

Physical Therapy for Sacroiliac Joint Dysfunction: Evaluation and Treatment

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Disclaimer

- Physical Therapy Consultant for SI-Bone/iFuse Implant System



Objectives

- To understand the symptoms and causes of Sacroiliac Joint Dysfunction (SIJD)
- To understand why the pelvic floor muscles are important in SIJD
- To increase knowledge of PT evaluation for SIJD
- To increase knowledge of importance of exercise progression with surgical and non-surgical SIJD treatment.



LBP vs SIJD

SIJD:

- Pain more often on **one side** with unilateral stance activities and sitting
- Pain in sleeping **with rolling**, not preventing falling asleep
- Intraabdominal pressure: if manually stabilize iliums, then symptoms should diminish with coughing
- **Rarely pain above L5**, usually: PSIS, buttocks, post thigh, genitals; Fortin's Sign
- History of **pelvic floor** dysfunction: urinary incontinence, constipation, straining with BMs, pressure/pain post BMs.
- Pain or pressure in abdomen, rectum, scrotum, or vagina during or after intercourse



References: 2,3,7-12

Causes of SIJ Dysfunction

- | | |
|---|---|
| <ul style="list-style-type: none"> • Trauma: <ul style="list-style-type: none"> ◦ MVA or crush injury ◦ Fall onto buttocks ◦ Step off curb ◦ Overzealous kick/golf swing ◦ Repetitive activities ◦ Lift/twist maneuver • Pathological: <ul style="list-style-type: none"> ◦ OA/RA ◦ Osteoporosis ◦ Previous SI/lumbar sx • Gait abnormalities | <ul style="list-style-type: none"> • Biomechanical: <ul style="list-style-type: none"> ◦ Leg Length Discrepancy (LLD) ◦ Scoliosis ◦ Muscles/Fascia ◦ Ligaments ◦ Pelvic Floor/Obturator Internus Dysfunction • Pregnancy <ul style="list-style-type: none"> ◦ Child Birth ◦ Relaxin ◦ Weight gain/BOS shift |
|---|---|



References: 1, 2, 5, 7-13

Muscles Contributing to SIJ Function

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|---|--|
| <ul style="list-style-type: none"> • Trunk: <ul style="list-style-type: none"> ◦ Transversus Abdominis (TA) ◦ Internal Oblique ◦ Multifidus ◦ Gluteals (max, med) ◦ Quadratus Lumborum ◦ Latissimus Dorsi ◦ External Oblique ◦ Rectus | <ul style="list-style-type: none"> • Lower Extremity: <ul style="list-style-type: none"> ◦ Adductors ◦ Abductors ◦ Hamstrings ◦ Iliopsoas ◦ Quads • Pelvic Floor <ul style="list-style-type: none"> ◦ <i>Obturator Internus</i> ◦ <i>Piriformis</i> ◦ Coccygeus ◦ Levator Ani |
|---|--|

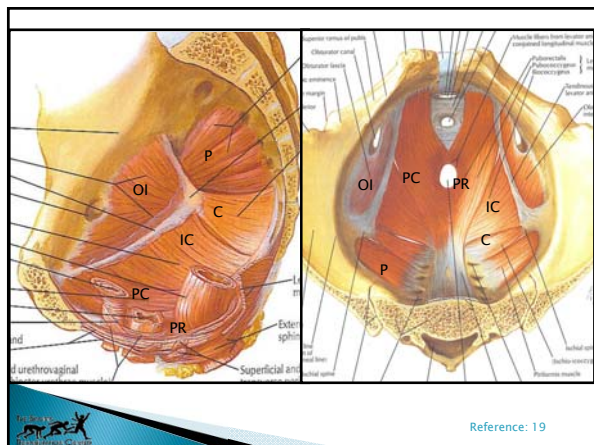


References: 14-17

Pelvic Floor

- Levator Ani and Coccygeus
 - Levator Ani: Pubococcygeus, iliococcygeus, puborectalis, (pubovaginalis)
 - General roles: support, continence, intercourse, childbirth in females
 - Main role in SIJ: Constant activity closes the pelvic outlet, supports pelvic organs, and prevents strain on ligaments and fascia in pelvis.
- Obturator Internus:
 - ER and ABD femur
 - Referred symptoms: abdominal pressure; buttocks, genital, post thigh, hip pain
- Piriformis:
 - ER and ABD femur
 - Referred pain: buttocks, PSIS, post thigh, post calf

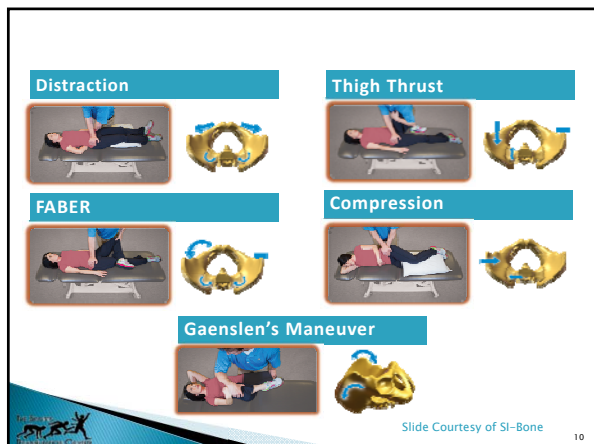
References: 5,10-12,16,18

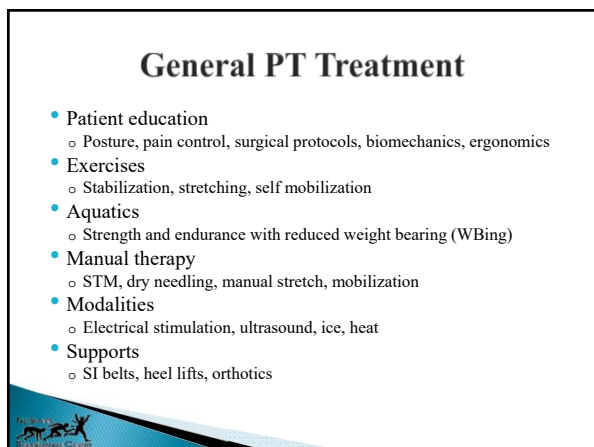


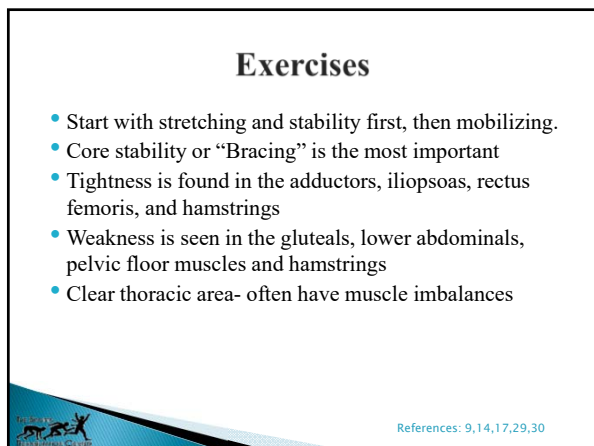
Special Tests

- Over 30 Special Tests for SIJD
- 5 SIJ Tests for Instability with most sensitivity and specificity:
 - Distraction
 - Thigh Thrust
 - FABERS
 - Compression
 - Gaenslen's Manuever

References: 8,9,15,20-23,27,28







Manual Therapy

- To reduce pain and correct biomechanical alterations
- STM and manual stretch to involved muscles that are tight or in spasm
 - Internal to pelvic floor muscles, including obturator internus
- Should increase ROM and stability prior to mobilizing the iliums or sacrums- helps to maintain the correction.
- Dry needling
 - solid filament needles are placed into the trigger point



References: 10,11,14,33,37

Supports

- SI belts
 - To provide external stabilization, compression, and proprioception feedback
 - Worn below ASIS, across sacrum
 - Donned in supine, not standing



References: 9,14,38

Surgical Fusion

- If stay in hospital, recommend PT in hospital for education and initial exercises: isometrics, ROM, UE exercises
- Ideal to start outpatient within 3 weeks of surgery
 - Improved outcomes: reinforced education/instructions, greater chance of full return to PLOF, pain control, reduced scar tissue/restrictions, earlier/greater ROM/strength gains, and reduced substitutions/bad habits.
- **With ALL Surgery, therapists need to know approach, hardware used, and WBing restrictions.**



References: 5,32,34

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