Physical and Occupational Therapy in the OB World

Helping to achieve a Women's Center of Excellence

Objectives

- Recognizing the role of PT and OT provide in the 4th trimester
- Identify conditions PT and OT are able to treat in the OB patients
- Describe treatment provided by PT and OT for OB patients

Physical and Occupational Therapy's Role in 4th Trimester

"Fourth Trimester"

- "The weeks after birth are a critical period for a woman and her infant, setting the stage for long-term health and well-being. Although childbirth and the postpartum period are exciting life experiences for many women and their families, this also a period of physical, mental, and social change"
- 70% of women describe at least one physical problem in the first 12 months of postpartum
  - Postpartum depression, fatigue, lack of sleep, pain, breastfeeding difficulties, lack of sexual desire, and urinary incontinence

ACOG Postpartum Toolkit

https://www.acog.org/About-ACOG/ACOG-Departments/Toolkits-for-Health-Care-Providers/Postpartum-Toolkit?IsMobileSet=false

ACOG Redefines Postpartum Care

- "New mothers need ongoing care during the 'fourth trimester.' We want to replace the one-off checkup at 6 weeks with a period of sustained, holistic support for growing families. Our goal is for every new family to have a comprehensive care plan and a care team that supports the mother's strengths and addresses her multiple, intersecting needs following birth."

Alison Stuebe, MD, April 2018

https://www.acog.org/About-ACOG/News-Room/News-Releases/2018/ACOG-Redesigns-Postpartum-Care?IsMobileSet=false

ACOG Committee Opinion (May 2018)

To optimize the health of women and infants, postpartum care should become an ongoing process, rather than a single encounter, with services and support tailored to each woman's individual needs

Comprehensive postpartum visit should include a full assessment of **physical**, social, and psychological well being

https://www.acog.org/Clinical-Guidance-and-Publications/Committee-Opinions/Committee-on-Obstetric-Practice/Optimizing-Postpartum-Care

What do Physical and Occupational Therapy Treat

Physical and Occupational Therapy can treat

- Pelvic Pain
  - due to tears; pelvic girdle pain
- Musculoskeletal pain
  - Low back, neck, shoulder, hips, feet
  - Headaches, carpel tunnel, Thoracic outlet syndrome,
- Pelvic floor dysfunction
  - Urinary and fecal incontinence
  - Pelvic organ prolapse
  - Tears and repairs
  - Coccyx pain
- Diastasis Recti Abdominis
- Cesarean Section Scar Management & Recovery
- Exercise recommendations
- Body mechanics for ADLs, childcare, return to work

Low Back Pain

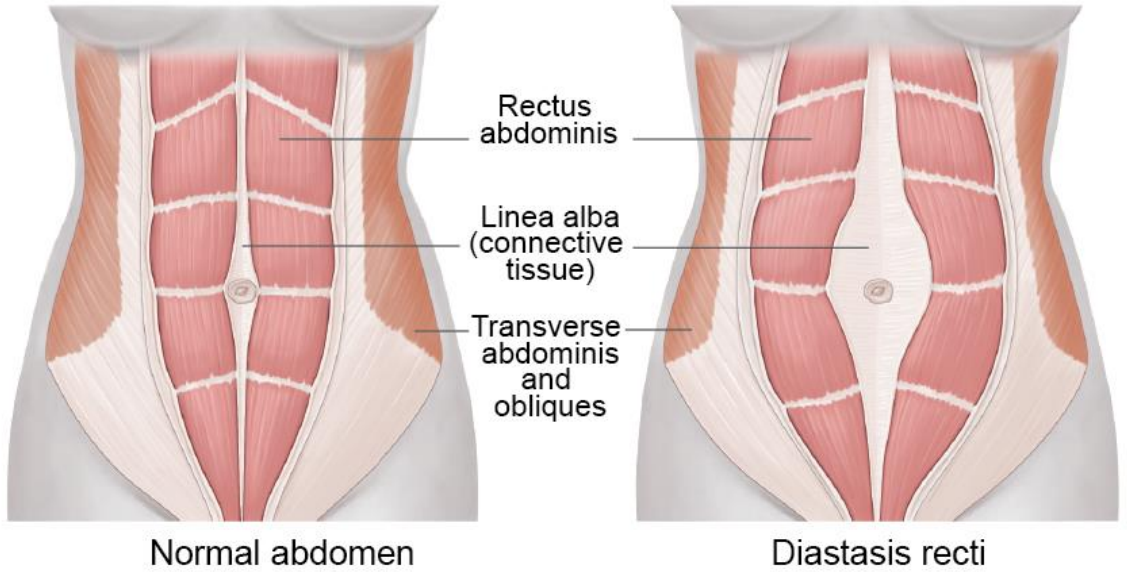
- 40% of women report LBPP at 6 month postpartum
- Association of LBPP and depressive symptoms postpartum has been supported
- VAS score at 3 month postpartum was significantly correlated with VAS scores at first trimester
- LBP may increase with: increased maternal age, prior hx of LBP, successive births, higher BMI, and history of hypermobility

(Uemura et al, 2018, Borg-Stein et al, 2007)

Diastasis Recti Abdominis

- Prevalence
  - 60% at 6 weeks
  - 45% at 6 months
  - 32% at 12 months

  (Benjamin et al, 2014; Benjamin et al, 2018; Mota et al, 2012; Chiarello, 2013; Sperstad, 2016)



Cesarean Section Scar Management

- 1.27 million cesarean sections annually in the US
  - 6-18% result in chronic scar pain (76,000 to 229,000 new cases/yr)
- Functional Impairments
  - ADLs, pain with bowel movements, pain with sexual activity
- Painful adhesion are a common sequela of C-section surgery
  - Abdominal adhesions present in 37% of women with previous C-section

  (Wasserman et al, 2018)
- Caesarean sections: Abdominal Fascia regains 51-59% of its original tensile strength 6 weeks post-surgery and 73-93% at 6-7 months post-surgery (Ceydell et al, 2005)

Pelvic Floor Dysfunction

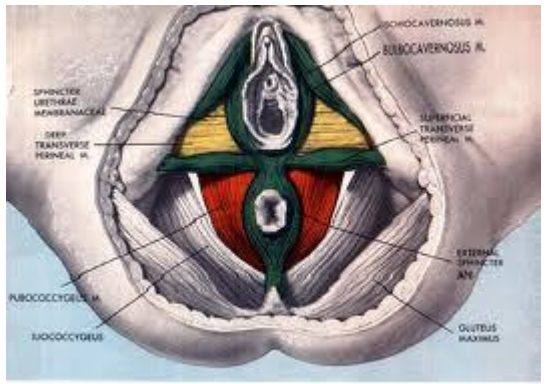
Bladder and Bowel Incontinence

- 1 in 10 women leak gas or feces one year postpartum
- 1 in 3 women have urinary leakage postpartum

(Swenson et al, 2018; Haran et al 2014)

Pelvic Organ Prolapse

- Prevalence: 18-56% at 3-6 month postpartum



Pelvic Floor Dysfunction

Perineal Tears & Repairs

- 85% of women have perineal trauma with childbirth
- 70% need stitches
- May contribute to pain with intercourse, scars and adhesions, urinary or fecal incontinence, pelvic organ prolapse, psychosocial problems & depression

(Webb et al, 2014)

Coccygodynia

- Prevalence 7 - 12% of all coccyx pain
- Instrument deliveries
  - Forceps 50.8%
  - Vacuum-assisted 7.0%
  - "Difficult" births 12.3%
- BMI >27 and > vaginal deliveries associated with higher prevalence of coccyx issues

(Borg-Stein & Dugan, 2007; Maigne et al, 2012, Proisy et al, 2014)

Other Musculoskeletal Issues

- Hip Labral tears
- De Quervain's Tenosynovitis
- Peripheral Nerve injuries
  - UE and LE
- Thoracic outlet syndrome
- Carpal Tunnel symptoms
- General Musculoskeletal issues
  - Headaches, Jaw pain, Neck, shoulders, Rib pain, back, pelvic girdle, foot
  - New or pre-existing
- Co-morbidities
  - MS

PT/OT Treatment

What patients can expect

Exercise Benefits

- Improvements in emotional well-being
- Decrease postpartum depression and anxiety
- Improved physical conditioning
- Reduced postpartum weight gain and faster return to pre-pregnancy weight

(Hayman & Brown, 2016; ACOG 2019; Artal & O'Toole, 2003)

Postpartum population is at high risk for chronic lumbo-pelvic dysfunction, pain, incontinence, and cardiovascular and neurovascular complications

PT/OT are trained to identify risk factors and intervene early to mitigate complications

Depression and Pelvic Girdle Pain

- Attention needs to be given to psychosocial factors, in particular depressive symptoms (O'Sullivan, 2011)
- Post-partum depression 3 times more prevalent in women having pregnancy-related PGP (Gutke et al 2007)
- The more postpartum pain, the higher the risk of postpartum depression (Zhoe 2018)
- Emotional distress are strong predictors of persistence and disability (Bjelland et al, 2013)

PT/OT Session

What to expect in a session

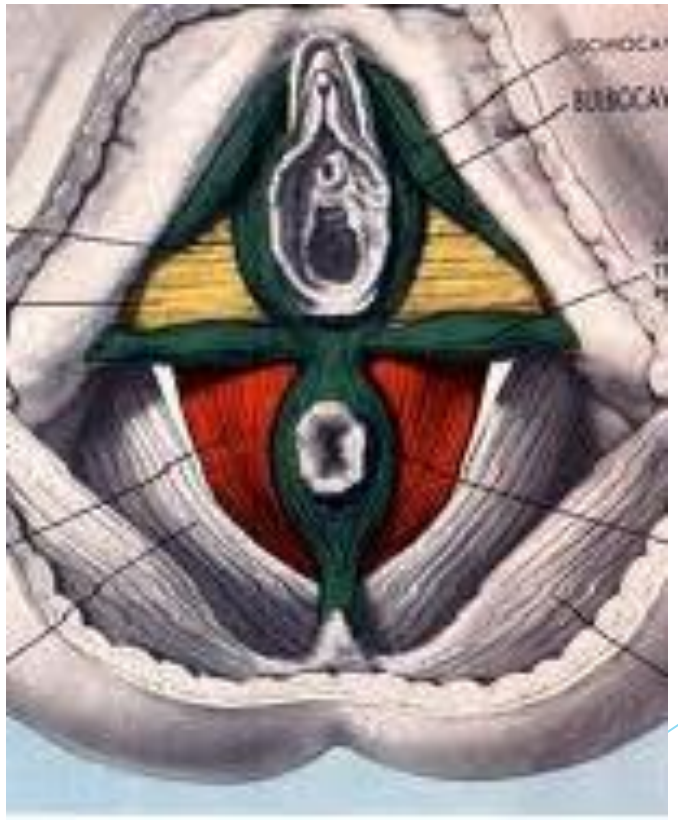
- Evaluation
  - Subjective history
  - Objective findings
- Manual therapy, modalities, exercise, ADL training/lifting mechanics, Postural training
- Develop individual home exercise program and or exercise recommendations
- May be a 1 time visit or continued visits depending on patient's needs

Our approach

- Assess the whole body and treat deficits
- Address core strength and coordination with pelvic floor
- Address goals/fears for return to work, ADLs, exercise, and childcare
- Education!

Pelvic floor muscle training

- PFMT may prevent urinary incontinence up to 6 months after delivery (Boyle 2014)
- PFMT is recommended for persistent postpartum urinary or anal incontinence for 3 months after delivery (Deffieux 2015)



More than Kegels

Do teach Kegels for strengthening and awareness

- Not always appropriate

Teach downtraining for pain issues/relaxation

Dynamic Core and functional use of core for proper back and pelvic floor support during activity

Body mechanics and posture: childcare, breastfeeding, home ADLs

Bowel and bladder education and training

Engaging the Core

- Dynamic Core
  - Diaphragm
  - Tranversus Abdominus
  - Pelvic floor
  - Multifidi
- It’s more than Kegels
  - Functionally using core with ADLs

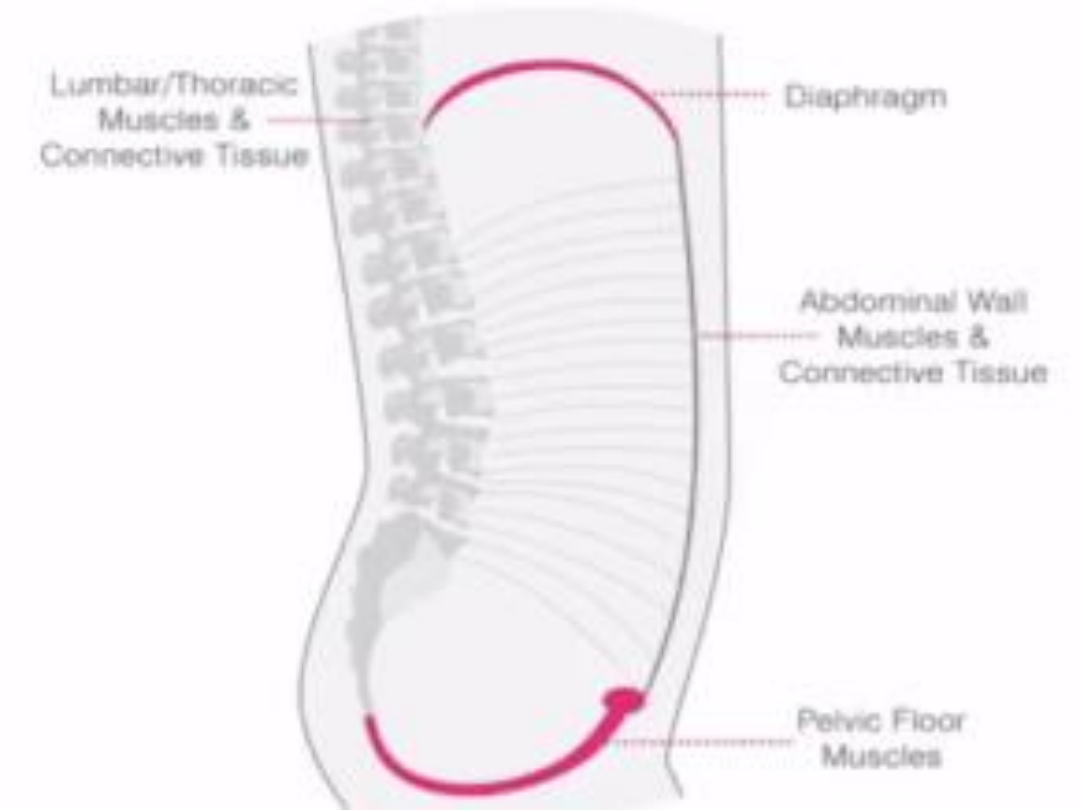


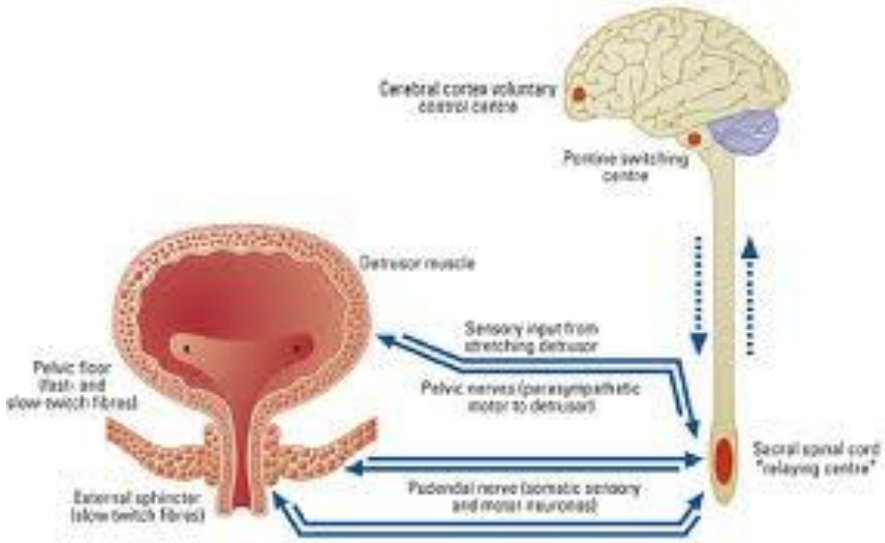
Image Credit: www.burrelleducation.com

Intraabdominal Pressure

Photo Credit: Julie Wiebe, PT

Bowel and Bladder Health

- Bowels
  - Avoiding Constipation and straining
  - Squatty Potty
- Bladder
  - Urge control
  - Role of pelvic floor
  - Emptying techniques
  - Voiding every 2 to 4 hours



C-section Recovery

- Educate on self scar massage
- Perform scar massage
  - Sometimes needs that extra help
- Safe Core strengthening
  - For return to exercise, ADLs, and childcare
- Balance training
- Pain Management

Scar management

- Myofascial release and myofascial inducted therapy have been shown to decrease the scar thickness and increase the scar mobility. Also shown to increase backward bending of the trunk and lumbar spine and decrease abdominal pain
- Both superficial and deep techniques resulted in improved pain score, pressure pain threshold and scar mobility, (4 sessions over 2-3 weeks). Interventions addressed the scar, lumbothoracic and abdominal fascia. Stayed stable for 8 - 16 weeks post treatment

(Wasserman et al, 2018, Comesana et al, 2017)

Core Strengthening

- How to use dynamic core
- Safe exercises
  - Type of delivery
  - Previous activity level
  - Current demands
  - Patient Goals
- How to progress

Diastasis Recti Abdominis

- Therapy can address by training patient on correct and safe strengthening and coordination of all core muscle
- Activation of Transversus abdominus during functional activities

Body Mechanics:
During Pregnancy and Postpartum

- Childcare
- Return to work/ergonomics
- Return to exercise
- Accommodate for injuries
- Postural Education and Strengthening

Case Studies

Postpartum and Pregnancy

Case Study: Postpartum

27 yo; 10 months postpartum, vaginal delivery

- Weakness and back pain, Diastasis Recti
- Pain with lifting, repetitive motions, urgency with voiding, but no incontinence
- Tx: Core and pelvic floor strengthening and coordination,
  - Diaphragmatic breathing and functional use of exhale with activities
  - Body mechanics training
  - Bladder and bowel health education

33 yo; 7 wks pp; Vaginal delivery; 3rd Degree Tear

- Was college ball player, active runner, weightlifting
- Wanted education on safe core strengthening, and return to activity
- Tx: Exercise progression, TA activation, pelvic floor and core strengthening and coordination, diaphragmatic breathing, body mechanics

Case Study: Postpartum

31 yo; 10 wks pp, vaginal delivery,

- history of bowel and bladder issues with running
- Urge incontinence; history of urge with bowel and bladder with running; hx of “weak bladder”
- Wants to prevent worsening and return to full activity; ran once went well
- No DR, good hip strength
- Tx: Kegels, Diaphragmatic breathing, Core and PF strengthening and coordination,
- Bladder and bowel education/habits
- Lifting mechanics

30 yo; 6 wks pp; C-section

- Hx SI pain; instability of innominate
- Wants to return to running (20-30 miles/wk), cycling, weightlifting
- Pubic symphysis pain with asymmetrical motion, tension in abdominal region, L>R, balance no 100%,
- Finding: right innominate up slip, DRA <1 finger; Scar intact, tender, numb,
- Tx: Scar massage/management, core and pelvic floor strengthening and coordination, Diaphragmatic breathing and use in ADLs and workouts.
- Recommendation on progression of core program and running

Case Studies: Postpartum

36 yo; 6 months pp C-section

- Coccyx pain, started in pregnancy continued.
- Did okay initially pp sitting on soft surfaces at home
- Back to work, prolonged sitting on hard surfaces, pain increased. Using a donut
- Finding: DRA 2 finger at and above umbilicus, 1 finger width below
- Tx: pelvic floor and core strengthening and coordination, stretching.
- Education on alterative cushions/support to donut, allow blood flow

Case Study: Pregnancy

30 yo, 17 wks pregnant

- Sciatic pain, pain with sleeping, walking changes, history of back pain, pain at ischial tuberosity
- Works in a shop, lifting up to 30#s,
- Fear of Diastasis Recti and pain after delivery
- Finding: Left innominate upslip, slight weakness right hip, decreased trunk flexion,
- Tx: Body mechanics, core and PF coordination and strengthening, stretching for pain control, positioning for pain control, sleep positioning, foot support at work,
- Addressed fear: prevention of DR, potential treatment of pp pain

24 yo, 31 wks pregnant

- Mid and low back pain, worse with movement, tried pregnancy belt, laying flat helps
- Hx of 2 miscarriages, cautious with lifting and strenuous activity,
- Has 2 daughters, 4 and 5 yo. Is a daycare provider
- Hx of traumatic deliveries, "horrible" delivery, baby in NICU, 2nd delivery very quick. Fear associated with delivery
- Tx: stretching to control pain, positioning pain, diaphragmatic breathing, core and PF strengthening and coordination, foot support
- Education preparing for delivery, Baby currently breech, addressed fears

Referrals

- Any time a patient expresses a concern on musculoskeletal pain or physical health or mobility during pregnancy or postpartum
- Can be years after postpartum and still make good improvements
- Pelvic therapy is also available for pediatrics and men

- When to refer?
  - During pregnancy and postpartum
    - Pregnancy: when issues arise, please identify any precautions.
    - Postpartum: Typically, about 6 weeks postpartum is appropriate time to refer. Always for healing and adjustment to new baby in the house.
    - Can be sooner if felt necessary.
    - Home health an option for immediate home assistance if mobility significantly limited.
      - Transition to outpatient as needed.
- Our Goal: inpatient referrals and automatic outpatient referrals
  - C-sections, 3rd and 4th degree tears, significant mobility issues

Questions

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