Management of Pelvic Floor Disorders

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CONTRA COSTA REGIONAL MEDICAL CENTER
NOON CONFERENCE SERIES

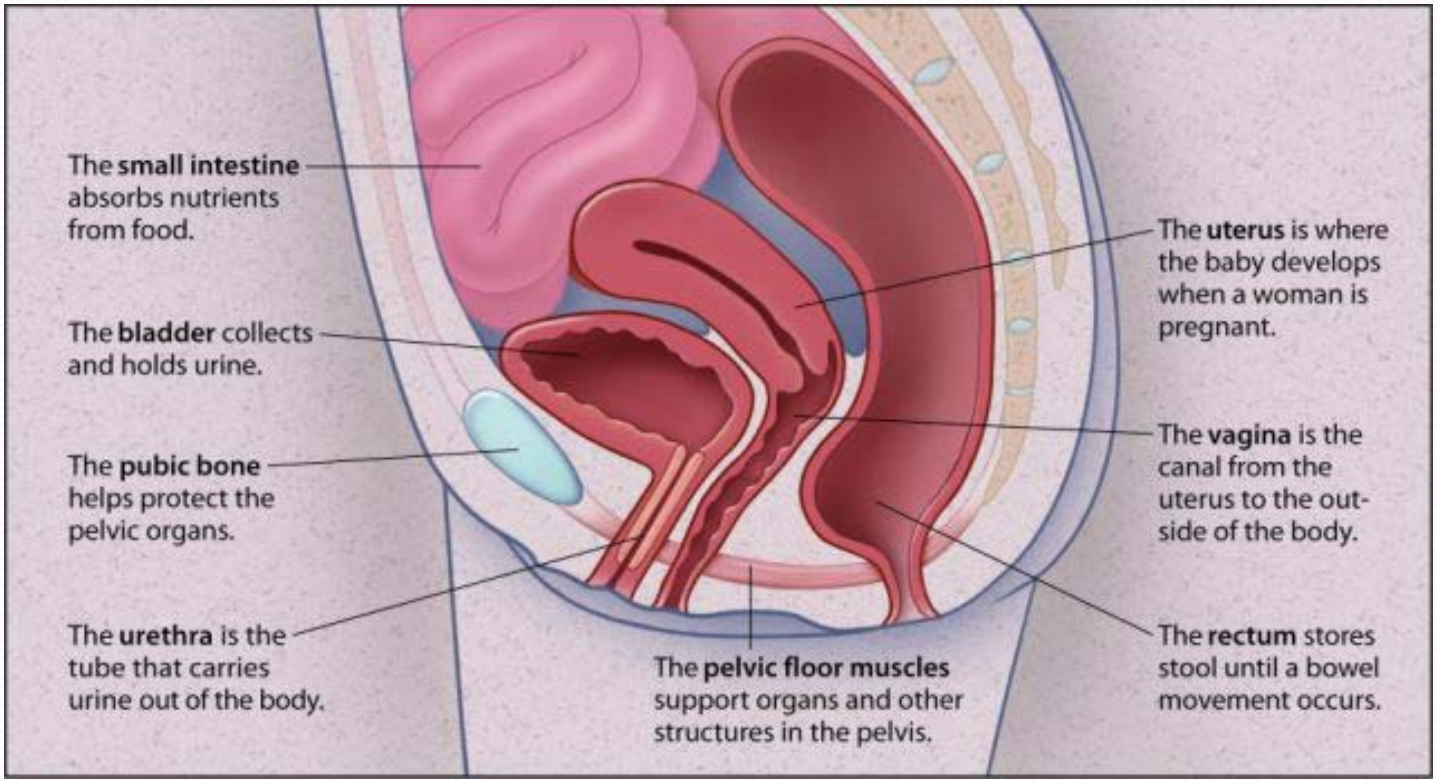
DISCLOSURE OF CONFLICT OF INTEREST

o Speaker has nothing to disclose

Overview

- Introduction to Pelvic Floor
- Biomechanics
- Physical Therapy Assessment/Treatment
- Patient Diagnoses and Referrals

What is the Pelvic Floor?



Anatomy

- Boundaries
- Contents
- Complex structure

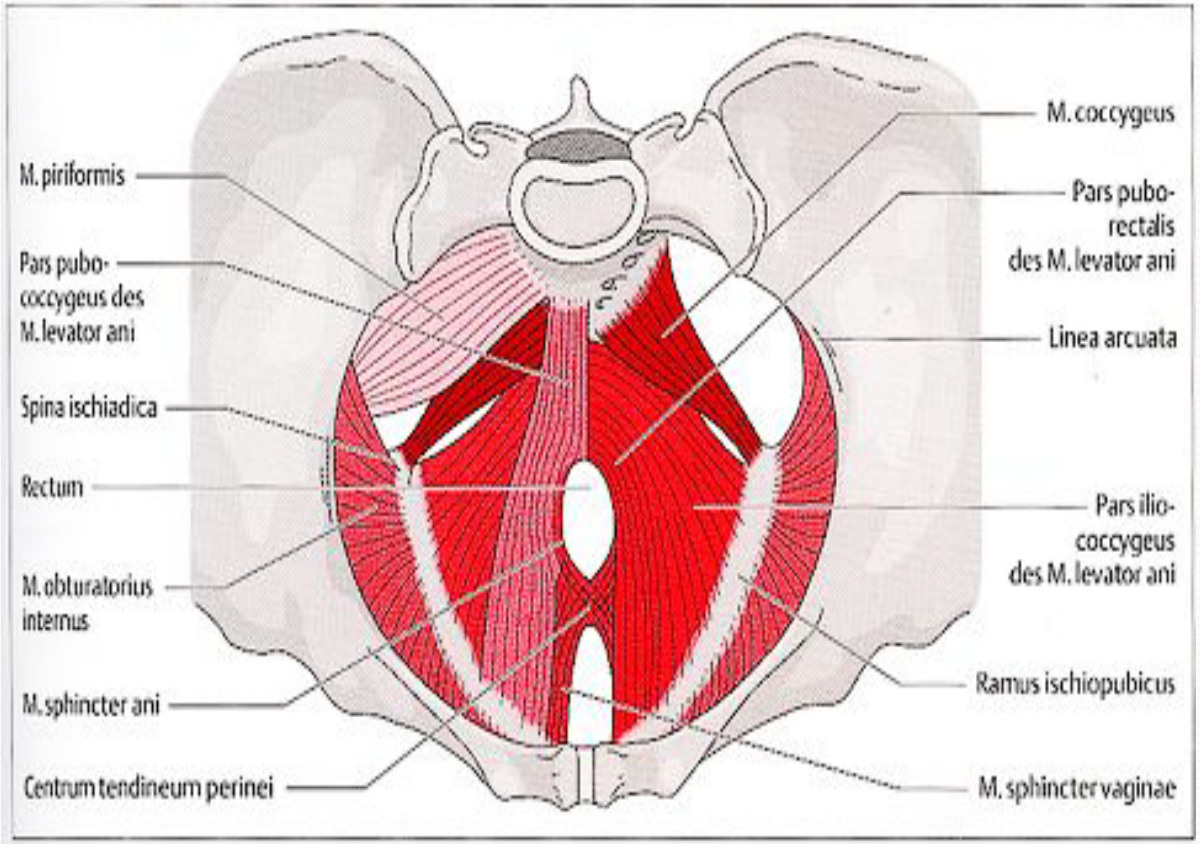
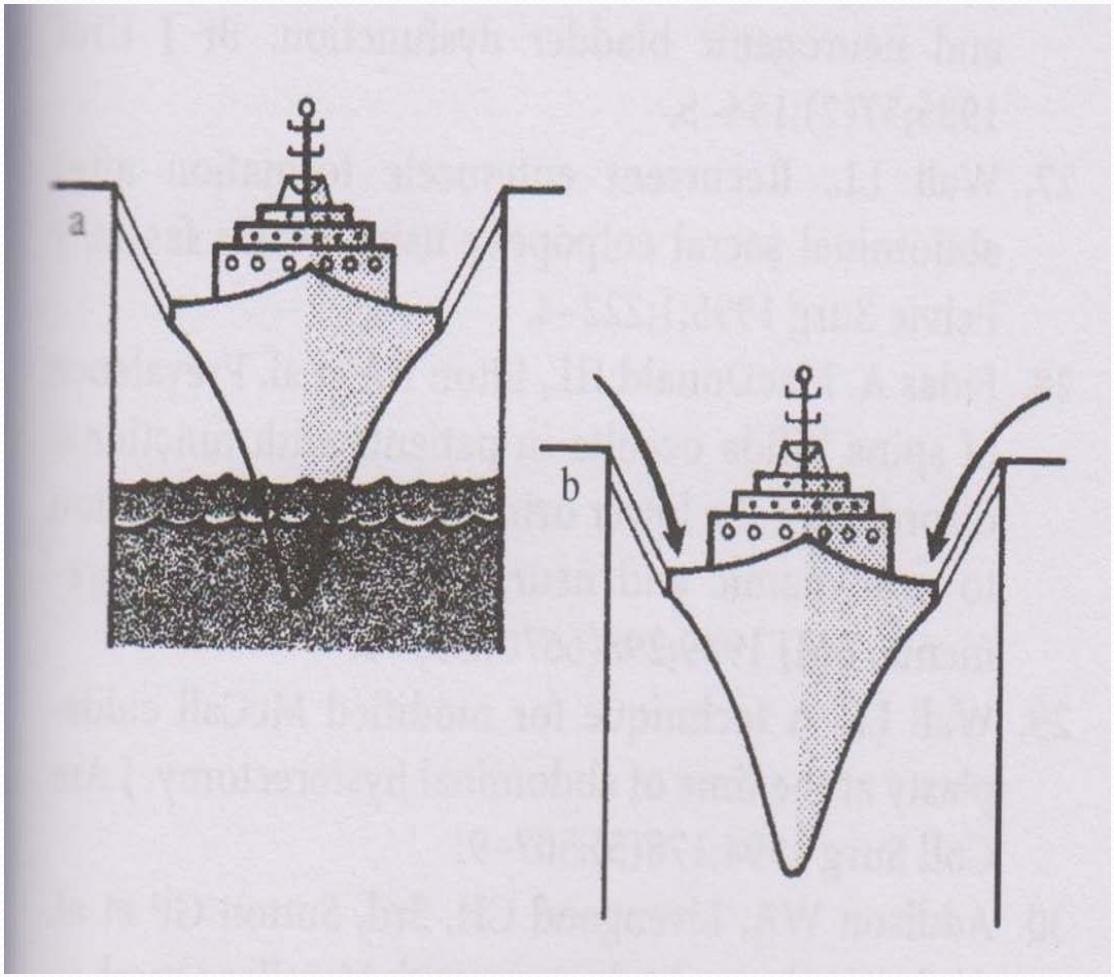


Abb. 2.135 Weibliches Diaphragma pelvis (Ansicht von kranial).

The Role of the Pelvic Floor

- Support
- Trunk fixation
- Sphincteric
- Sexual



Types of Pelvic Floor Dysfunction

- Supportive dysfunction
- Hypertonia dysfunction
- Incoordination dysfunction
- Visceral dysfunction

Urinary Incontinence

- 13 million Americans are incontinent – 85 % women
- ¼ women >18 years experience episodes of leaking urine involuntarily
- 50% of all nursing home residents are incontinent and many of them experience loss of bowel control as well

Fecal Incontinence

- Prevalence: estimated 6% in women <40 yo to 15% in older women in the community
- Men: 6-10%, also increasing with age

Types of Urinary Incontinence

- Stress
- Urge
- Mixed
- Overflow
- Functional

Pelvic Organ Prolapse

- Staged 1-4
- Few studies have been conducted
- WHI clinical trial (1994-1998) reported prevalence of POP among 27,342 women
  - Results:
    - 16,616 Women with uterus: 14.2% uterine prolapse, 34.3% cystocele, 18.6% rectocele
    - 10,727 Women who had undergone hysterectomy: 32.9% cystocele, 18.3% rectocele

Biomechanics

Core musculature to Consider

- Transverse abdominus
- Multifidus
- Diaphragm
- Internal obliques
- Deep fibers of psoas
- Deep fibers of quadratus lumborum
- Upper respiratory (glottis and vocal folds)
- Pelvic floor muscles

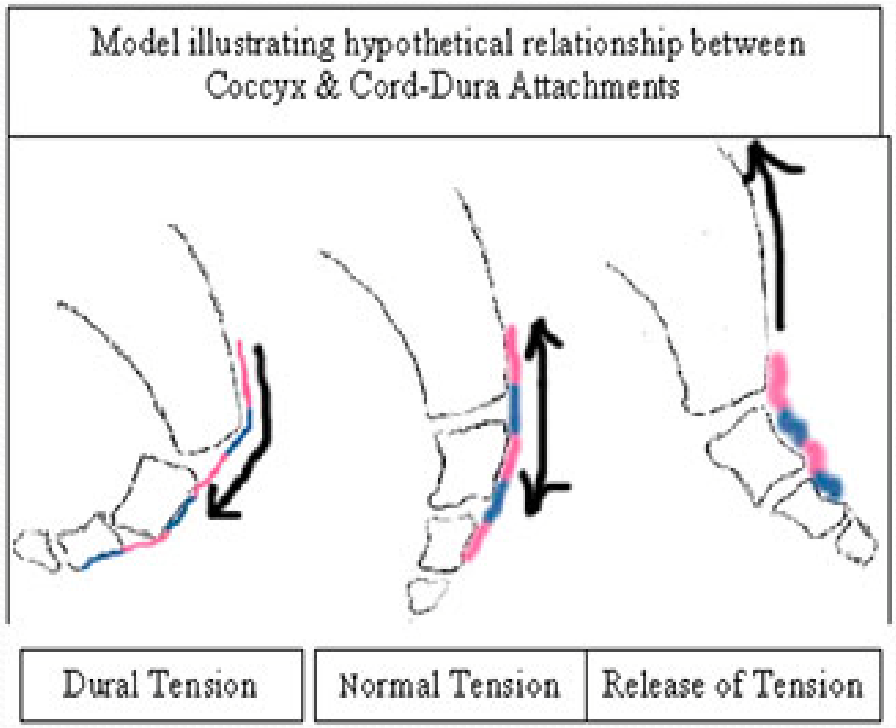
Efficient System

- Mechanical mobility
- Neuromuscular components
- Motor Control
  - Integration

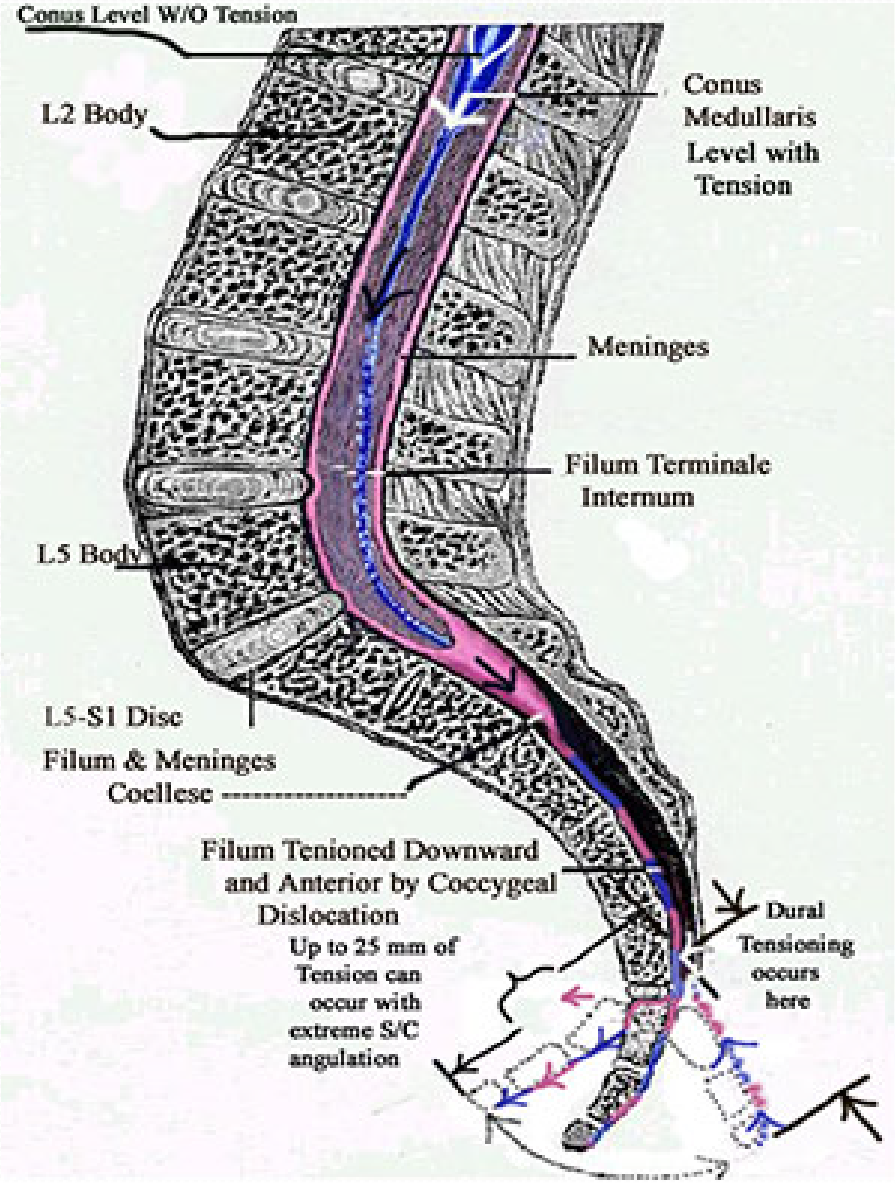
Mechanical Considerations of the Pelvis/Coccyx

- SIJ
- Pubic ramus
- Ischial tuberosity mobility
- Sacrococcygeal junction
  - Anchor of pelvic floor muscles and viscera

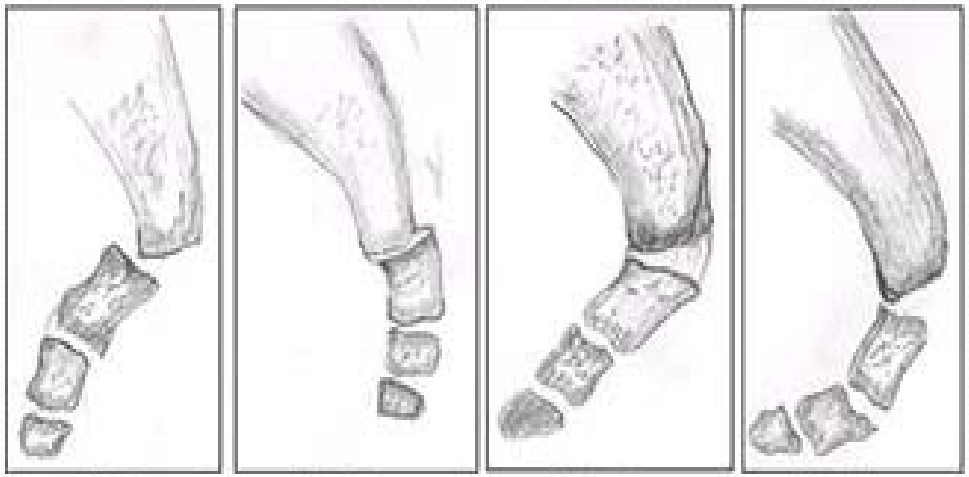
Sacroccygeal Joint



Dura and the Coccyx



Abnormal



Anterior dislocation | Posterior dislocation | Anterior angulation | Hooked coccyx

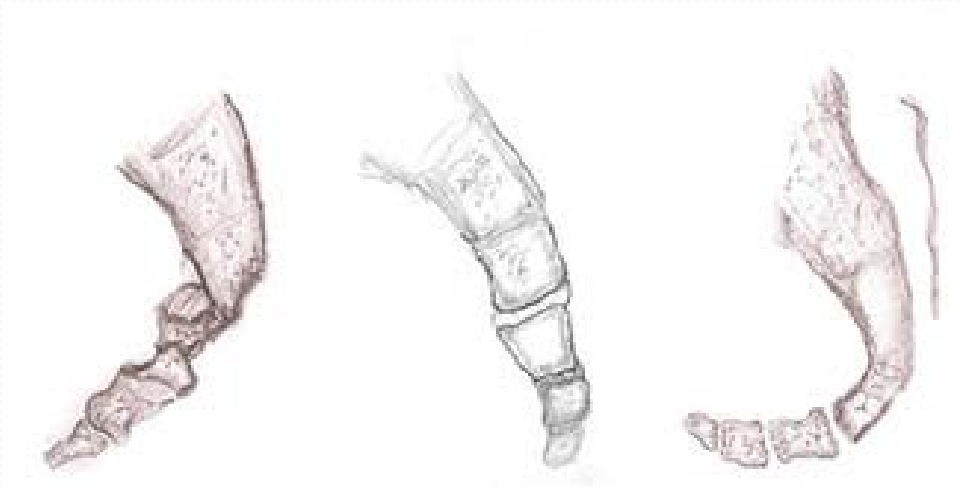


Fig. 23 Full dislocation with late stage segmental fusion.

Fig. 24 Poorly defined segments with distal segment fusion

Fig. 25 Hooked Coccyx exaggerated by healed S5 fracture

Physical Therapy Assessment and Treatment

24 Hour Bladder Diary

Time	Record drinks taken (type and amount)	Record Volume	Tick when you changed a pad/panty liner	Each time you leak urine, circle whether you were:
6 am				Almost Dry Damp Wet Soaked
.....				
.....				
.....				
.....				
.....				
5 am				Almost Dry Damp Wet Soaked

Patient Assessment

- Complete History
- Questionnaires

Center for Female Continence PFIQ-7

PT INITIALS_____ DATE_____
I.D. Number_____ Research Site_____

Pre ☐, 3 mo☐, 6mo☐, 12 mo☐, 24 mo☐, 36 mo☐, 60 mo☐

Pelvic Floor Impact Questionnaire—short form 7

Instructions: Some women find that bladder, bowel, or vaginal symptoms affect their activities, relationships, and feelings. For each question place an **X** in the response that best describes how much your activities, relationships, or feelings have been affected by your bladder, bowel, or vaginal symptoms or conditions **over the last 3 months.** Please make sure you mark an answer in **all 3 columns** for each question.

How do symptoms or conditions in the following usually affect your	*Bladder or urine*	*Bowel or rectum*	*Vagina or pelvis*
1. Ability to do household chores (cooking, laundry housecleaning)?	☐Not at all ☐Somewhat ☐Moderately ☐Quite a bit	☐Not at all ☐Somewhat ☐Moderately ☐Quite a bit	☐Not at all ☐Somewhat ☐Moderately ☐Quite a bit
2. Ability to do physical activities such as walking, swimming, or other exercise?	☐Not at all ☐Somewhat ☐Moderately ☐Quite a bit	☐Not at all ☐Somewhat ☐Moderately ☐Quite a bit	☐Not at all ☐Somewhat ☐Moderately ☐Quite a bit
3. Entertainment activities such as going to a movie or concert?	☐Not at all ☐Somewhat ☐Moderately ☐Quite a bit	☐Not at all ☐Somewhat ☐Moderately ☐Quite a bit	☐Not at all ☐Somewhat ☐Moderately ☐Quite a bit
4. Ability to travel by car or bus for a distance greater than 30 minutes away from home?	☐Not at all ☐Somewhat ☐Moderately ☐Quite a bit	☐Not at all ☐Somewhat ☐Moderately ☐Quite a bit	☐Not at all ☐Somewhat ☐Moderately ☐Quite a bit
5. Participating in social activities outside your home?	☐Not at all ☐Somewhat ☐Moderately ☐Quite a bit	☐Not at all ☐Somewhat ☐Moderately ☐Quite a bit	☐Not at all ☐Somewhat ☐Moderately ☐Quite a bit
6. Emotional health (nervousness, depression, etc)?	☐Not at all ☐Somewhat ☐Moderately ☐Quite a bit	☐Not at all ☐Somewhat ☐Moderately ☐Quite a bit	☐Not at all ☐Somewhat ☐Moderately ☐Quite a bit
7. Feeling frustrated?	☐Not at all ☐Somewhat ☐Moderately ☐Quite a bit	☐Not at all ☐Somewhat ☐Moderately ☐Quite a bit	☐Not at all ☐Somewhat ☐Moderately ☐Quite a bit
Total =	x 100	x 100	x 100

Scoring the PFIQ-7:
All of the items use the following response scale:
0, Not at all; 1, somewhat; 2, moderately; 3, quite a bit

PFIQ-7 Score _____

Scales:
Urinary Impact Questionnaire (UIQ-7): 7 items under column heading "Bladder or urine"
Colorectal-Anal Impact questionnaire (CRAIQ-7): 7 items under column heading "Bowel / rectum"
Pelvic Organ Prolapse Impact Questionnaire (POPIQ-7): Items under column "Pelvis / Vagina"
Scale Scores: Obtain the mean value for all of the answered items within the corresponding scale (possible value 0 – 3) and then multiply by (100/3) to obtain the scale score (range 0-100). Missing items are dealt with by using the mean from answered items only.
PFIQ-7 Summary Score: Add the scores from the 3 scales together to obtain the summary score (range 0-300).

Patient Assessment (continued)

- Lumbosacral Screening
- Abdominal Tissue
- Visual Inspection of the Pelvic Floor
- External observation
- Internal Pelvic Floor Assessment

The P.E.R.F.E.C.T.

Scale	Measurement	Description
P	Power (strength)	Graded from O to 5
E	Endurance	Duration of time in seconds
R	# of Repetitions	Contract and then repeat
F	# of fast Contractions	Record # of 1-2 second MVCs
E	Every	
C	Contraction	
T	Timed	

Physical Therapy Treatment

- Supportive Dysfunction
  - Patient Education
  - Muscle re-education
  - Strengthening
- Hypertonia Dysfunction
  - Patient Education
  - Biofeedback
  - Soft Tissue Mobilization
  - Trigger Point Release
- Incoordination Dysfunction
  - Patient Education
  - Muscle re-education
- Visceral Dysfunction
  - Patient Education
  - Manual therapy techniques
  - Visceral mobilization
  - Postural education
  - Scar mobilization

Patient Diagnoses and Referrals

Appropriate Patients for Referral

- Stress/Urge/Mixed Incontinence
- Dysuria
- Endometriosis
- Prolapse
- Pelvic Surgeries
- Pelvic Cancer/Radiation
- Hernia Repair
- Bladder Sling
- Interstitial Cystitis

Appropriate Patients for Referral

- Dyspareunia
- Vaginismus
- Vulvadynia
- Post-partum
  - Vaginal Delivery and Cesarean Section
- Pudendal Nerve Compression
- SIJ pain
- Unspecified LBP
- Coccydynia

Diagnoses Not Appropriate

- Active infection
- Lymphaedema
- Osteoporosis
- Can’t follow instructions (cognitive deficits, etc.)

What to look/listen for

- Falls on: tailbone, hip, pelvis, low back
- SIJ dysfunction
- Recurrent yeast infections/UTIs
- Myofascial trigger points in the low back, abdominals, lower extremities and pelvic girdle
  - Primary referral source of pelvic pain

What to look/listen for

- Activities impaired by symptoms
  - Musculoskeletal dysfunction
    - Increases with stress
    - Does not typically respond to intervention focused on other symptoms
    - Often does not awaken the patient at night
- Irritation from underwear/tight clothing or complete intolerance of certain/all fabrics on the skin
- Situations where the skin is compressed (sitting)

Costs and Benefits of PT Intervention for Pelvic Floor Disorders

- Non-invasive approach
  - Patients are typically seen for 6-8 visits
- Decreased number of surgeries
- Up to 80% of patients with SUI can expect to be cured/improved by conservative PT intervention (Neuman, Grimmer, et al.)
- An RCT study of physiotherapy with pelvic floor training and biofeedback reported an objective cure rate of 67%

Questions?

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