

# Childbirth Trauma

and an ageing population

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# Outline

- Childbirth trauma
- Ageing population
- Menopause
- Continence Service Audit
- Where to from here

# Case Study

- 65 year old female
- Nocturnal enuresis until 13
- Urinary urgency – lifetime
- SUI – approx. 35 years
- UUI – 10 years, worsening

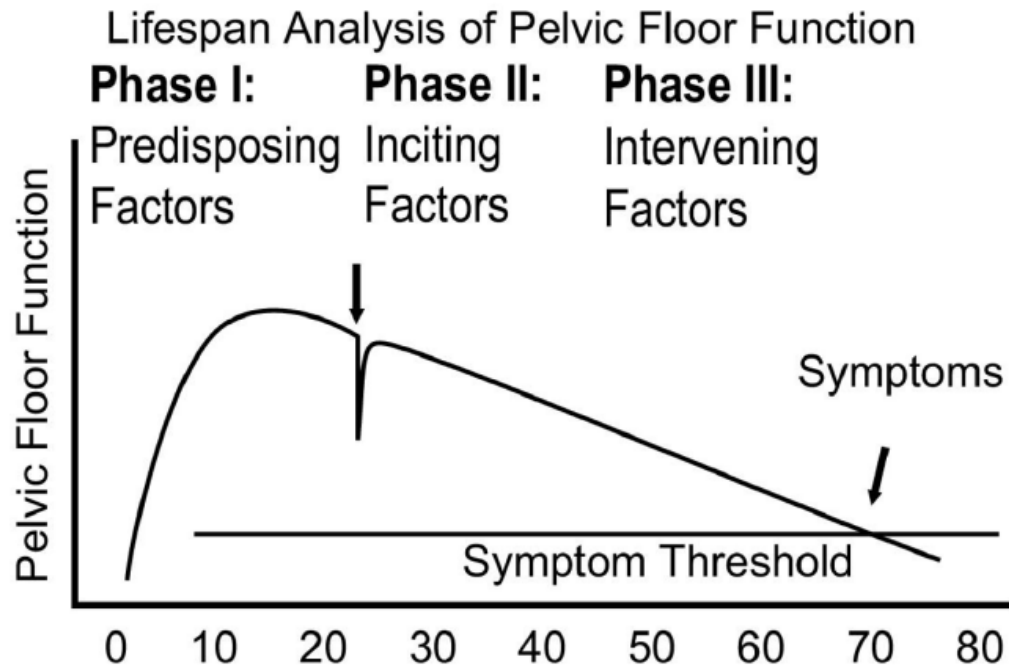
# Case Study

- G3P2
  - 2 x NVD
  - second babe 10lb8, tearing + stitches
- T2DM
- Vaginal hyster & urethral sling 2008
- Retired, active lifestyle

# Case Study

- Urodynamic Studies 2014
  - poor bladder compliance
  - rise in detrusor pressure
  - reduced bladder capacity 280ml
  - marked leakage during filling
  - leakage with coughing at capacity
- Trialled Ditropan, Vesicare, Oxytrol patches and now going well on Betmiga

# Pelvic Floor Lifespan



**Figure 1. Integrated lifespan analysis of pelvic floor function**

This graphical display of the abstract concept of pelvic floor function tracks the functional reserve throughout different phases of a woman's lifespan. Initially, pelvic floor structure growth in late teens leads to a fully developed pelvic floor. Vaginal birth affects pelvic floor function. Finally, age-related deterioration occurs until a symptom threshold is reached where the functional reserve present earlier in life is lost. (© DeLancey 2007)

# Pelvic Floor Lifespan

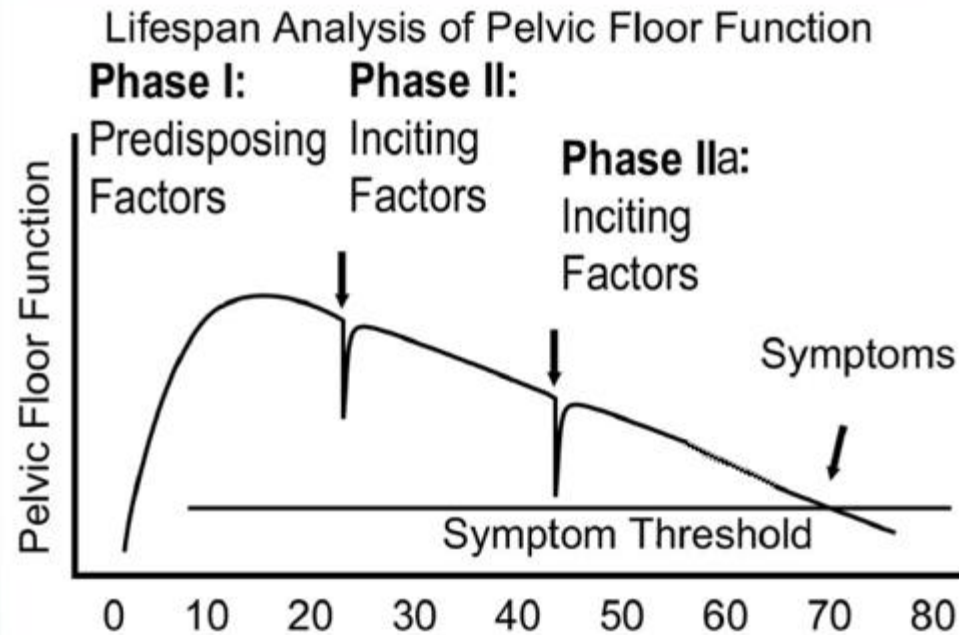
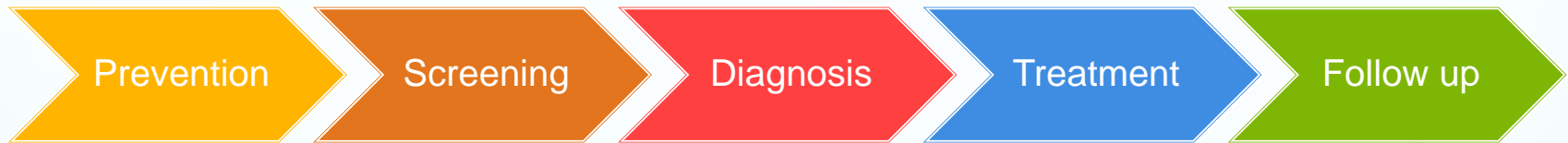


Figure 1. Integrated lifespan analysis of pelvic floor function

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# Continuum of care





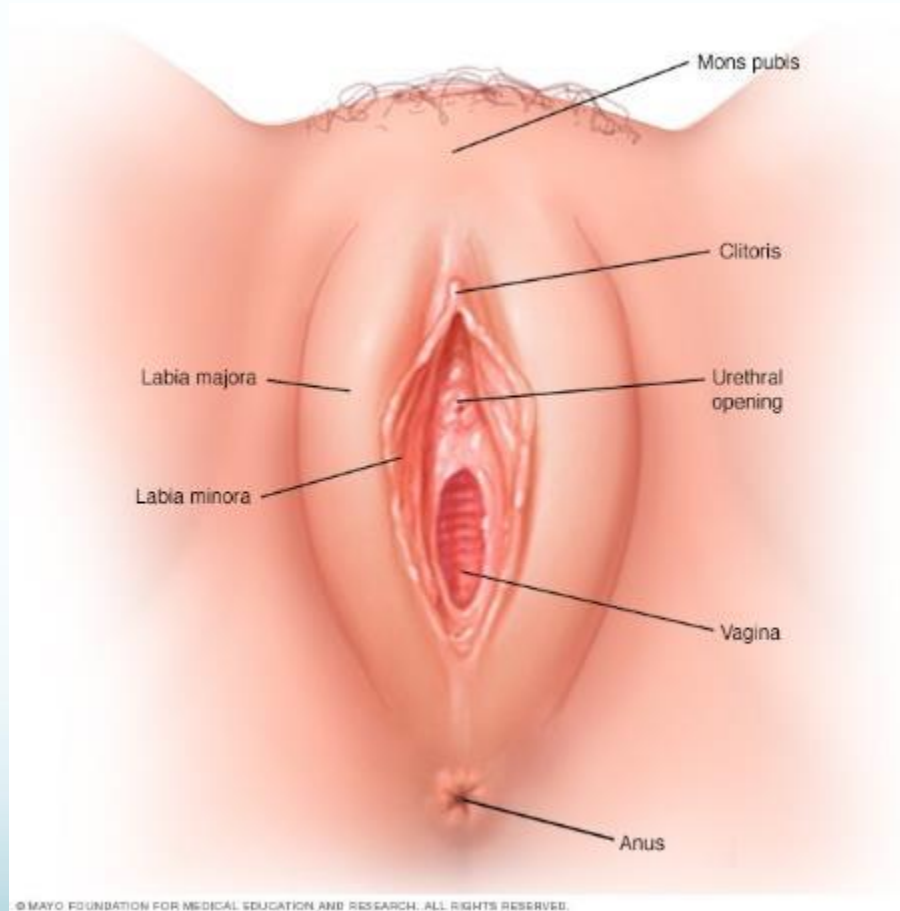
# Vaginal Childbirth

- Unassisted
- Assisted
  - Amniotomy
  - Episiotomy
  - Induction
  - Vacuum extraction
  - Forceps delivery

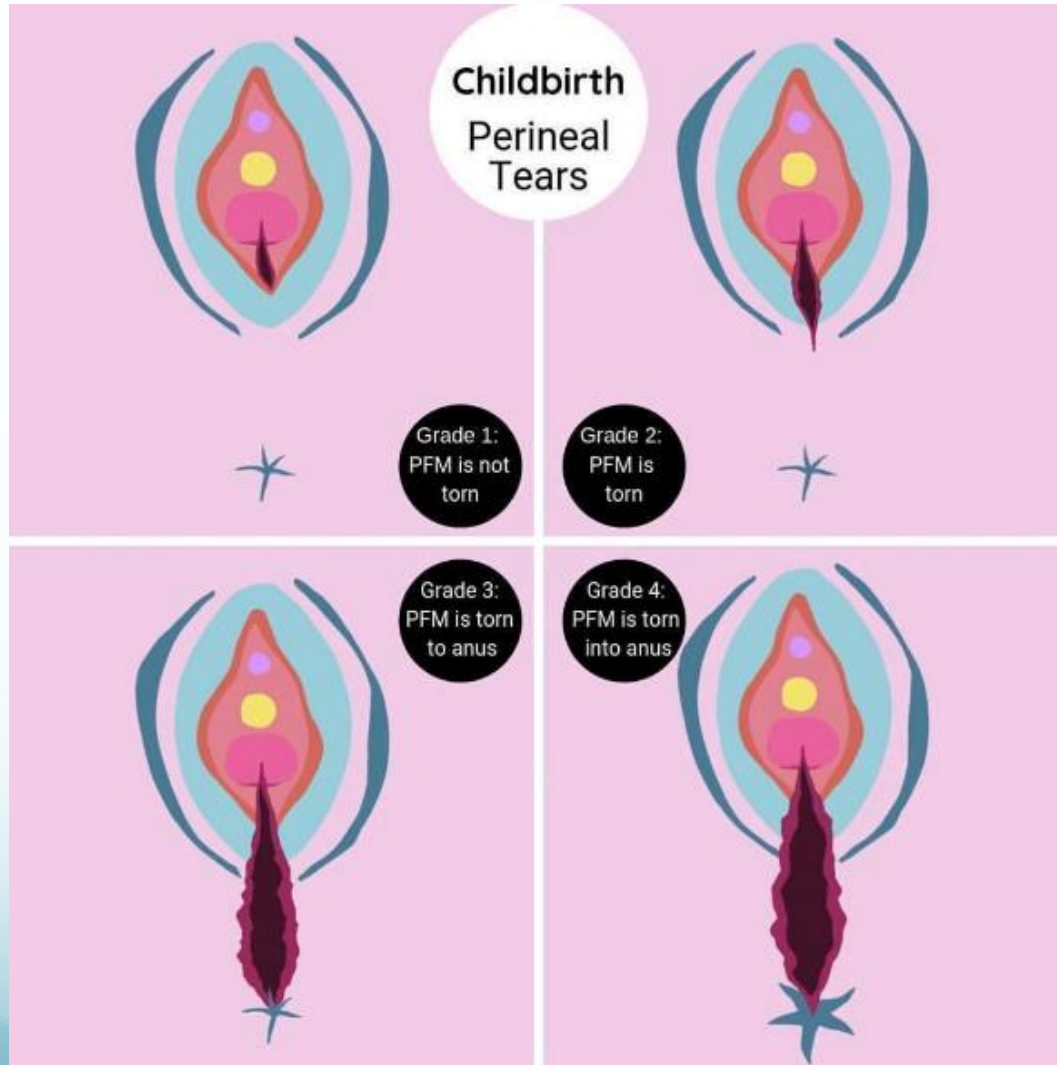
# Childbirth Stats

- 309142 births in 2017
- 2016
  - almost 30% 1<sup>st</sup> time mothers had caesarean
  - 1 in 4 (selected) vaginal births had instrumental assistance
  - 1 in 5 without instruments had episiotomy

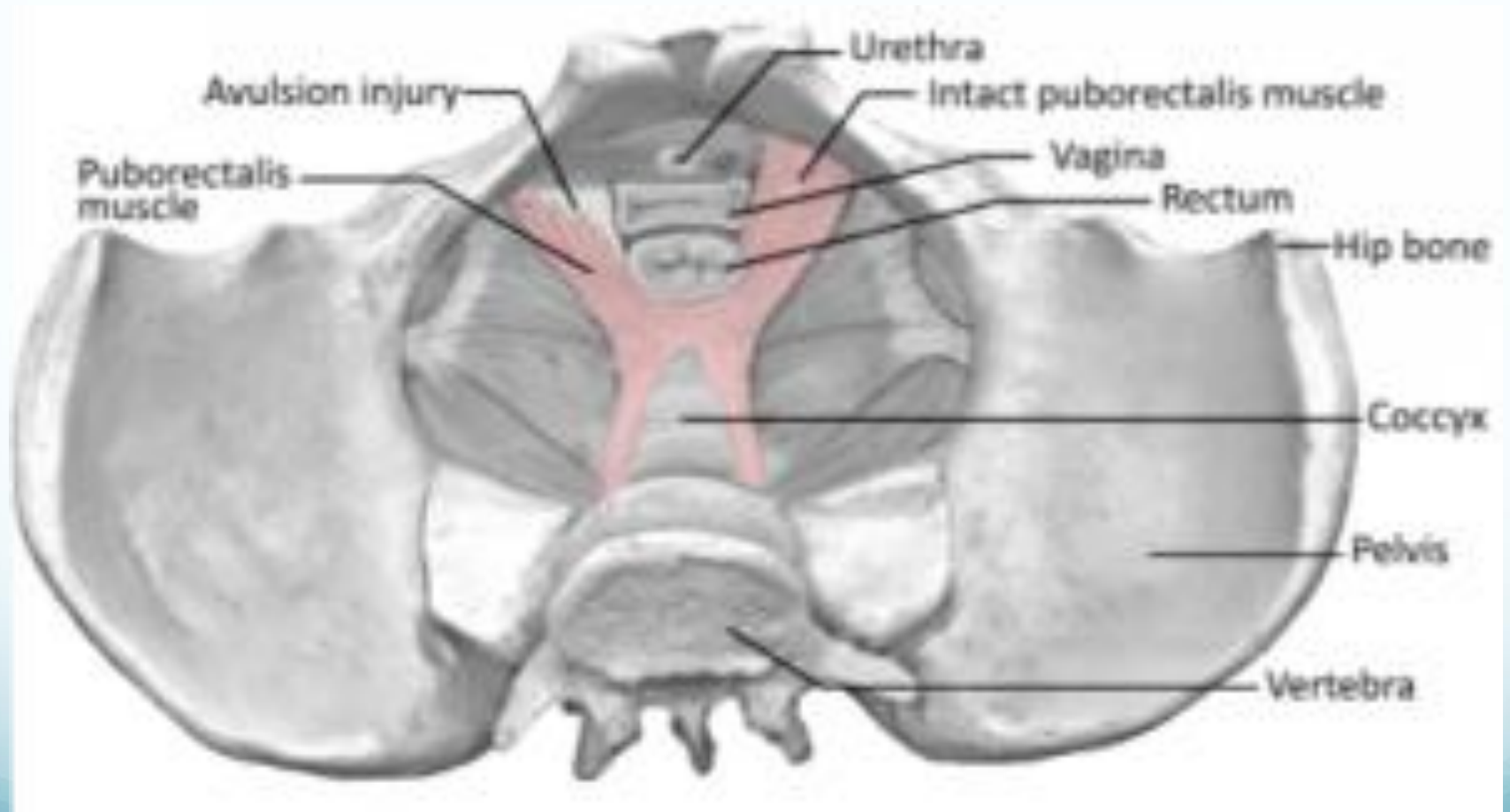
# Vulval anatomy



# Childbirth Trauma



# Levator Avulsion



# Levator Avulsion

- Form of birth trauma
- 10-35% occurrence in first vaginal delivery
- Impairs pelvic organ support
- Associated with POP
  - Enlarges the levator hiatus

# Risk Factors

- Obstetric anal sphincter injuries
- Prolonged active second stage of delivery
- Forceps delivery
- Fetal head circumference
- Episiotomy
- Increased maternal age

# Screening

- LAM tear often unrecognised
- Important to diagnose
  - Increase risk of Urogenital issues
- Digital palpation or Ultrasound
  - MRI in research



# Treatment

- Recovery in first 12 months post partum
  - Muscle vs oedema vs bone
- Pelvic floor muscle training
- Defecation dynamics
- Lifestyle and exercise advice
- Pessary use

# Population Statistics

- 25 million Australians
- 15% aged 65 and over and increasing
- 3 in 10 born overseas
- Higher proportion female
  - 65-74 (51%)
  - 75-84 (54%)
  - >85 (63%)
- Increasing obesity
- Sea change lifestyle



# Ageing Impact

- Muscles change as we age
- Loss of muscle mass and strength
- Known as Sarcopenia
- Muscle fibre changes
  
- Ageing plus vaginal birth...

# Menopause

- The last period at the end of reproductive years
- Most women reach between 45 & 55
- Oestrogen production slows as ovulate fluctuates
- Not all women experience symptoms
  - Night sweats
  - Vaginal dryness
  - Reduced libido
  - Urinary frequency

# Impact of Menopause

- Oestrogen receptors in mucosa and smooth muscle of bladder
- Mucosal changes
  - Thins
  - Atrophies
- Urogenital smooth muscle changes
  -  Tone
  -  Strength

Know what?

So what?

Now what?

# Audit

- Small audit of Urodynamics clients
  - Female
  - >64 years
- N = 13
- Results – almost all significant birth Hx

# Audit – birth Hx

- G4P3 - epis, heaviest 3.1kg
- G4P4 - heaviest >9lb
- G5P5 - heaviest 8lb 15oz
- G2P3 - twin was breech
- G2P2 - tore with many stitches
- G3P3 - forceps
- G5P4



# Assessment

- Childbirth history
  - Type and number of births
  - Trauma
  - Healing
  - Early post-partum symptoms
- Menopause
  - When
  - Symptoms

# Assessment

- Physical examination
  - Skin integrity
  - Scarring
  - Muscle strength and function
  - Levator ani muscle attachments
  - Prolapse

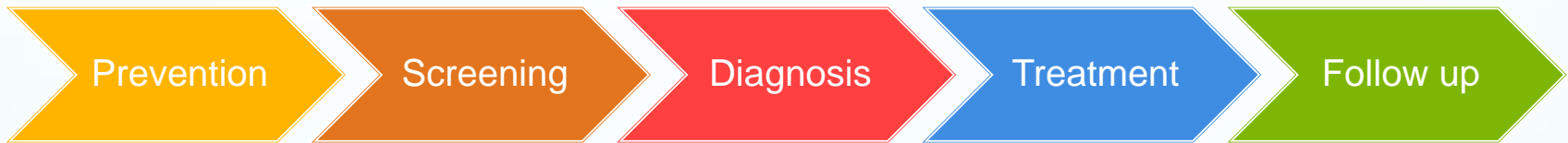
# Management

- Compounding changes to Urogenital function
- Take note those with Hx of traumatic childbirth
- Educate
  - Acceptance of 'this is expected' mantra

# Barriers

- Life-stage barriers
- Reluctance to talk about sensitive issues
- Unaware of treatment options
- Physical access

# What can we do?



# Take home message



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