unit or Perinatal Unit.

3. Definitions

DHB	District Health Board
FSE	Fetal Scalp Electrode
GBS	Group B Streptococcus
HDC	Health and Disability Commission
C/S	Caesarean Section
IV	Intravenous
IAP	Intravenous Antibiotic Prophylaxis
LMC	Lead Maternity Carer
IOL	Induction of Labour
RCOG	Royal College of Obstetrics and Gynaecology

4. Risk and Prevention

4.1. RISK FACTORS

While risk factors for third-degree tears have been identified, these risk factors do not accurately predict injury. Taking an overall risk of 1 - 6.3% 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
- Induction of labour
- Epidural analgesia
- Second stage longer than 1 hour
- Shoulder dystocia
- Midline episiotomy
- Instrumental deliveries (forceps higher risk than ventouse)
- Increasing maternal age
- Previous OASIS
- Possibly nutritional status
- Possibly lithotomy position
- Possibly position and use of birthing stool
- Asian ethnicity

4.2. PREVENTION STRATEGIES

4.1.1. Antenatal:

- Perineal massage during the last month of pregnancy for women with whom this will be there first vaginal delivery has been shown to reduce third and fourth degree tears as well as increasing the likelihood of having an intact perineum. The protective effect of perineal massage intrapartum is inconclusive.

  For information on how to perform perineal massage refer to; https://www.rcog.org.uk/en/patients/tears/reducing-risk/ or https://nationalwomenshealth.adhb.govt.nz/assets/Uploads/Perineal-Massage.pdf

4.2.1. Intrapartum:

- Episiotomy with assisted deliveries has been shown to reduce the overall risk of ventouse delivery from 1.89% to 0.57% and with forceps from 6.53% to 1.34%
- Correct episiotomy technique with the incision angle ideally at 60 degrees on a stretched perineum should allow for a suturing angle of about 45 degrees.
- Hands on delivery of the fetal head: slowing delivery of the head with non-dominant hand, protecting the perineum with the dominant hand, communicating with the mother to discourage pushing when the head is crowning and considering an episiotomy.
- Warm compresses to the perineum during the second stage of labour is shown to reduce 3rd and 4th degree tear rates.

4.2.2. Future pregnancies:

- Recurrence more likely to occur with Asian ethnicity, forceps delivery and >4kg birth weight.
- Prophylactic episiotomy in future births is not known to be effective in reducing recurrence.
- Women who have had OASIS and remain symptomatic or who have symptoms resolve between 3-6 months (rather than earlier) should be counselled regarding elective caesarean section. There is a 5-17% risk of having a further 3-4th degree tear and worsening faecal symptoms.

5. Management and Follow Up

5.1. PRINCIPLES OF REPAIR

All women having a vaginal birth should have a systematic examination of the vagina and perineum following birth. Any suspicion of a third or fourth degree tear should be referred to an Obstetric Registrar or Consultant for assessment. In cases where there is any doubt a rectal examination should be performed.

5.1.1. It is recommended that repair is carried out in the operating theatre under regional or general anaesthesia as this provides:
- a) Appropriate assistance
- b) Aseptic conditions
- c) Appropriate instruments
- d) Adequate light
- e) Correct processes around swab counts and;
- f) Effective pain relief for the woman so that the anal sphincter is relaxed enabling repair without tension to the tissue.

5.1.2. All repairs should be carried out either by a:
- a) Consultant Obstetrician
- b) Competency Certified Registrar
- c) Registrar/SHO directly supervised by a Consultant Obstetrician

5.1.3. The repair should be documented on Perineal Repair Form (2466449).

5.1.4. The woman should be informed about:
- a) The nature of the injury
- b) The need for prophylactic antibiotics and laxatives
- c) The importance of follow up at Rotorua/Taupo Gynaecology clinics.
- d) The importance of early reporting of any symptoms of incontinence

5.2. PROCEDURE FOR REPAIR

5.2.1. The anal mucosa should be repaired with interrupted 2/0 or 3/0 Polyglactin suture (e.g. Vicryl).

5.2.2. Sphincter muscles should be repaired with 2/0 or 3/0 PDS or Maxon. Women should be informed that it may take a long time for these sutures to dissolve (more than 6 weeks) and that they may be aware of the knots around the anus.

5.2.3. A full thickness external anal sphincter can be repaired using an overlap or an end to end (approximation) method. There is no evidence that either method is more advantageous. A partial thickness EAS should be repaired using an end to end technique.

5.2.4. If it is recognised that the internal anal sphincter is disrupted, the edges should be grasped and end to end anastomosis performed and repaired separately to the EAS.

5.2.5. The remainder of the repair is carried out as for a second degree tear or episiotomy.

5.2.6. Figure-of eight sutures should be avoided as they cause tissue ischaemia.

5.2.7. A rectal exam should be performed with consent after the repair to ensure that the sutures have not been inadvertently inserted through the anorectal mucosa. If sutures are identified they should be removed.

5.3. POST REPAIR MANAGEMENT AND FOLLOW UP

5.3.1. Antibiotic prophylaxis should be given:

Intravenous (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

5.3.2. Analgesia should be prescribed:
- Rectal Diclofenac 100 mg and Paracetamol 1.5 g STAT at completion of repair
- Oral non-steroidal anti-inflammatory and Paracetamol as required
- Avoid opiate analgesia as this may cause constipation

5.3.3. A stool softener should be prescribed – Lactulose 10 mls BD for 10 days. Kiwicrush or Sodium Docusate tablets are an acceptable alternative. Avoid stool bulking agents

5.3.4. 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.

5.3.5. Written information leaflets should be given while the woman is an inpatient with advice on avoiding constipation or diarrhoea and after care.

After delivery referral to physiotherapy should be made. The woman should remain an inpatient for 24 hours. If not reviewed by the physiotherapist prior to discharge an outpatient physiotherapy referral should be made.

5.3.6. Post delivery the obstetrician who performed the repair should ensure that the woman has a full understanding of the implications of the tear and the plans for subsequent follow-up at the Rotorua/Taupo Hospitals Gynaecology outpatient clinic in 6-12 weeks.

5.3.7. The woman should be provided with a 'Third or Fourth Degree Perineal Tear' patient information leaflet.

5.3.8. The discharge letter to the LMC and GP should contain information regarding the grade of tear and repair.

5.3.9. The woman should be assessed by her LMC at the usual 6 week check to ensure perineum healing and pain resolved.

6. Third and Fourth Degree Tear 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.
- Proportion of women with OASIS receiving post op advice as per protocol.
- Proportion of women with previous OASIS who opt for ELSCS vs vaginal birth.

7. Associated Documents

- Information Leaflet 'Third & Fourth Degree Perineal Tear'
- Information Leaflet 'Physiotherapy following Third & Fourth Degree Perineal Tear'
- Perineal Repair & Instrumental Delivery Form (2466449)
- RCOG. Reducing your Risk of Perineal Tears https://www.rcog.org.uk/en/patients/tears/reducing-risk/
- ADHB. Perineal Massage Leaflet https://nationalwomenshealth.adhb.govt.nz/assets/Uploads/Perineal-Massage.pdf

8. References

- CDHB Third and Fourth Degree Tears Maternity Guideline GLM0036, 2020
- RCOG (2007) Management of third and fourth degree perineal tears following vaginal delivery. RCOG Green Top Guideline No. 29. RCOG, London
- Sultan AH et al (1999) Primary repair of obstetric sphincter rupture using overlap technique. British Journal of Obstetrics Gynaecology, 106 (4) :318-23
- Mahony R et al (2004) Randomised, 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.
- The Rosie Hospital, Cambridge University Hospitals NHS Foundation Trust, Guideline: Repair of Third and Fourth Degree Tears; July 2008

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Ratified by: **Maternity Clinical Quality Improvement (CQI) Meeting**

Sex

You may resume sex once you have stopped bleeding and your wound has healed. You may need to use lubricant to aid comfort.

Future planning

Most women have a good recovery, in the first few weeks however some women experience:

- Pain or discomfort around the perineum
- Stinging when passing urine
- Apprehension about intercourse
- Rushing to pass a bowel motion
- Decreased awareness of passing wind

If you are experiencing this, please talk to your midwife or GP. Control over your bowels should improve with regular pelvic floor exercises and physiotherapy.

You should have a discussion about how to deliver in your next pregnancy with an obstetrician either at your 12 week follow up appointment or during your next pregnancy.

When to seek help

Please talk to your GP or midwife if you are concerned about:

- Worsening pain or discomfort around the perineum,
- Fevers and generally feeling unwell,
- Discharge, swelling and/or you feel as though the wound is opening up,
- Urinary incontinence
- Inability to control your bowels,
- Constipation or not opening your bowels by three days postnatal,
- Stool coming through your vagina rather than anus (rare).

LAKES DISTRICT HEALTH BOARD

Woman, Child and Family

Third & Fourth Degree Perineal Tear

Patient Information

EDMS 2466621, Review Date: March 2024

What is a perineal tear?

A perineal tear affects the area between your vagina and back passage (anus). There are four types of tears, with third and fourth degree tears being the most significant.

Third Degree Tear:

Involves the vaginal wall, perineum and one or both of your anal sphincters. These sphincters allow you to consciously or unconsciously control both wind and bowel motions.

Fourth Degree Tear:

Involves the same tissues as the third degree tear but also extends to the tissues that line the inside of the anus.

These tears occur in approximately 3% of vaginal deliveries. There are some situations which increase the risk of a tear occurring such as, your first vaginal delivery; having a baby >4kg; more than 1hr pushing; instrumental delivery; shoulder dystocia (when baby's head is delivered but the shoulders get stuck); previous third of fourth degree tear and; an occipito-posterior position which is where your baby is facing towards your tummy rather than your back.

Your Treatment

Your treatment will consist of:

- Antibiotics to reduce infection
- Laxatives to avoid constipation and straining
- Pain relief (Paracetamol and Ibuprofen or Diclofinac)
- Physiotherapy (You should receive another handout for this).

During recovery

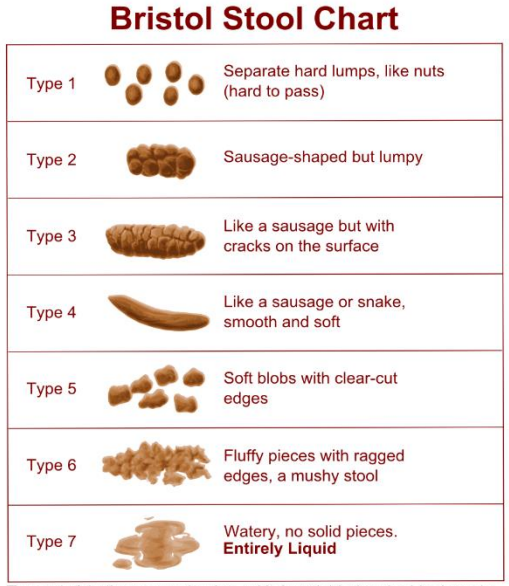
In the first few days you should try to rest, this means lying down. This will help with swelling and discomfort. When seated you may want to try a towel rolled up placed under your thighs and/or buttocks to relive pressure off your perineum. You may use ice packs every 2 to 4 hours for 10mins to help with the swelling.

Hygiene

Shower as usual and keep the area clean with a gentle warm water wash and pat dry with a clean towel. After passing urine or a bowel motion also clean with warm water and gently pat dry. Change sanitary pads regularly and maintain good hand hygiene to help prevent infection.

Bowels

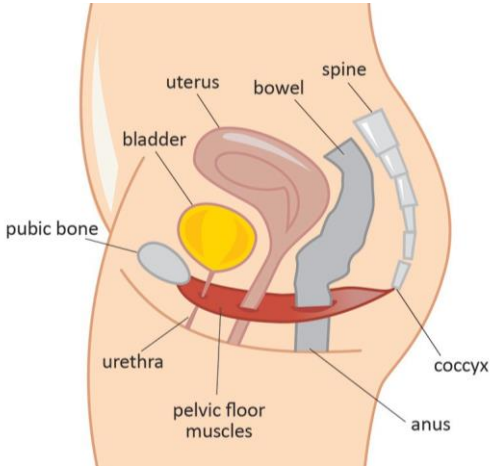
We encourage regular use of laxatives to keep your stools soft so you do not strain. Your stool should look similar to type 3 and 4 on the Bristol Stool Chart (see below). The use of a foot stool (to help bring your knees in line or above the level of your hip) is encouraged to help make passing a bowel motion as easy as possible. If you feel the need, you can fold toilet paper and apply pressure to your perineal area while passing a bowel motion for comfort (you can also do this when coughing or sneezing). Your diet should consist of foods high in fibre (vegetables, wholegrain breads and cereals) and 2-3L of water a day.



Types 1–2 indicate constipation, with 3 and 4 being the ideal stools (especially the latter), as they are easy to defecate while not containing any excess liquid, and 5, 6 and 7 tending towards diarrhoea.

Back care

- It is recommended that you do not lift anything heavier than your baby for the first six weeks
- When lifting heavy objects, you should engage your pelvic floor.
- If possible have working surfaces/changing tables at waist level to avoid unnecessary lifting.
- Roll onto your side to get up from bed, pushing through your arms. This will reduce the strain on your abdominal muscles.
- Sit comfortably when feeding baby. Use pillows to support your arms and back to avoid unnecessary strain on your body. Bring baby to you, not you to baby!



General pelvic floor cares

- Do not strain to open your bowels or pass urine.
- Do not wait too long once you feel the urge to open your bowels to use the bathroom.
- Sit with your feet flat, resting on a stool so your knees are higher than your hips. Lean forward resting your arms on your knees.

LAKES DISTRICT HEALTH BOARD

Woman, Child and Family

Physiotherapy following

Third and Fourth Degree Perineal Tear

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What is your pelvic floor?

Your pelvic floor is a collection of muscles which support the pelvic organs and help with the control of your bowel and bladder habits. These muscles are weakened during your pregnancy from the hormones and the baby and are also torn along with your anal sphincters in a third and fourth degree tear.

Starting physiotherapy

You can start pelvic floor exercises as soon as your catheter is removed and you are able to pass urine.

Sometimes despite trying you may not be able to feel your muscles engage, if this occurs, try again in another 24 hours.

During the first week your pelvic floor exercises should be performed as pain allows and remember to take regular pain relief and laxatives.

Pelvic floor exercises

To begin with, it is easiest to work these muscles when lying down.

To work your pelvic floor muscles, gently lift and squeeze your muscles as if you are trying to stop yourself from going to the toilet or passing wind. Hold for 3-5seconds, relax and repeat 5 times. Aim to complete these exercises 3 x per day.

Progression—increase the time you hold the muscles on and/or increase the number of times your repeat the movement.

Once you are able to work your pelvic floor muscles, work on switching them on and off quickly. Turn your muscles on and off up to 10 times as quickly as possible.

Your physiotherapist will review and progress these exercises with you at your six week follow up.

General Exercise

General physical activity is important for your recovery.

You can begin walking as soon as pain and discomfort allows.

It is recommended to avoid running and high intensity exercise for three months.

Your physiotherapist can develop an individualised plan to help you get back to these.

Deep abdominal exercises

You should aim to exercise your lower abdominal muscles without doing crunches or sit ups. Start by laying on your back, gently exhale and pull your lower tummy and bellybutton back towards your spine while keeping the top half of your tummy soft. Hold this for 3-5 seconds while continuing to breathe. Work up to 10 repetitions three times a day.

Your physiotherapist will assist with progressing these exercises at your six week follow up.

Functional bracing

Before coughing, sneezing, laughing or lifting (these put increased stress on your pelvic floor) engage your pelvic floor muscles, this will help with leakage and the increase in pressure.