

OASIS Workshop

King Edward Memorial Hospital
04.04.2025

Dr Andrew Saunders, with thanks to Sebastian Dr. Leathersich
King Edward Memorial Hospital for Women

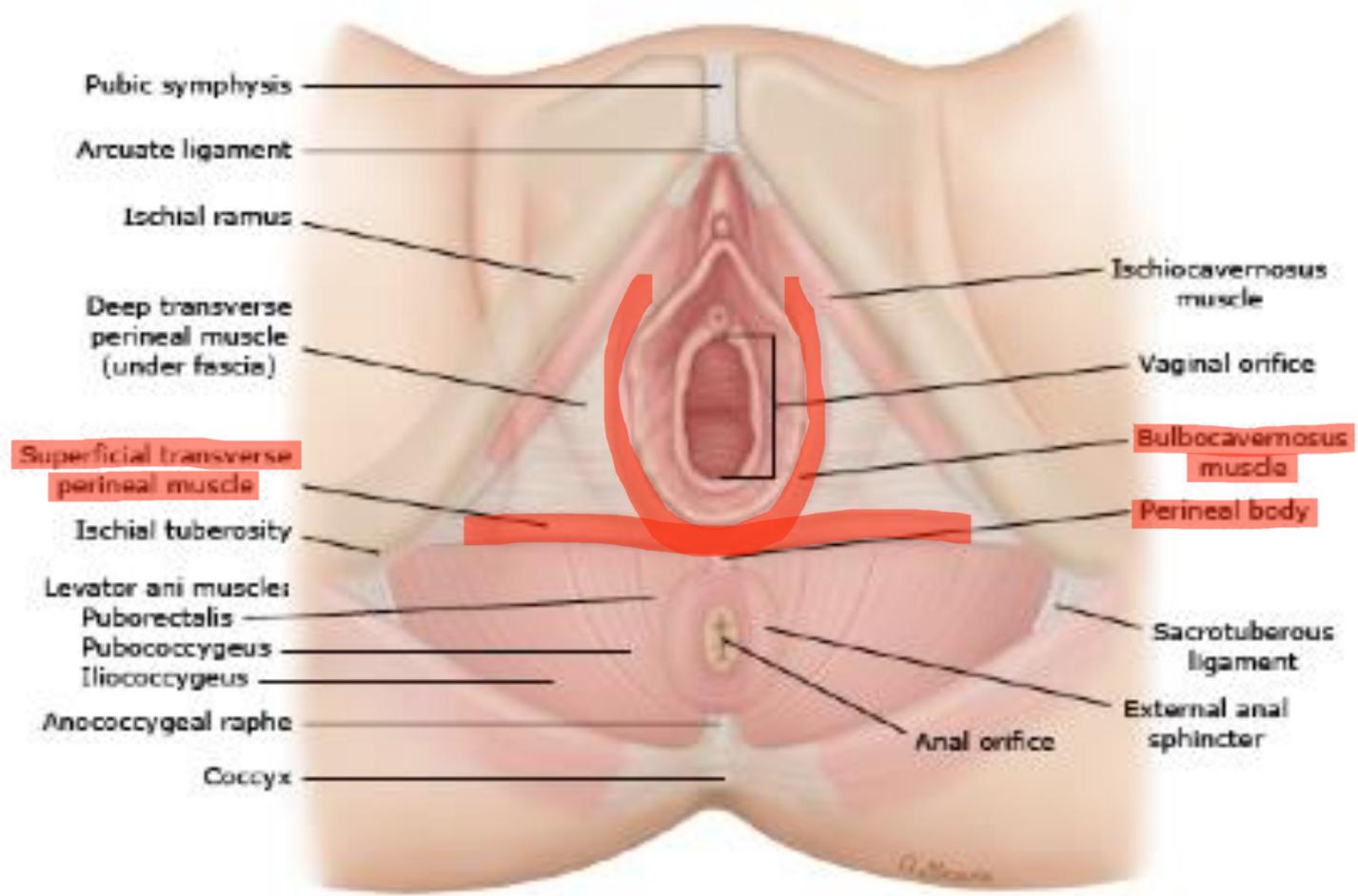
Outline

- Anatomy
- Prevention
- Repair
- Prognosis

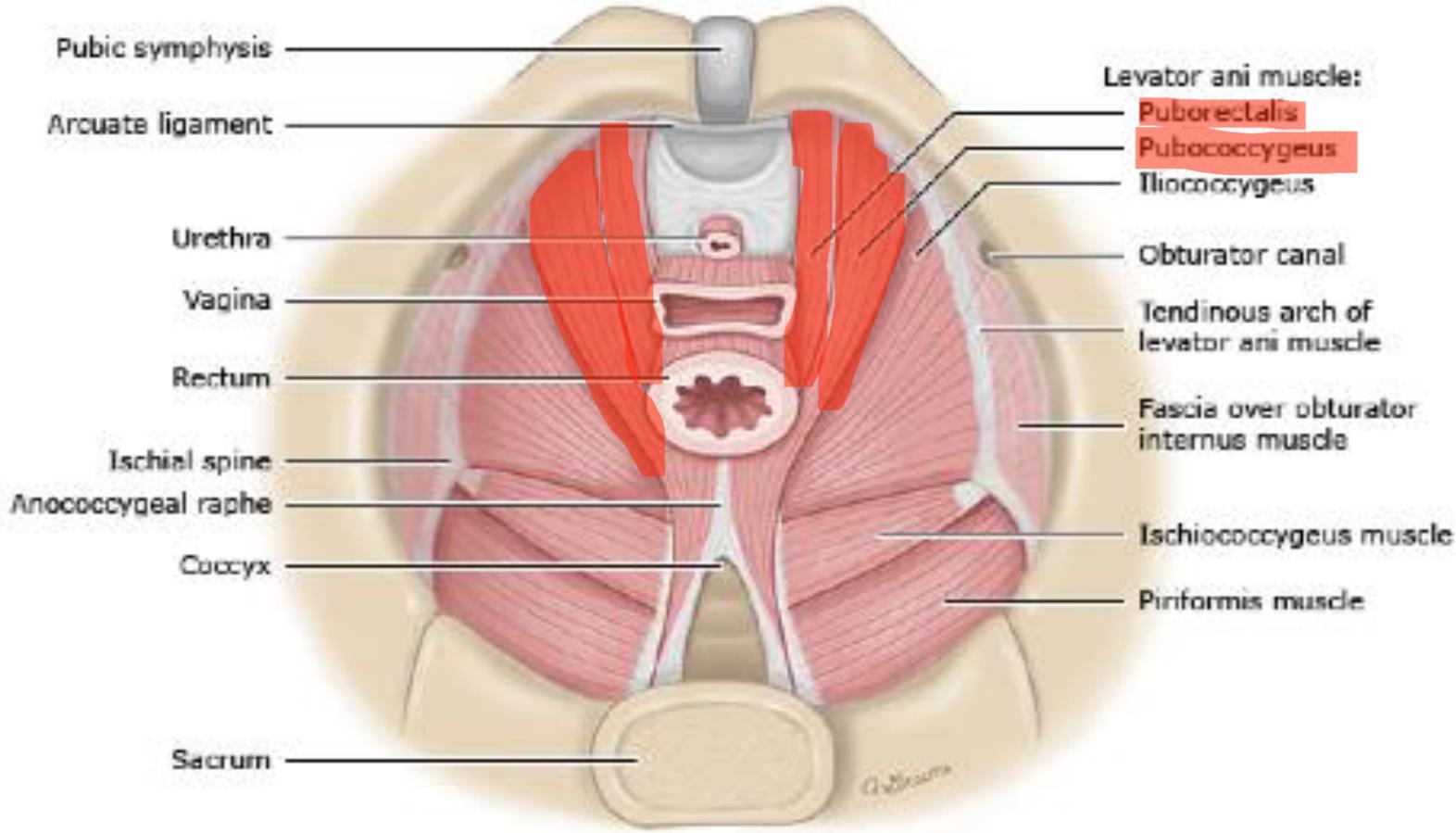
Background

- ~2% of all vaginal births at KEMH
- Australia
 - 2.5% of all vaginal births
 - 7.2% of instrumental deliveries
- Cochrane: 0.5 – 3%
- *36% of vaginal deliveries if diagnosed retrospectively using endoanal USS*
- Serious long term consequences
 - Wound breakdown (10%), fistulation, incontinence, pain, infection, dyspareunia, depression, reduced QOL

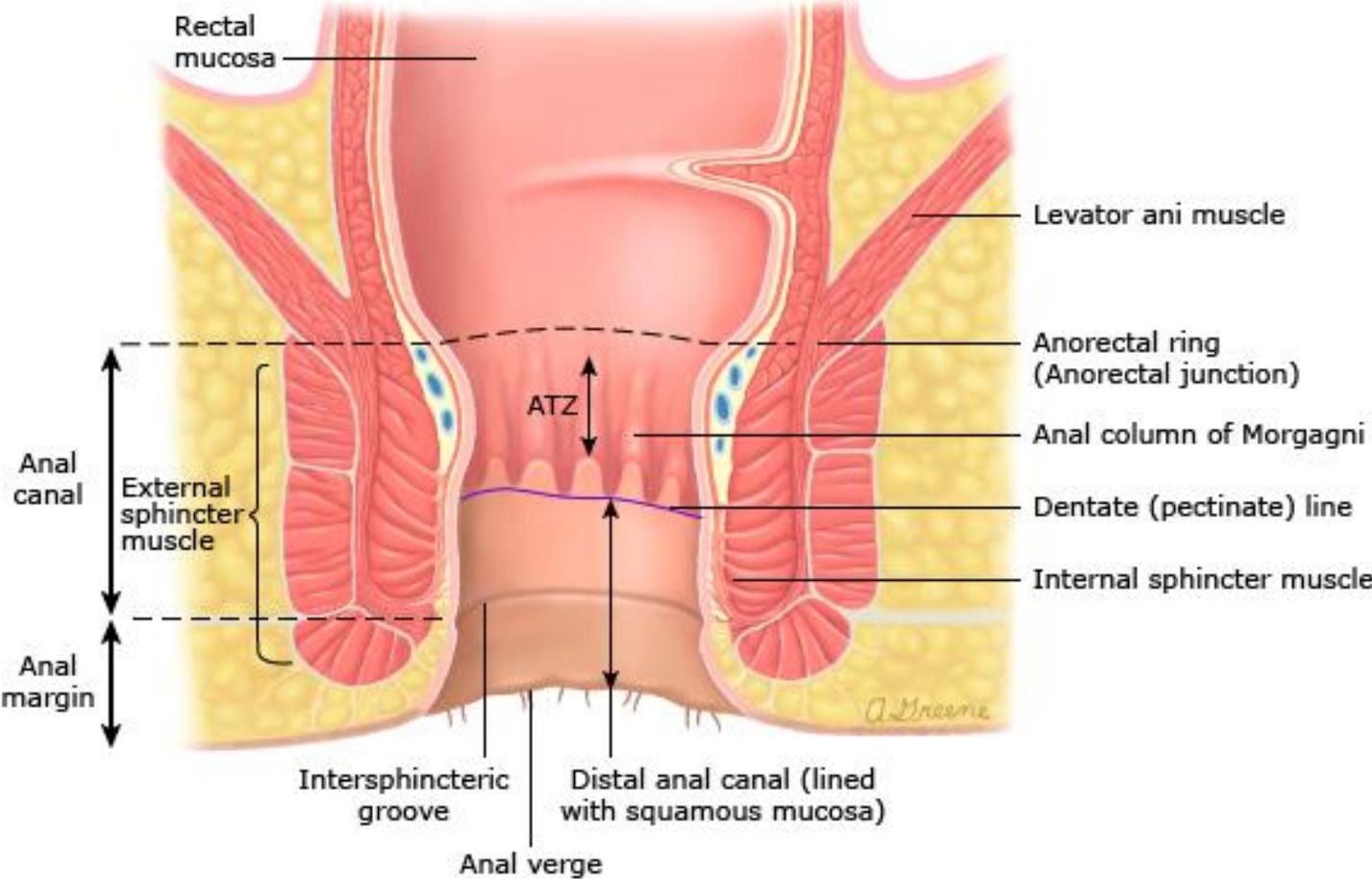
Anatomy

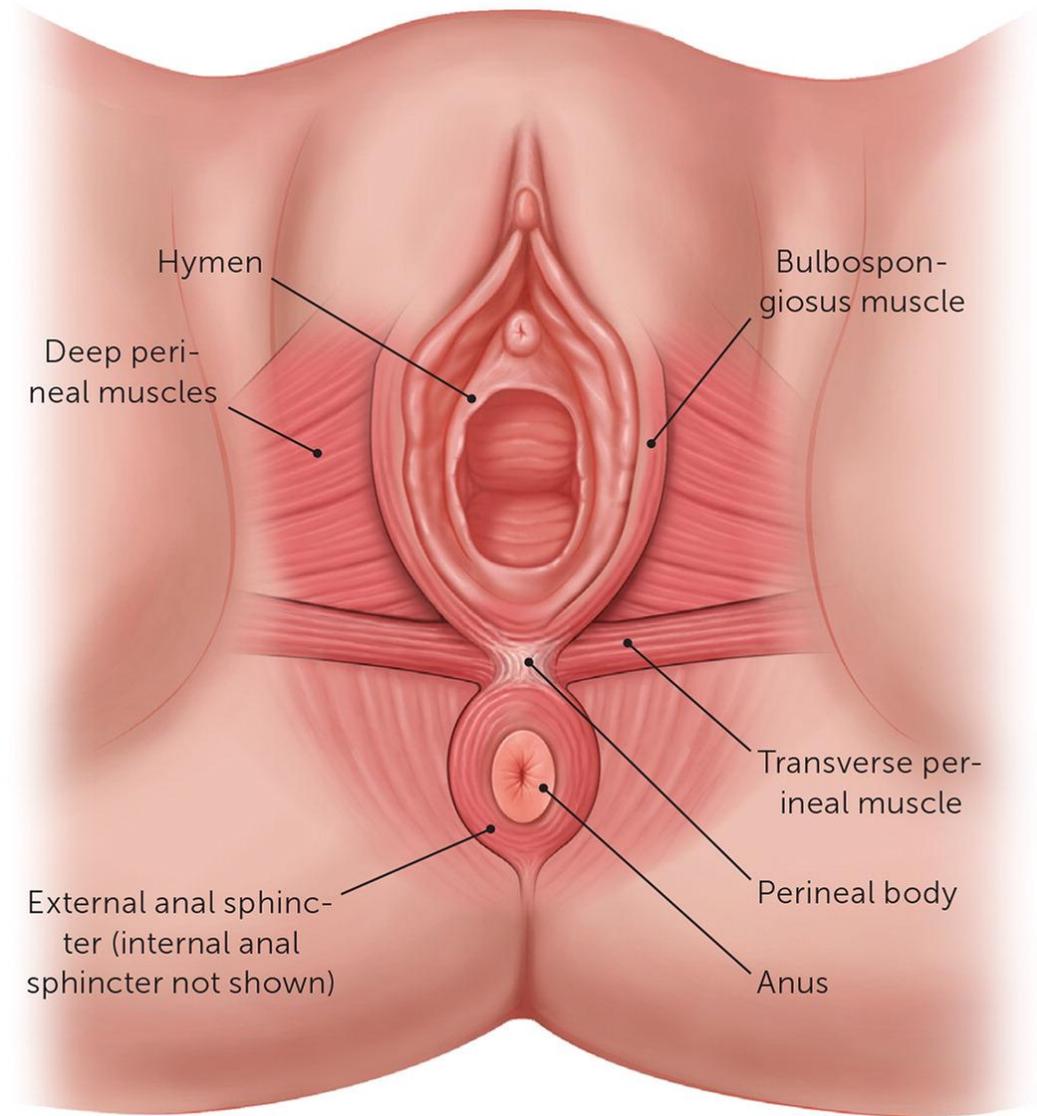
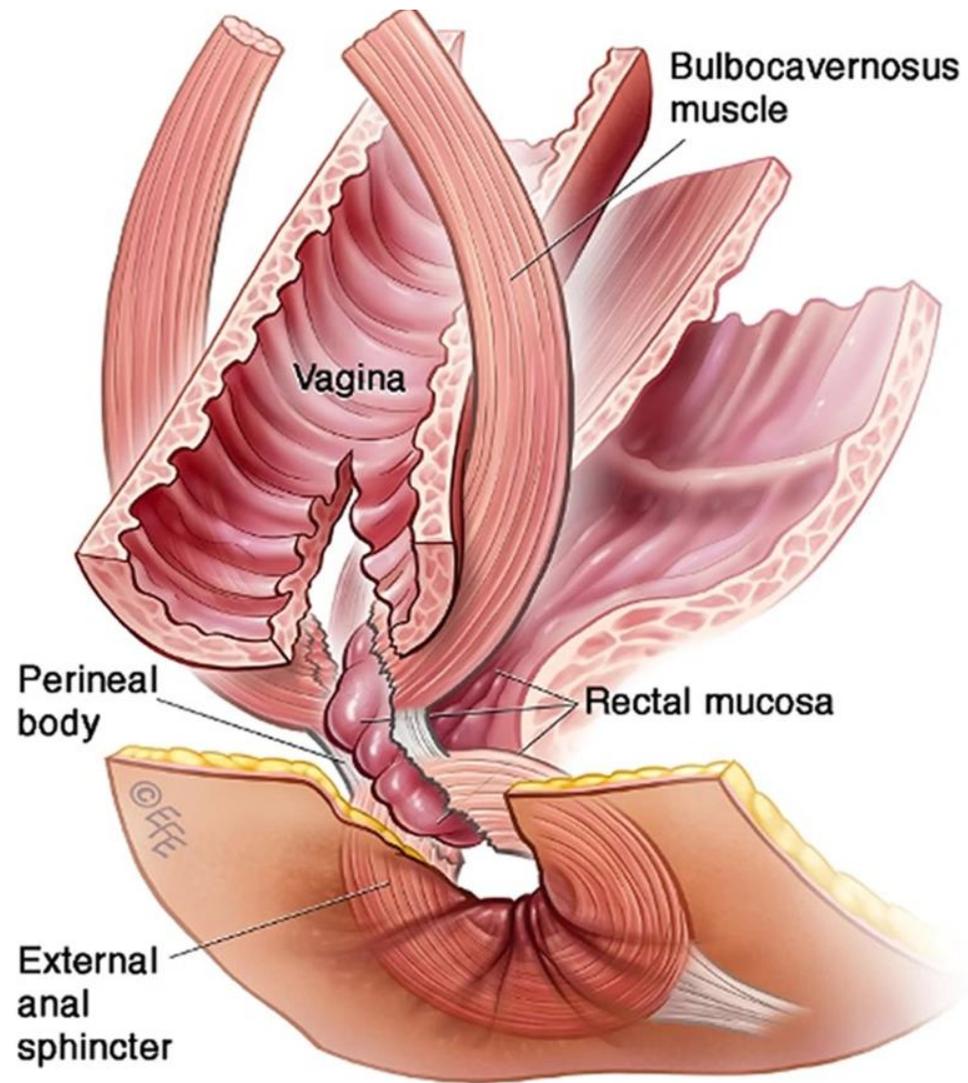


Anatomy

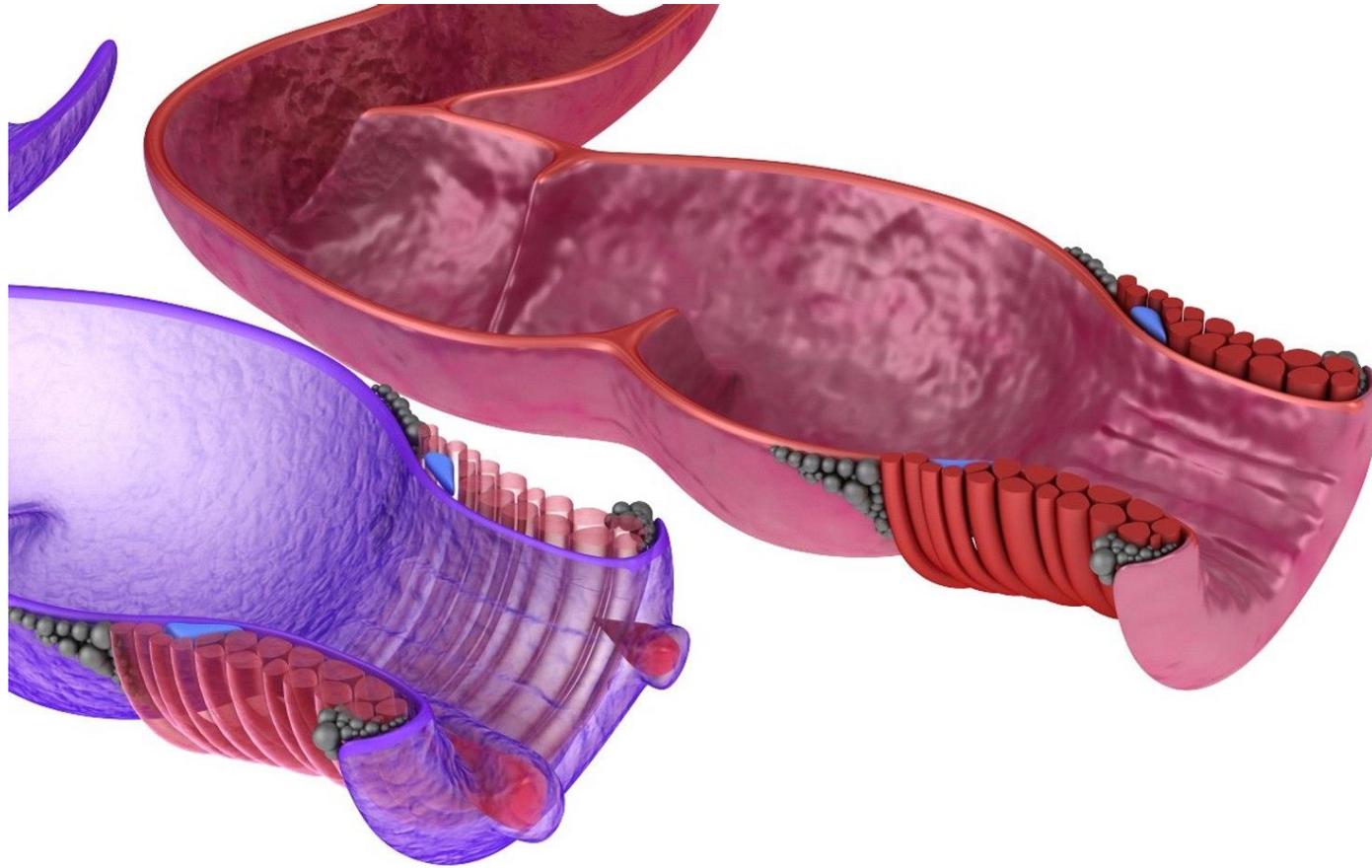


Anatomy





3D representation



Risk factors

Pre-labour	Intrapartum
Fetal macrosomia	Vaginal delivery
Increased maternal age	Operative delivery (OR 5.10)
Nulliparity	Median episiotomy (OR 3.82)
VBAC	Prolonged second stage
Ethnicity	Persistent OP position (OR 3.09)
GA \geq 41/40	Labour augmentation (OR 1.95)
Previous OASI	Shoulder dystocia
IOL (OR 1.08)	Epidural analgesia
	Precipitate labour
	Position

OASIS

**Macrosomy
(>4kg)**

Nulliparity

**Asian
ethnicity**

**Advanced
maternal age**

**Prolonged 2nd stage
of labour (>1h)**

**Shoulder
dystocia**

**Occipitus
posterior
position**

**Instrumental
delivery**

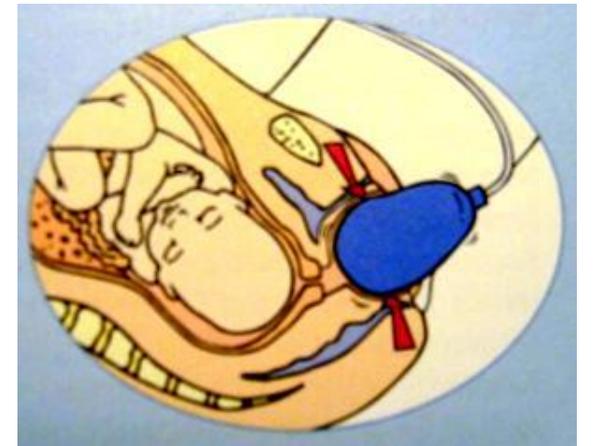
**Midline
episiotomy**

**Induction
of labour**

**Epidural
analgesia**

Prevention - Antenatal

- Perineal massage
 - No evidence of reduced risk of perineal trauma or 3/4th degree tears
 - Reduces risk of episiotomy (RR 0.84)
 - Reduces risk of post-partum perineal pain (RR 0.45)
- Epi-No
 - No reduction in episiotomy rates
 - No reduction in perineal tears (RR 1.31 (0.72-2.37))
- Pelvic floor muscle training
 - No reduction in episiotomy or perineal tears (OR 0.96 (0.66-1.40))



Prevention - Intrapartum

- Position

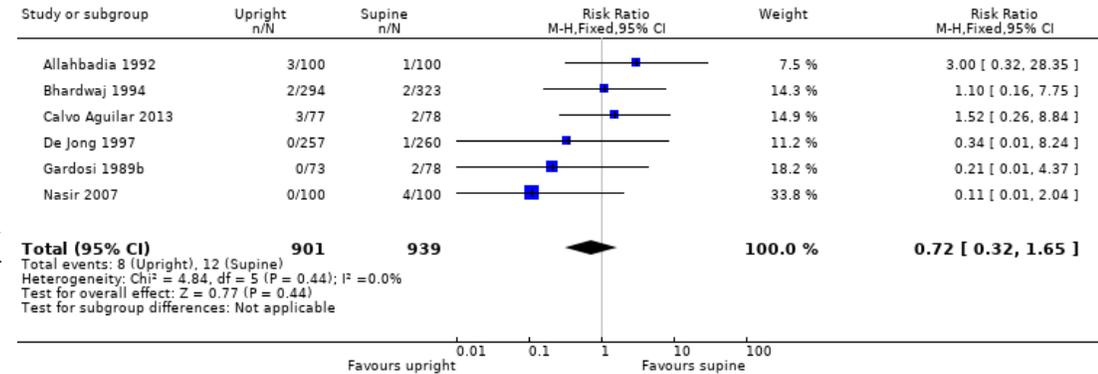
- Kneeling/all-fours probably reduces risk

- Pushing

- No clear difference in directed vs. spontaneous
- No clear difference with immediate or delayed with epidural

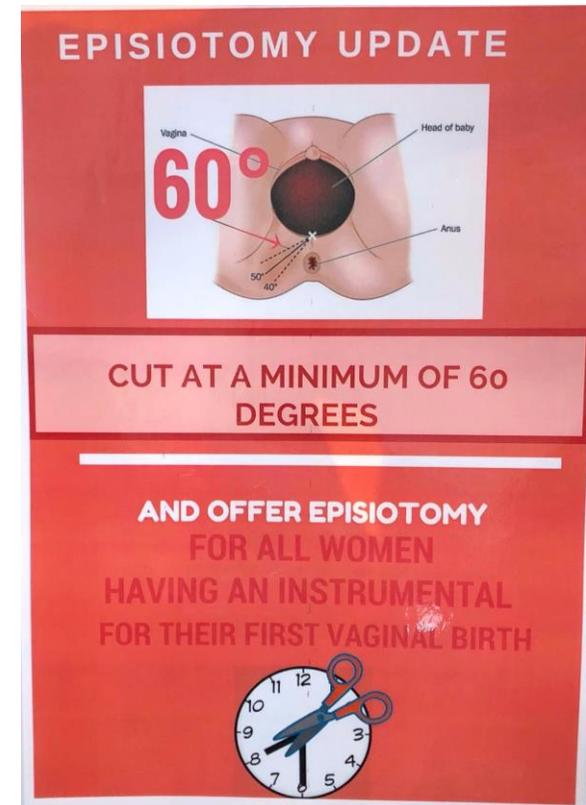
- Hands-on vs hands-off

- Inconsistent results regarding reduction in 3/4th degree tears



Prevention - Intrapartum

- Warm compresses
 - Reduce the risk of 3/4th degree tears (RR 0.46, 0.27-0.79)
- Episiotomy
 - Routine episiotomy does not prevent 3/4th degree tears
 - Selective episiotomy reduces 3/4th degree tears (RR 0.70, 0.52-0.94)
 - Median episiotomy increases risk (RR 4.58 (3.74 – 5.62))
 - 50% relative risk reduction with every 6degree increase in angle from midline
 - KEMH: *offer* episiotomy to all patients having IAD for first vaginal birth

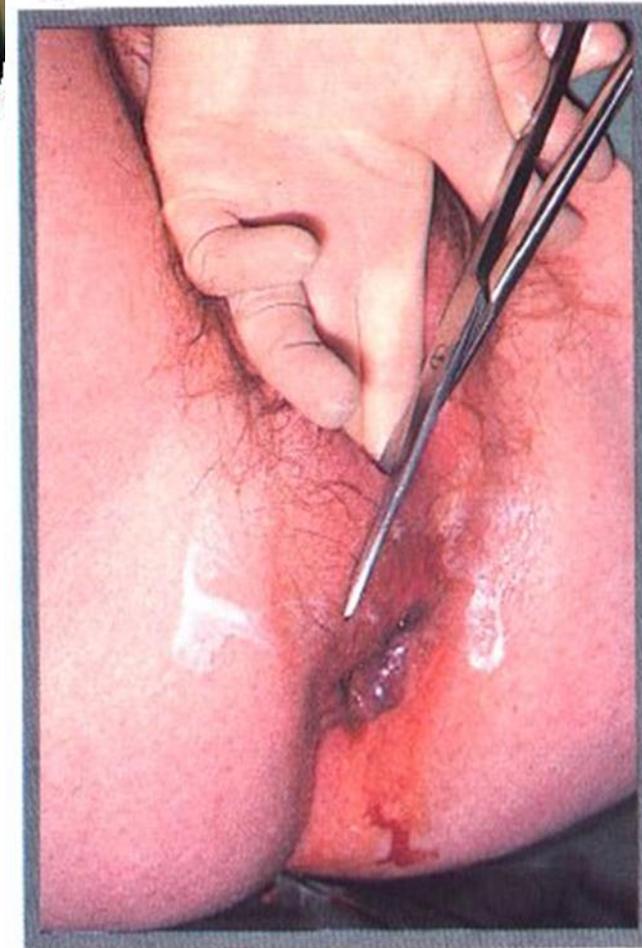


Prevention - Intrapartum

- Episiotomy

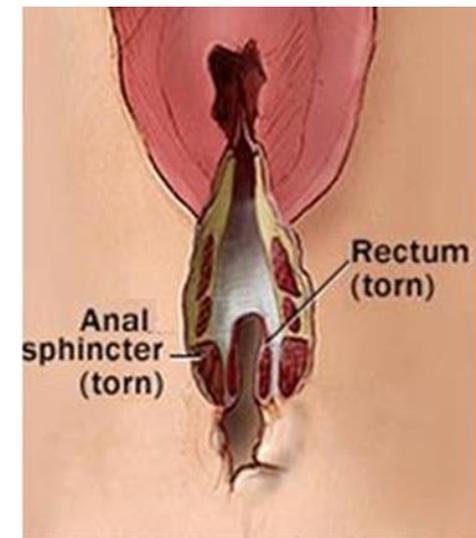
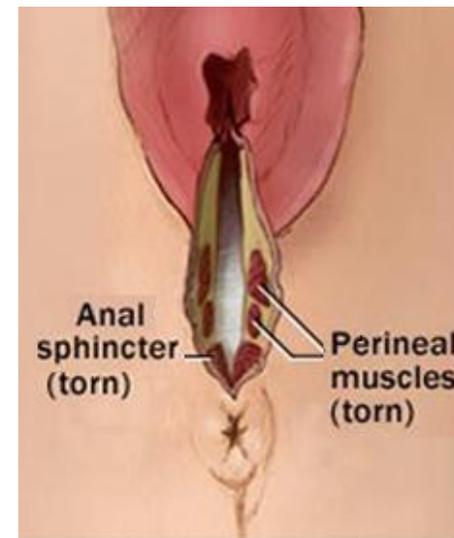
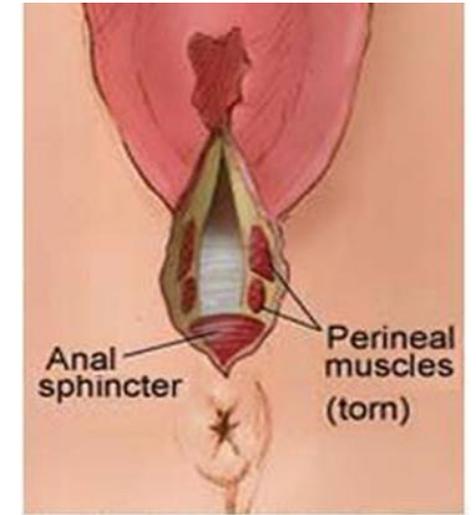
- Indications

- Fetal
 - Instrumental?
 - Reducing maternal effort?
 - History of bladder/fistula repair
 - Prevention of anticipated severe perineal trauma



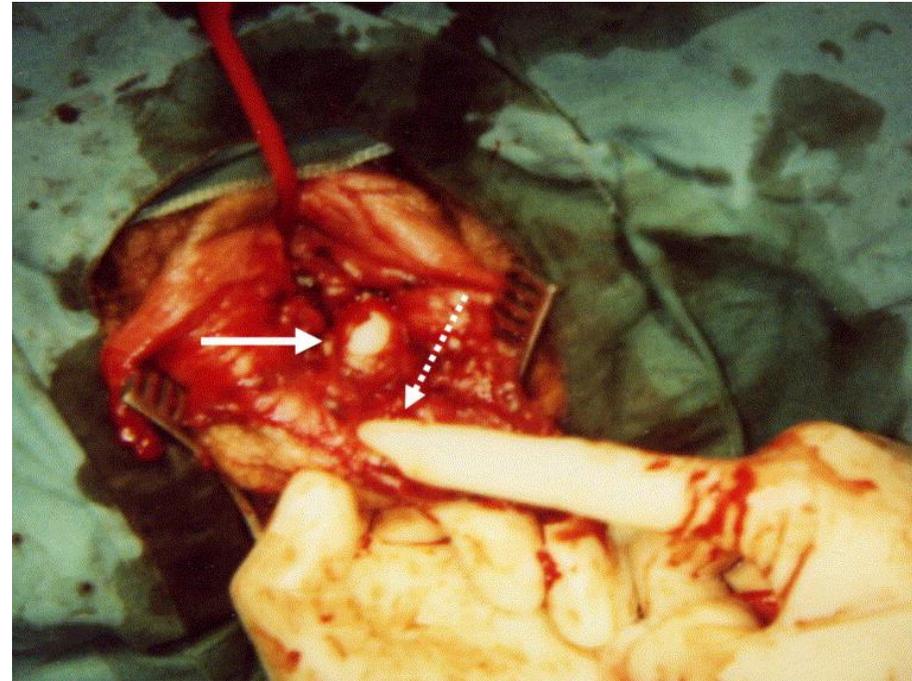
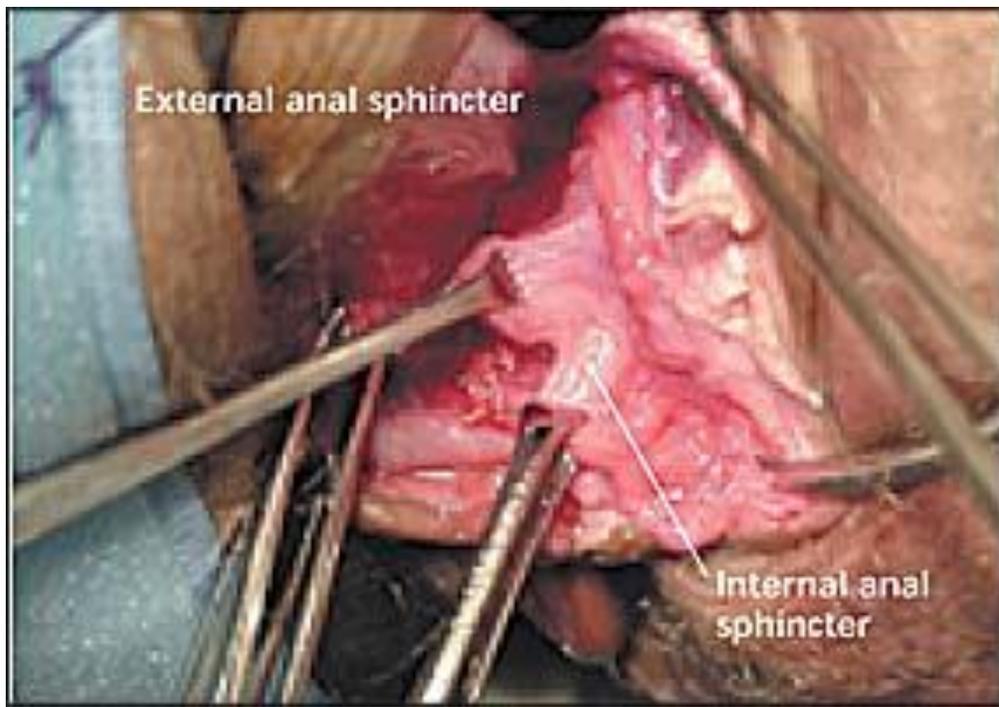
Identification & Classification

RCOG	
1	Injury to perineal skin
2	Injury to perineum involving perineal muscles
3	Injury to perineum involving anal sphincter complex: 3a: <50% of EAS thickness disrupted 3b: ≥50% of EAS thickness disrupted 3c: EAS & IAS disrupted
4	Injury to perineum involving anal sphincter complex and anal epithelium









Management

- Location & timing
- Positioning, analgesia & antibiotics
- Suture material
- Surgical technique
- Post-operative care

Management

- Location & timing
 - Operating theatre with adequate exposure and lighting
 - Up to 12 hour delay does not appear to worsen outcomes (RCT!)

Management

- Positioning, analgesia & antibiotics
 - Exposure is important – lithotomy is routine
 - Analgesia:
 - Pain relief
 - Relax EAS
 - Antibiotics: broad spectrum at time of repair
 - Cefazolin
 - Metronidazole
- IDC

Management

- Suture material

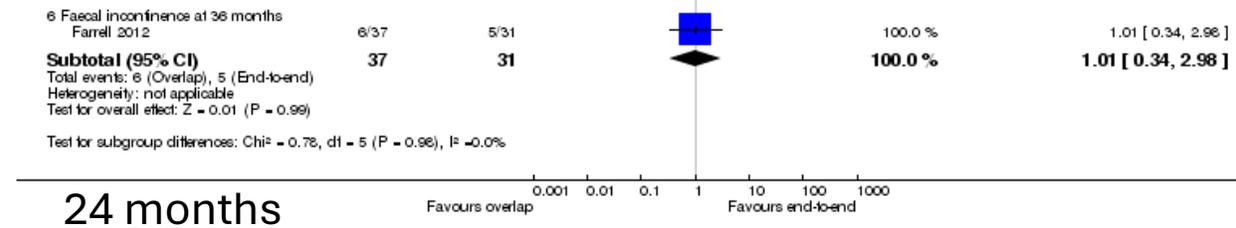
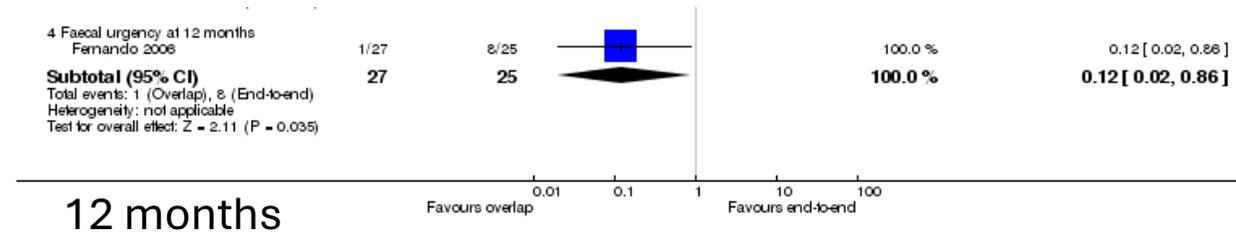
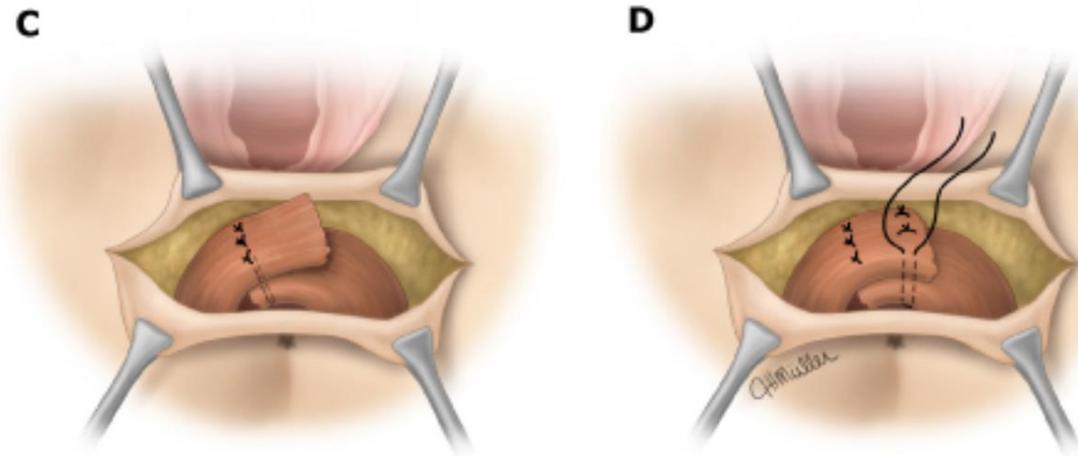
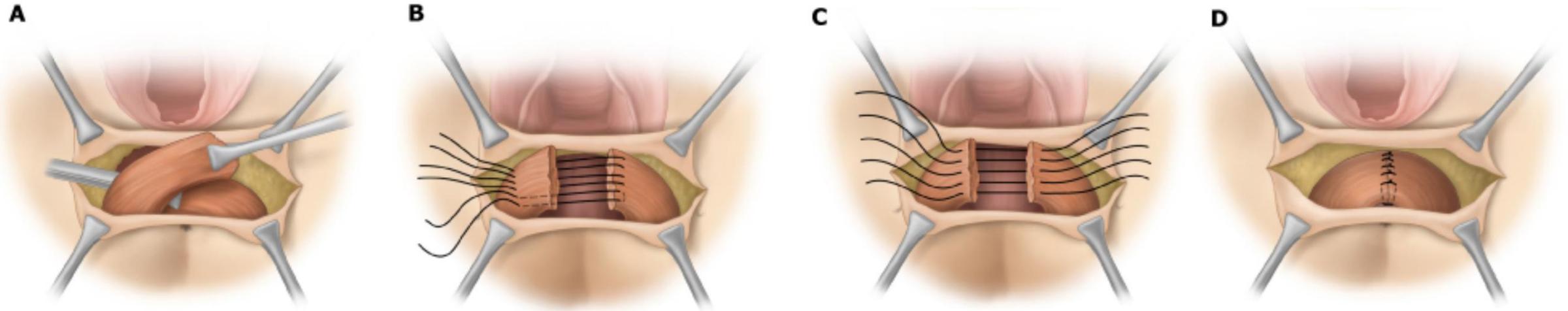


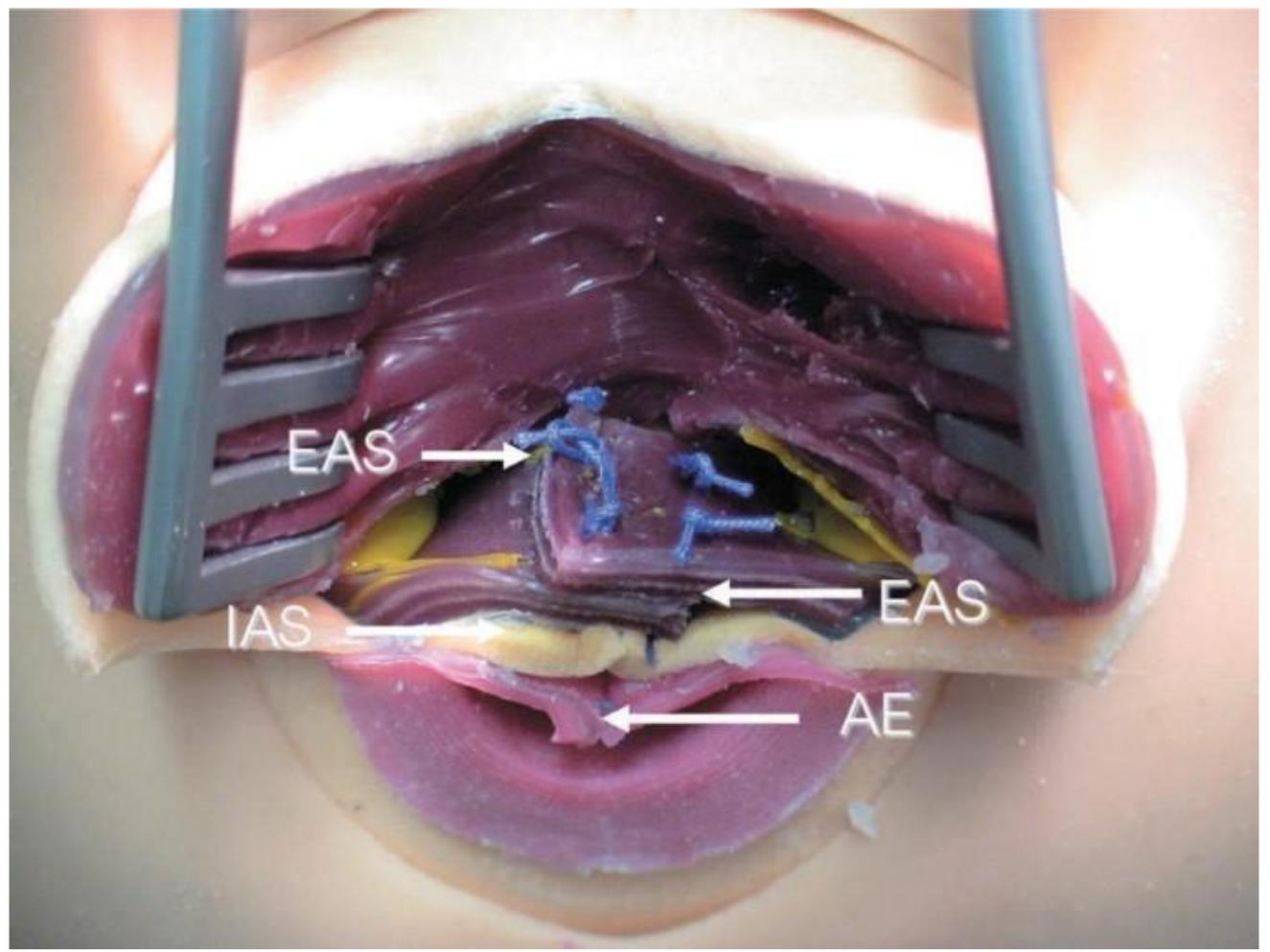
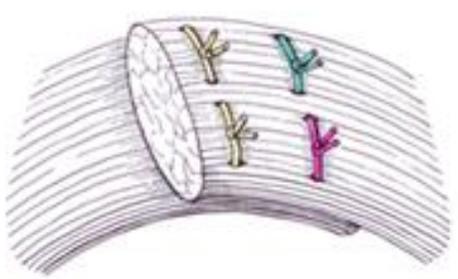
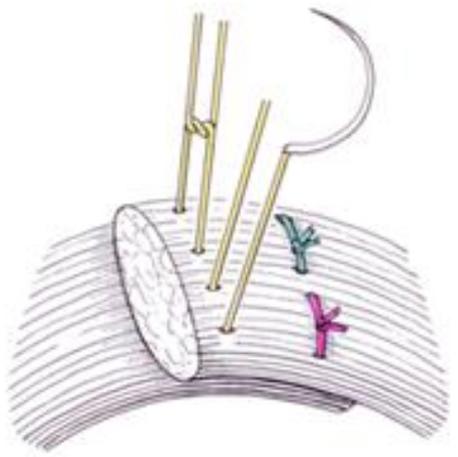
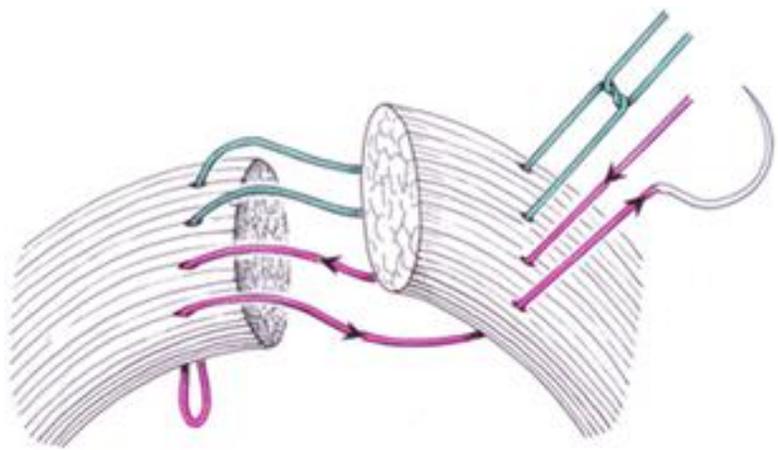
Management

- Suture material

- | | | |
|--------------------|----------------------------|---------------------------------------|
| • Anorectal mucosa | 3-0 polyglactin | continuous or interrupted |
| • IAS | 2-0 polyglactin
3-0 PDS | interrupted end-to-end |
| • EAS | 2-0 polyglactin
3-0 PDS | interrupted end-to-end or overlapping |

Management – Surgical Technique

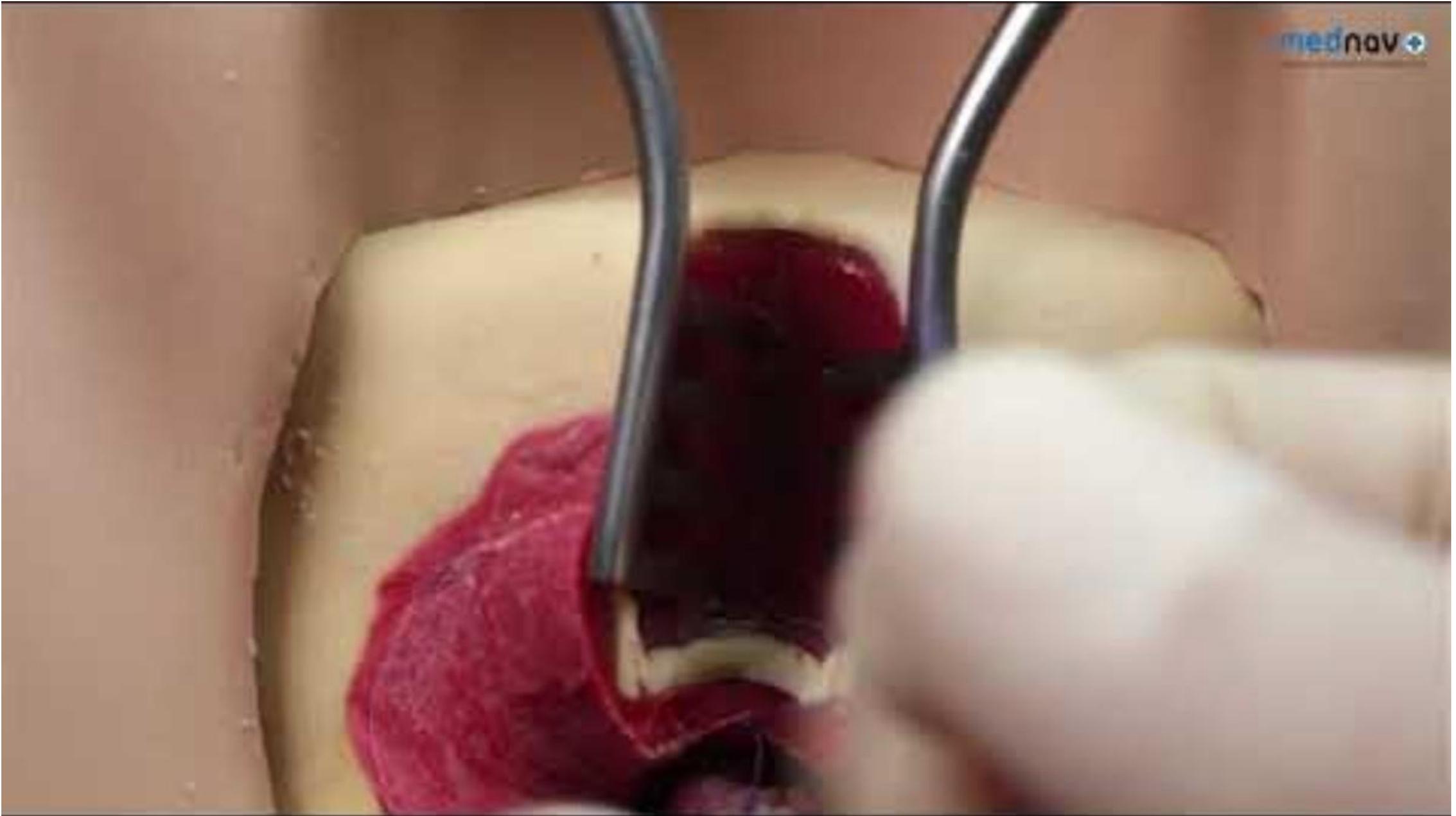


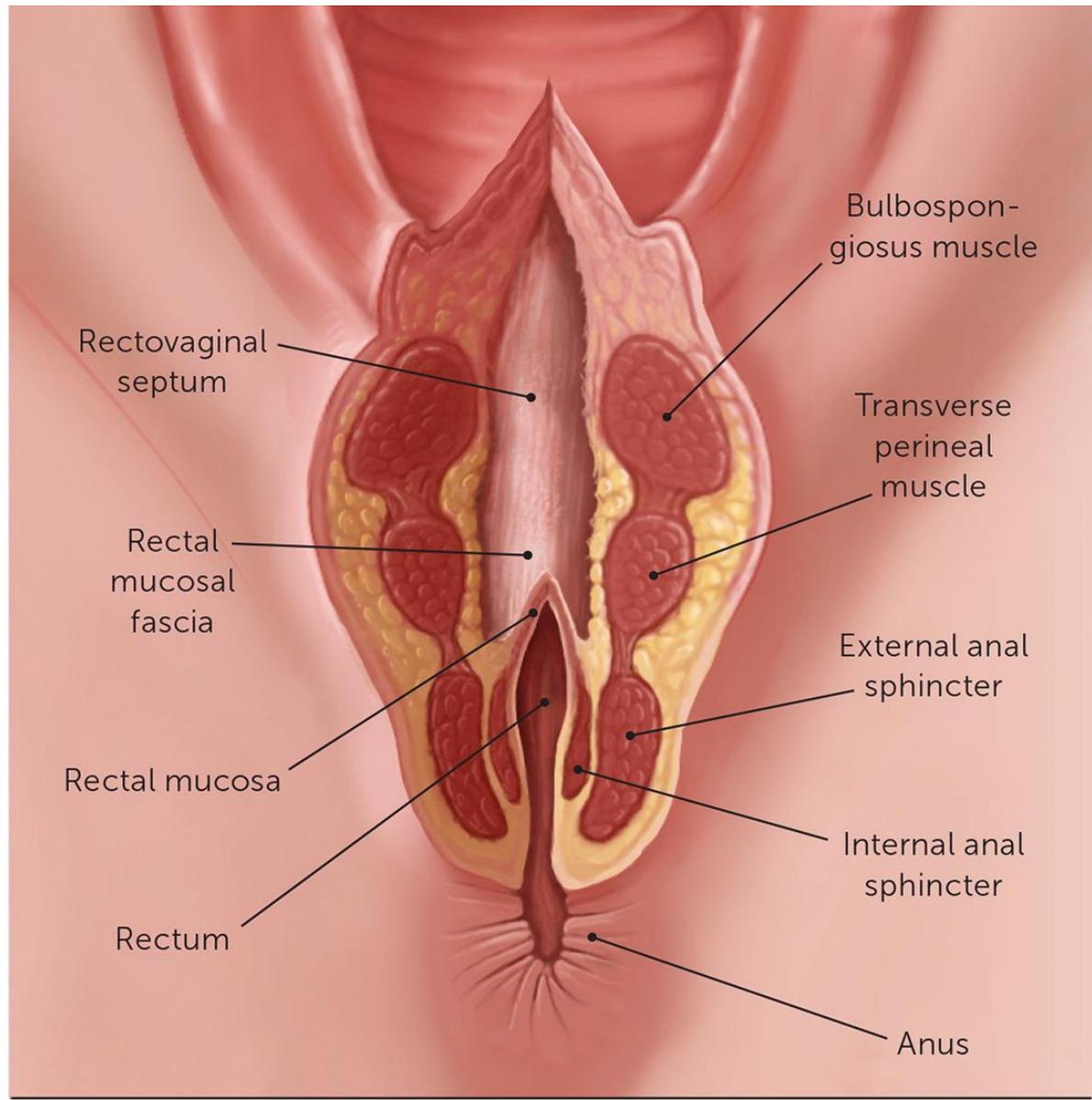


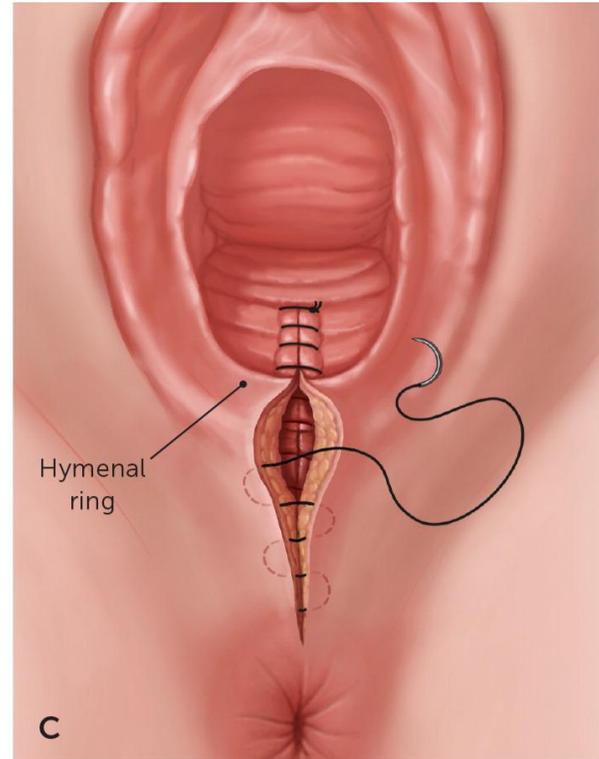
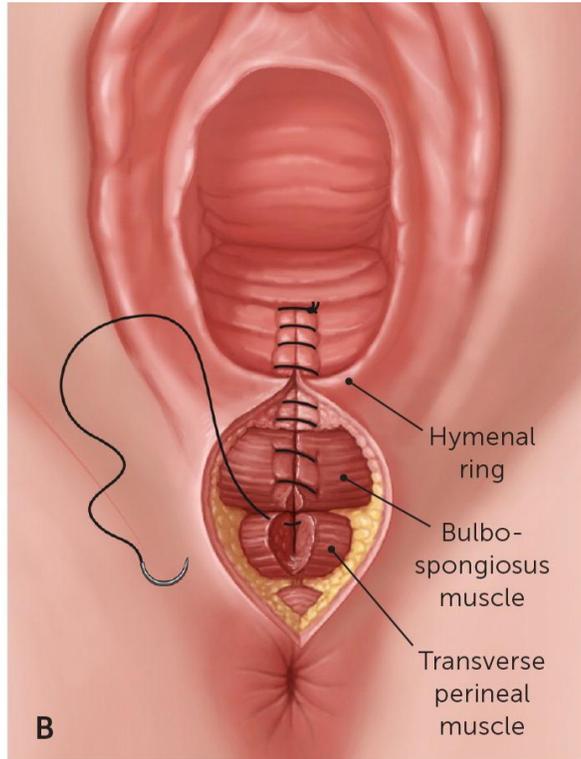
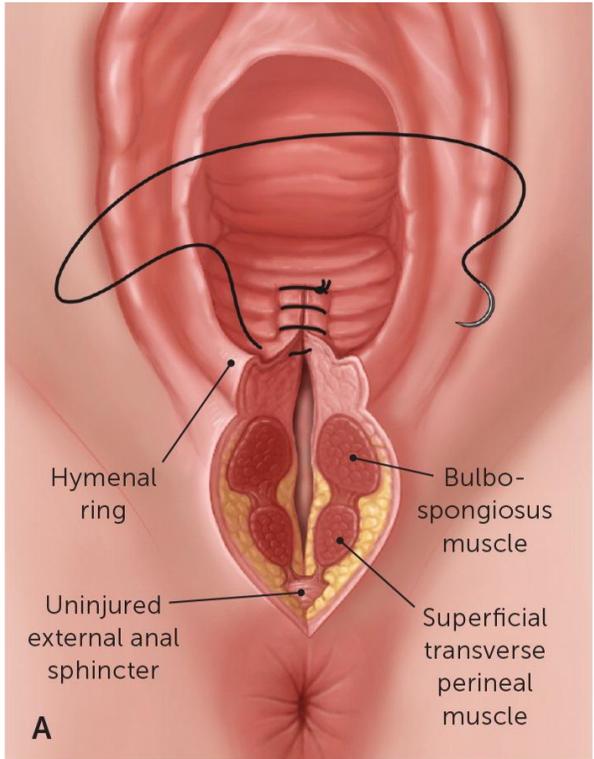
3C IAS and EAS Repair with Overlapping Technique



4th Degree Repair







Caring for your Perineum

Following the birth of your baby



Management

- Post-operative care
 - Analgesia
 - Antibiotics – broad-spectrum
 - IDC – 12 hours
 - Cold compresses/ice
 - Hygiene, perineal showers/bathing
 - Prevent constipation
 - Physical therapy and pelvic floor training – 6-12 weeks
 - Follow-up 6-12 weeks postpartum

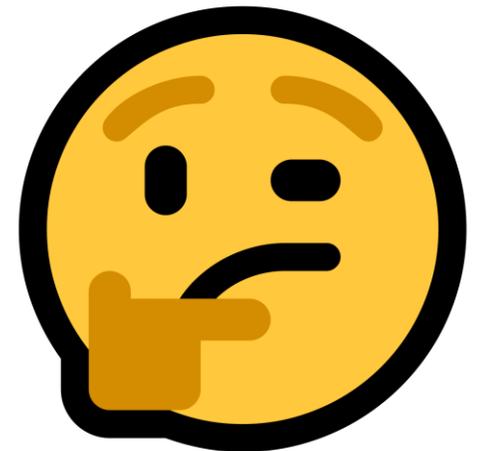
Prognosis

- RCOG: “Prognosis following EAS repair is good...”



Prognosis

- RCOG: “Prognosis following EAS repair is good, with 60-80% asymptomatic at 12 months. Most women who remain symptomatic describe incontinence or flatus or fecal urgency”



Prognosis

- RCOG: “Prognosis following EAS repair is good, with 60-80% asymptomatic at 12 months. Most women who remain symptomatic describe incontinence of flatus or fecal urgency”
- A year after EAS, 20-40% of women will experience incontinence of flatus or fecal urgency



Prognosis

- Future deliveries
 - Mediolateral episiotomy?
 - CS?
 - ≥ 2 previous OASI
 - Symptomatic
- 17-24% of women develop worsening faecal symptoms after a second vaginal delivery even if no obvious trauma

Training & Simulation

- Training improves clinician knowledge, improves recognition, and reduces OASIS
- Long term impacts uncertain



Summary

- Identify & classify
- Correct location & staff
- Antibiotics, analgesia, IDC, PR exam
- Anorectal mucosa: 3-0 polyglactin, continuous or interrupted
- IAS: 2-0 polyglactin or 3-0 PDS, interrupted end-to-end
- EAS: 2-0 polyglactin or 3-0 PDS, interrupted end-to-end or overlapping
- Routine repair of perineum
- PR
- Follow up