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Postpartum Physical Therapy Examination

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SmartBody Physical Therapy
University of North Florida

Course Objectives

- Participants will be able to
  - List at least two tests and measures to complete an examination of a postpartum patient.
  - Identify at least two of the most common postpartum physical complaints and describe their etiology.
  - List at least three interventions for postpartum musculoskeletal injuries and complaints.
The Puerperium

- The period following delivery of the baby and placenta to 6 weeks postpartum
- Reproductive organs and maternal physiology return to pre-pregnancy state
  - Hackler 1986

Childbirth causes trauma

- Physical trauma
  - 70% of women describe at least one physical problem within the first 12 months postpartum
    - (Webb 2008)
  - Perineum rarely escapes laceration
  - 85% of women in the UK sustain some degree of perineal trauma during childbirth
    - (McCandish 1998)
  - 30% of women who deliver vaginally will experience some form of trauma to the pelvic floor resulting in injury to the levator ani
    - (Hoyte 2015)
Physical Trauma of Childbirth

- Normal delivery causes separation and edema at pubic symphysis
  - (Wurdinger 2002)
- Inflammatory cascade is activated to promote healing

![Diagram of the Pelvic Girdle]

Psychological Trauma of Childbirth

- Childbirth can cause posttraumatic stress disorder or symptoms
  - (Beck 2002)
- Postpartum depressive symptoms are 3x more likely in women having back and pelvic pain than those without
  - (Gutke A 07)
World Health Organization Recommendations on Postnatal care of the Mother and Newborn, 2013

Postpartum women should have regular assessments during the first 24 hours, 10-14 days after birth, and 6 weeks postpartum

- At each postnatal contact, enquiries should be made about
- General well-being and emotional wellbeing
- Micturition and urinary incontinence
- Bowel function
- Healing of any perineal wound
- Perineal pain and perineal hygiene
- Headache
- Fatigue
- Back pain
- Uterine tenderness and vaginal discharge
- Breast pain
- Breastfeeding progress

Self Rated Health in the Postpartum

- Self rated health is a valid measure which is an excellent predictor of future health
  - (Miilunpalo 1997)
  - “In general, would you say your health is... (circle one number)
    - Excellent = 1, Poor = 5

- Factors associated with poor postpartum self rated health at 2 months postpartum
  - Tiredness
  - Low back pain
  - Sore nipples
  - Mastitis
  - Perineal pain
  - Headache
  - Neck pain
  - Shoulder pain
  - (Schytt 2005)
Physical therapists are the best!

Physical therapy evaluation postpartum

- Physical therapists diagnose and manage musculoskeletal disorders
- Women benefit from a postpartum evaluation by a physical therapist
  - for assessment of physical health and functioning
  - to provide health and wellness education
  - to provide interventions for optimal musculoskeletal recovery after childbirth
Normal Vaginal Delivery

- 3 stages of labor and delivery
  - Stage 1 “latent”- Uterus begins contractions, cervix begins to dilate
  - Stage 2- time between complete cervical dilation and delivery
    - Lasts minutes to hours
    - Six cardinal movements
      - Engagement of the head into the lower pelvis
      - Flexion of the head, putting the occiput in presenting position
      - Descent of the neonate through the pelvis
      - Internal rotation of the vertex to maneuver past the lateral ischial spines
      - Extension of the head to pass beneath the maternal symphysis
      - External rotation of the head after delivery to facilitate shoulder delivery
  - Stage 3- delivery of placenta
C section

- A surgical procedure used to deliver a baby through incisions in the mother's abdomen and uterus
- Major abdominal surgery

Immediate postpartum Recovery

- 24-72 hours
- Assessed for emergency signs
  - Heavy bleeding
  - Fever
  - Elevated Blood pressure
- General assessment
  - Perineal injury
  - Uterine firmness
  - Urination
- General Muscle soreness
  - Especially in the jaw, arms, or neck
  - Due to hard work of pushing during labor
  - May also have bloodshot eyes, facial bruising or TMJ pain
Painful uterine contractions

- After pains
  - Contractions that assist with shrinking of uterus
  - Worse after increased number of pregnancies
  - Improve after third day
- High Frequency TENS may decrease pain
  - (Olsen 2007)

Systems Recovery

Cardiovascular System
- Average 500mL blood loss during vaginal delivery
- Increased peripheral vascular resistance due to removal of utero-placental circulation
- Plasma volume gradually returns to normal at about 2 weeks
- Significant weight loss due to fluid loss

Renal System
- Plasma flow and glomerulofiltration rate return to pre-pregnant levels by 6 weeks postpartum
  - (Lyon 2008)
Gastrointestinal System Recovery

Week 1
- Constipation 49%
- Hemorrhoids 23%
- Bowel Incontinence 4%

Week 8
- Constipation 28%
- Hemorrhoids 18%
- Bowel Incontinence 1%

Initial Treatment

GI
- Early ambulation
- Stool softeners
- Laxatives
- Commercial preparations
- Avoiding straining
- “Potty posture”

Gas pains
- Especially after C section
- Peristalsis slowed
- Drink and eat small amounts slowly and often
- Avoid gassy foods
- Talk with MD for gas-relieving medications
- Bridge and twist exercise
- “Huffing”
Genitourinary System Recovery

Bladder and urethra may be stretched or bruised during vaginal delivery

- Anesthesia may make it difficult to initiate urination
- Week 1: 19% have Urinary Incontinence (UI)
  - (Cooklin 2015)

- Weeks 2-8 postpartum:
  - Bladder has an increased capacity
  - Bladder has a relative insensitivity to intravesical fluid pressure
  - May cause:
    - Over distention
    - Incomplete emptying
    - Excessive residual urine

- Bladder capacity and contractility should return to pre-pregnant state within 6 weeks
- Week 8: 22% still leaking
- Incontinence should be resolved by 3 months

Initial Treatment of Bladder symptoms

- Drink fluids
- Run water- sound of running water can stimulate bladder muscle contraction
- Stand and/or walk around
- Soak in a tub of warm water
- Gentle pelvic floor muscle (PFM) contraction and relaxation may facilitate restoration of reflex pathways
- PFM exercises should also be performed for vascularization to promote healing
Perineal Lacerations

- The proportion of women with an intact perineum at delivery was just over three-fold higher in multiparous women, 31.2% compared with nulliparae, 9.6% (Smith 2013)

- Perineal lacerations include
  - Spontaneous tearing
  - Instrumented delivery: forceps, vacuum
  - With or Without Episiotomy

Perineal lacerations

- Grades:
  - 1 - skin
  - 2 - plus fat, perineal mm
  - 3 - plus anal sphincter (OASIS = obstetric anal sphincter injuries)
  - 4 - plus rectal mucosa (OASIS)
  - Button hole - rectal mucosa without anal sphincter
  - Alternative sites - anterior to clitoris, into labia, up vaginal side walls

Weber 2005
Risk Factors for Perineal Trauma

- Increased maternal age at first birth (OR 1.28)
- First vaginal birth (OR 4.8)
- Non-African American (OR 1.5)
- Forceps (OR 8.3)
- Vacuum (OR 2.9)
- Episiotomy (OR 5.7)
- Newborn birthweight of 3500g (OR 2.2)
  - Kudish 2008
- Use of regional anesthesia,
  - Deflexed fetal head
- Newborn weight more than 3,500 g
  - (Shorten 2002)

Perineal Recovery

- 74% reported perineal pain a week 1
  - (Cooklin 2015)
- Sore, red, swollen after delivery.
- Typically heals within a few weeks,
- 7% continue to report perineal pain at week 8
- May have pain, discomfort and/or numbness around vagina
- Initial Treatment
  - Ice
  - Pain medicine
  - Sitz baths
  - Warm water rinse while/after urinating
  - Witch-hazel-soaked pads between perineum and sanitary pad
  - Frozen
  - Pelvic floor exercises
    - performed hourly can help with difficulty urinating
    - help increase blood flow and thereby promote healing
Musculoskeletal Recovery

- Neck Pain / Headache
- Low Back Pain / Pelvic Girdle Pain
- Abdominal Wall / C section scar

Neck pain and headache

8 weeks postpartum
- Headache 23%
- Neck and shoulder pain 29.4%
  - Schytt 2005

- Breastfeeding and bottle feeding
- Carrying baby and baby stuff

1 year postpartum
- Headache 31.2%
- Neck and shoulder pain 35.5%
Low Back Pain and Pelvic Girdle Pain

- Low Back Pain (LBP) – above iliac crest
- Pelvic Girdle Pain (PGP) Between the posterior iliac crest and gluteal fold, SIJs, pubic symphysis
- LBP/PGP
  - 50% during pregnancy
  - 25% serious pain
  - 8% severe disability
- 29% to 43.1% still experiencing pain at 6 months postpartum
  - (Olsson 2012, Bergstrom 2014)
- 22% who had no pain in pregnancy had pain at 6 months
  - (Olsson 2012)
- 8.6% still suffering 2 years later
  - (Albert 2001)

Predictors for having persistent PGP or LBP+PGP after delivery

- Low endurance of back flexors
- Older age
- LBP + PGP in early pregnancy
- Work dissatisfaction
  - (Gutke 2008)
- Lower degree of physical activity
- Pain catastrophizing and restricted physical ability
  - (Olsson 2012)
- Serious difficulty with movement activity
  - (Nilsson-Wikmar 2003)
Abdominal Wall Recovery

- Diastasis rectus abdominis
  - A separation of the fascial midline connection of the right and left rectus abdominis muscle bellies at the linea alba > 2 cm

- Develops during and after pregnancy
  - 100% at 35 weeks (n=84)
    - Mota 2015
  - 39% at 6 month postpartum

C section scar

- 1.3 million C sections in US
- 7% - 18% of those will develop chronic scar pain
  - Concado 2012, Nikolaisen 2004
Postpartum Physical Therapy Evaluation

- ICF Model

<table>
<thead>
<tr>
<th>Health condition (disorder or disease)</th>
</tr>
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<tbody>
<tr>
<td>Body Functions &amp; Structure</td>
</tr>
<tr>
<td>Activity</td>
</tr>
<tr>
<td>Participation</td>
</tr>
</tbody>
</table>

- Environmental Factors
- Personal Factors

Contextual factors

History

- Gather a complete medical, health, and psychosocial history of both the mother and the baby using medical history forms and intake questionnaires.

- Specifically, ask the new mom about neck and back pain, pelvic and perineal pain, and bladder and bowel control.

- Consider using condition specific questionnaires such as the pelvic girdle pain questionnaire to identify specific functional impairments and to determine a baseline measurement of function.
Pelvic Girdle Questionnaire

Appendix 1: Pelvic Girdle Questionnaire (English Version)*

To what extent do you find it problematic to carry out the activities listed below because of pelvic girdle pain? For each activity circle the box that best describes how you are today.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Not at all (0)</th>
<th>To a small extent (1)</th>
<th>To some extent (2)</th>
<th>To a large extent (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Climb stairs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Stand for less than 10 minutes</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>3. Stand for more than 10 minutes</td>
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<tr>
<td>4. Bend down</td>
<td></td>
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</tr>
<tr>
<td>5. Sit for less than 10 minutes</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>6. Sit for more than 10 minutes</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>7. Walk for less than 10 minutes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Walk for more than 10 minutes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Climb stairs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Carry light objects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Carry heavy objects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Cut suit down</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Faint or dizziness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Carry out sporting activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. I feel sick</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Roll over in bed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Have a constant ache*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Have a constant ache*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* If not applicable, mark box to the right.

How much pain do you experience:
- None (0)
- Slight (1)
- Moderate (2)
- Considerable (3)

To what extent do you feel your pelvic girdle pain:
- Not at all (0)
- To a small extent (1)
- To some extent (2)
- To a large extent (3)

- *Numbers are scored from 0 to 10, and the results are calculated to provide a score from 0 to 100.

Labor and Delivery History

- Duration of labor, positions, medication and epidural, and how long did she push?
- Did she have any tearing or stitches?
- Find out how her recovery has progressed, the quality of her sleep, and how she is feeding the baby?
Psychosocial History

- What is happening in her home environment?
- Does she have psychosocial and financial resources and support?
- What are her plans for returning to work and childcare?
- How is she coping?

Perinatal Mood & Anxiety Disorders (PMAD)

- “Baby Blues”- up to 75% of women
  - (Robertson 2004)
- Postpartum Depression (PPD)- 13.5%
  - 13.6% in the first month
  - 19.2% in the first year
  - (Gaynes 2005)
- Postpartum psychosis.1-.2%
- Clinical practice guidelines for primary care recommend that postpartum women be asked about her emotional well being
  - (Hsan 2014)
- ASK- how are you doing emotionally?
Pathophysiology and Diagnosis

- Rapid changes in estrogen, progesterone, and prolactin
- Lack of sleep
- Psychological stress of caring for a newborn.
- Diagnostic challenge
  - Symptoms may be confused by physical and sleep deficits occurring normally during early weeks postpartum
- Formal evaluation is indicated
  - Low energy, anorexia, insomnia, hyper-somnolence, extreme sadness, other depressive symptoms.
  - Feeling incapable to care for infant.
- Refer to MD, psychologist, social worker
- Suicidal or homicidal ideations
  - May be considered a medical emergency

Edinburgh Postnatal Depression Scale (EPDS)

- Most widely accepted and used for postpartum depression; valid and reliable, easily accessible.
  - Cox 1987
  - Score of 11 indicates referral
EPDS

- EPDS-3 – 3 question abbreviated EPDS screen: increased sensitivity (95%) and negative predictive value 98%
  - (Kabir 2008).

In the previous week
- I have blamed myself unnecessarily when things went wrong.
- I have been anxious or worried for no good reason.
- I have felt scared or panicky for no very good reason

Answer affirmative to all 3 questions
“Normal” Postpartum Thoughts

- Negative cognitions usually associated with postnatal depression are also experienced by non-depressed new mothers. (Hall 2006)
- Thoughts of baby dying, unrealistic self expectation, sense of being misunderstood, difficulty sharing feelings, negative appraisal of current situation.
- Not dependent upon social factors, number of children, marital status, age, child’s age.
- May feel guilt for thinking/feeling negatively in an experience that is usually associated with happiness.

Screen and Refer

- Refer to physician
- Refer to behavioral medicine specialist
- Refer to Postpartum Support International
  - www.postpartum.net
  - 1-800-944-4773 (1-800-944-4PPD)
Goals for Activity and Function

- Goals and time frames for returning to
  - Physical exercise activity
  - Work activity / return to work
  - Recreational activities

Evaluate for Specific Complaints AND Perform Screening of Entire MSK system
Organization of Exam

- Focus on specific complaint
- Examine by test positions

Standing exam

- Posture
- ROM
- Balance
- Gait
- Functional mobility
Postural Assessment

AROM Cervical
AROM Upper Extremities

AROM Thoracic and Lumbar
Balance and Pelvic Girdle Joint Loading

Sitting exam

- Posture
- Neuro exam
## Reflex Testing

<table>
<thead>
<tr>
<th>Reflex</th>
<th>Nerve Root</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biceps and Brachioradialis</td>
<td>C5 and C6</td>
</tr>
<tr>
<td>Triceps</td>
<td>C7 (and C6)</td>
</tr>
<tr>
<td>Quadriceps Patellar Tendon</td>
<td>L3 and L4</td>
</tr>
<tr>
<td>Hamstring</td>
<td>L5, S1, and S1 and S2</td>
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<tr>
<td>Semimembranosus, Biceps Femoris</td>
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<tr>
<td>Gastrocsoleus Achilles tendon</td>
<td>S1 (and S2)</td>
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## Dermatome Testing

<table>
<thead>
<tr>
<th>Nerve Root</th>
<th>Sensory area</th>
<th>Nerve Root</th>
<th>Sensory Area</th>
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<tbody>
<tr>
<td>C1</td>
<td>Top of head</td>
<td>T1</td>
<td>Inside elbow</td>
</tr>
<tr>
<td>C2</td>
<td>Face</td>
<td>L1</td>
<td>Over greater trochanter</td>
</tr>
<tr>
<td>C3</td>
<td>Lateral Neck</td>
<td>L2</td>
<td>Anterior thigh to knee</td>
</tr>
<tr>
<td>C4</td>
<td>Top of shoulder</td>
<td>L3</td>
<td>Anterior thigh and medial</td>
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<tr>
<td>C5</td>
<td>Shoulder to base of thumb</td>
<td>L4</td>
<td>Outer thigh, patellar knee</td>
</tr>
<tr>
<td>C6</td>
<td>Front of shoulder, front of arm, thumb</td>
<td>L5</td>
<td>Outer lower leg, top of foot</td>
</tr>
<tr>
<td>C7</td>
<td>Back of shoulder, back of arm</td>
<td>S1, S2</td>
<td>Lateral foot</td>
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<tr>
<td>C8</td>
<td>5th digit</td>
<td>S3</td>
<td>Groin</td>
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Myotome Testing

<table>
<thead>
<tr>
<th>Nerve Root</th>
<th>Muscle action</th>
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<tbody>
<tr>
<td>C1, C2</td>
<td>Cervical flexion</td>
</tr>
<tr>
<td>C3</td>
<td>Cervical side flexion</td>
</tr>
<tr>
<td>C4</td>
<td>Scapula elevation</td>
</tr>
<tr>
<td>C5</td>
<td>Shoulder Abduction</td>
</tr>
<tr>
<td>C6</td>
<td>Elbow flexion and wrist extension</td>
</tr>
<tr>
<td>C7</td>
<td>Elbow extension and wrist flexion</td>
</tr>
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<td>C8</td>
<td>Thumb extension</td>
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<tr>
<td>T1</td>
<td>Finger abduction</td>
</tr>
<tr>
<td>L1, L2</td>
<td>Hip flexion</td>
</tr>
<tr>
<td>L3</td>
<td>Knee extension</td>
</tr>
<tr>
<td>L4</td>
<td>Ankle dorsiflexion</td>
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<tr>
<td>L5</td>
<td>Big toe extension</td>
</tr>
<tr>
<td>S1</td>
<td>Ankle plantar flexion</td>
</tr>
<tr>
<td>S2</td>
<td>Knee flexion</td>
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</table>

Provide Treatment and Education While Performing Examination
Examination in side lying

- Hip muscle tests
- Shoulder and scapular mobility
- Hip flexibility
- External palpation of pelvic floor muscles

Hip Abduction MMT
Posterior Capsule Mobility

Hip / ITB Flexibility
Side lying spinal alignment

All postpartum women benefit from a musculoskeletal pelvic floor exam

External exam only provides information about ability to contract the muscle
Can not fully assess muscle function
External Palpation PFM

Pelvic Floor Examination

- Wait at least 3 weeks after delivery to perform an internal vaginal pelvic floor exam
- Voluntary
  - Contraction
  - Relaxation
- Involuntary
  - Contraction
  - Relaxation
Refer the patient to skilled pelvic floor PT

- Known perineal injury Grade 2 or greater
- Urinary incontinence or other bladder control problems
- Fecal urgency or incontinence
- Vaginal or rectal pain
- Suspected pelvic organ prolapse

Components of Internal PF Exam

- Pelvic Floor Muscle Function
  - Strength
  - Endurance
  - Coordination
  - Quality of contraction and relaxation
- Integumentary: Healing of any lacerations or scars, Hemorrhoids
- Areas of pain in the pelvic floor muscles
  - Trigger points
  - Atrophy
  - Prolapse
Pelvic Organ Prolapse

- Descent of pelvic organs from normal anatomical position
  - bladder, urethra, uterus, rectum,
- May cause symptoms of
  - Urine leakage
  - Bulging feeling
  - Difficulty with evacuation of bowels
- If suspected, refer to trained pelvic PT for evaluation
- Skilled rehabilitation is need before beginning abdominal muscle training and high impact exercise

Supine Exam

- Abdominal wall
- Pelvic Girdle Provocation testing
- LE AROM and flexibility
- Cervical spine passive motion and palpation
- UE AROM, PROM, joint mobility
Test for Diastasis Rectus Abdominis

- Sound head is place horizontally at the midline umbilicus
  - (Teyden 2007)
- “Cat eye” images of rectus abdominis bellies is visualized
- Distance measure using US imaging machine
- US accurate method to measure rectus diastasis above and at the umbilicus
  - (Mendes 2007)

Ultrasound Imaging

- Gold standard of measurement
- Sound head is place horizontally at the midline umbilicus
  - (Teyden 2007)
- “Cat eye” images of rectus abdominis bellies is visualized
- Distance measure using US imaging machine
- US accurate method to measure rectus diastasis above and at the umbilicus
  - (Mendes 2007)
Measurement

- Using a digital caliper was found to have a high interrater and intrarater reliability
  - (Chiarello 2005)

- 4.5 cm above and below and at the umbilicus
  - (Chiarello 2005)

- Superior and inferior border of umbilicus, and 2.5 cm above the former and 2.5 cm below the latter
  - (Liaw, 2011)

What distance is clinically significant?

- "2 fingers"?
- 2 cm (20 mm) Mendes 2007
- 2.5 cm (25 mm) Chiarello 2005
- 1.6 cm (16 mm) Mota 2015
Abdominal muscle test

- Sahrman: maintain neutral while performing leg movements
- Kendall- double leg lowering
- Curl up-
Transversus Abdominis Contraction

C section scar
3 Positive Provocation tests to diagnose Pelvic Girdle Pain

- PGP Provocation Tests
  - Patrick’s Faber
  - Posterior Pelvic Pain Provocation Test (P4)
  - Gaenslens’ test
  - Modified Trendelenberg test

- Pain Palpation Tests
  - Pubic Symphysis palpation
  - Long dorsal ligament (LDL) test

- Functional / Load Transfer tests
  - Modified Trendelenberg test
  - Active Straight Leg Raise Test (ASLR)
  - Stork test
Iliopsoas

Supine

- UE AROM
- Cervical spine exam
Prone examination

- Palpation
- Intervertebral passive motion testing
- Provocation testing
- Scapular muscle tests
- Hip muscle tests
- LE flexibility

Coccyx Palpation
ROM

- Provocation testing
- Scapular muscle tests
- Hip muscle tests
<table>
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<tr>
<td>Temperature</td>
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<tr>
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<tr>
<td>Air Pressure</td>
<td>0.6 atm</td>
</tr>
<tr>
<td>Wind Speed</td>
<td>0 mph</td>
</tr>
<tr>
<td>Wind Direction</td>
<td>North</td>
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</table>
Promotion of Musculoskeletal Recovery in the Postpartum
Strategies and Interventions

.... Is Not Normal

- Pain
- Urine leakage
- Fecal Urgency
- Tailbone pain
- Painful intercourse
Key Information

- Feeding baby
- Lifting
- Childcare mechanics
- Pelvic health

Feeding
Lifting

97

98
Care For Your Back When You Care For Your Baby

- Keep your feet shoulder width apart for a wide base of support and greater stability.
- Keep your baby as close to you as possible.
- Keep your back in a neutral position or slight pelvic tilt (do not arch or flatten your back).
- Use your leg muscles to do the work.
- Keep your feet shoulder width apart for a wide base of support and greater stability.
- Don’t hold your baby all the way on your hip, keep your baby slightly towards your middle in order to avoid sticking your hip out and creating more stress on your back.
- Carry the baby carrier with two arms and hold it underneath.
- Balance what you carry in one hand with something in the other (eg. purse and baby bag).

Tips For Keeping Your Back Safe During Baby Care Activities:

- **Breast feeding**: Sit in a comfortable chair with a pillow behind your back, put one foot on a stool, put your baby on a pillow(s) on your lap to elevate the baby to your breast. DO NOT bend down to bring your breast to the baby.
- **Floor lift**: Get down onto two knees and hinge from your hips, don’t bend your back, keep your baby close.
- **Stroller lift**: Spread feet apart, bend knees, hinge at hips, get close to baby before lifting, use legs.
- **Car seat lift**: Get your body in the car as close as possible before lifting, keep baby close, use legs.
- **Changing table lift**: Spread feet apart, bend at hips and knees, not at your back.
- **Crib lift**: Lower the railing before lifting, spread feet apart, bend knees, hinge at hips, get close to baby before lifting.
• **Carry**: Keep your baby slightly towards your middle, feet apart.
• **Baby hugger carry**: Carry baby as close to the top of your center of gravity as possible.
• **Bathing in portable bath**: Spread feet apart, bend knees, hinge at hips, get close to baby.
• **Bathing in bathtub**: Kneel or half kneel at the side of tub. If sitting, hinge from hips and don’t bend from your back, kneel as close as possible to baby.
• **Dressing**: Bring baby close, don’t bend your back.
• **Getting stroller out of car**: Bend knees and brace them against the bumper, slide the stroller as close as possible, hinge at your hips to get close to stroller, use your legs to do the lift.
• **Putting stroller in the car**: Spread feet apart around stroller and get as close as possible, bend your knees and hinge at hips, use legs to lift, brace knees against bumper, set stroller down close to you, slide it from there into the trunk.
• **Highchair feeding**: Pull a chair up close, hinge from your hips instead of bending forward. If standing, stand close with feet apart, hinge from your hips instead of bending.

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**Housework**

[Images of a woman doing housework]
Pelvic Floor Recovery and Rehabilitation

- Childbirth is associated with stress urinary incontinence, fecal incontinence, prolapsed and pain
- Pelvic floor muscle exercise is beneficial for recovery
- Connective tissue support restoration will occur for 6 months
- Consider a pelvic floor support garment
  - (Lyon 2008)

Pelvic Health

- All postpartum women should perform pelvic floor muscle exercises beginning as soon as possible after delivery.
- Pelvic floor-muscle training improves pelvic floor-muscle function, and starting after the puerperal period, exercise appears to have positive effects on female sexual function.
  - (Citak 2010)
Recovery of Sexual Function

- Avoid intercourse until bleeding has stopped
- Get clearance from MD at 6 week check-up
- Avoid if painful or uncomfortable
  - Try other forms of intimacy
  - Dyspareunia 28.5%
    - (Schytt 2005)
- May take at least 4-6 weeks to heal
- Typical return to intercourse 6 weeks to 3 months
  - (Glazener 1997)(Abraham 2003)

Pelvic Floor Muscle Training

- Goal is to perform at least 10 repetitions of 10 second sustained contractions without using excessive abdominal or gluteal muscle co-contraction, and without significant fatigue during the exercise set.
  - She may have to start with 5 second contractions
- She should also be able to perform quick contractions with a maximal squeeze and full and complete relaxation in between.
- She should perform at least 3 sets of 10 reps of both endurance and fast twitch pelvic floor exercises daily during the postpartum year.
Optimize joint loading

Abdominal Wall
- Post C section care
- Diastasis Rectus Abdominis
- Core Muscle Training
Recovery from C section

- Abdominal and pelvic floor muscle contractions
- Infant care body mechanics
- Diastasis recti abdominis approximation exercises
- Return to physical activity
  - (LaPorta 2006)
- Taping / binder

C section scar massage

- Scar is considered fully healed after 6 weeks
- Scar should be freely mobile in all directions, both superficially and deep
- Scar should be non-tender
- Instruct in scar mobilization
Curl Up With Approximation

Core stabilization
Exercise with Baby

Plank

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Encourage Exercise

Return to physical activity in the postpartum

- Key to restoration of mother’s musculoskeletal health
  - Should be stress relieving, not stress inducing

- Focus on pelvic floor and abdominal muscles as soon as possible after delivery

- Return to physical activity
  - Begin with 15 minute bouts of walking to tolerance
Goal Of Care In The Postpartum Period

• ‘to detect health problems of mother and/or baby at an early stage, to encourage breastfeeding and to give families a good start’.  
  • (Weber 2006)

Ideally

• All women will receive a physical therapy evaluation after childbirth to:
  • Identify impairments and pain resulting from pregnancy and childbirth
  • Establish baseline health status
  • Develop strategies to promote optimal postpartum recovery, and
  • Promote return to desired level of activity and function
Thank you!