



CASE STUDY

Assessing Hip and Back Pain in a Postpartum Female

Overview

THE WHO

32-year old female, postpartum

THE WHAT

Right hip and low back pain after second pregnancy

This individual was experiencing chronic right hip and low back pain, and had trouble sitting for extended periods of time. They were unable to walk more than 0.75 miles without sharp pain in the area, and couldn't lay on their right side to sleep due to hip pain. The right glute was very tight and sore to touch.

Conservative management via physical therapy, massage, and self-care mechanisms did not produce the desired improvement, and was not effective at reducing pain over many months of treatment.

The Springbok Scan

Asymmetry Profile

Muscles with the greatest volumetric differences between legs were identified below.



Muscle Groups

Left

Right

Hip External Rotators
Hip Extensors

Individual Muscles

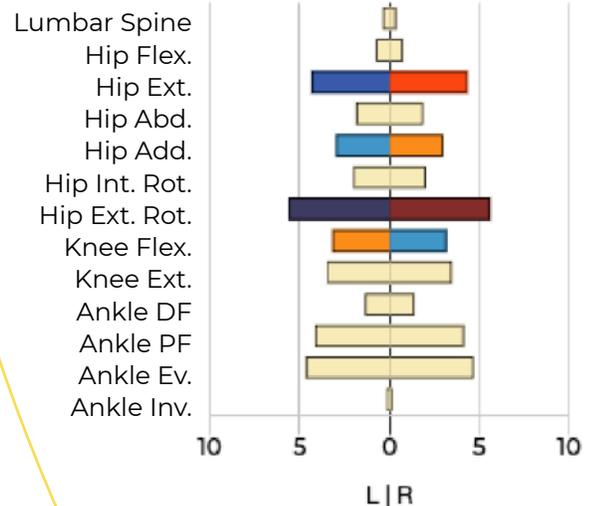
Left

Right

Iliacus
Adductor Brevis
Gracilis
Multifidus

Gluteus Maximus

L-R Asymmetry (%)



The Results

ASYMMETRY

Notable asymmetry in the hip external rotators, hip extensors, and hip adductors, all of which are larger on the left leg. Gluteus maximus is the most asymmetric muscle.

DEVELOPMENT

Low development scores bilaterally in the hip flexors, hip adductors, ankle dorsiflexors, and quadriceps muscles. Low development in the right gluteus maximus, which is driving the asymmetry of this muscle.

SUPPLEMENTAL FINDINGS

Imbalanced multifidus. Research has linked multifidi imbalance and underdevelopment with low back pain.

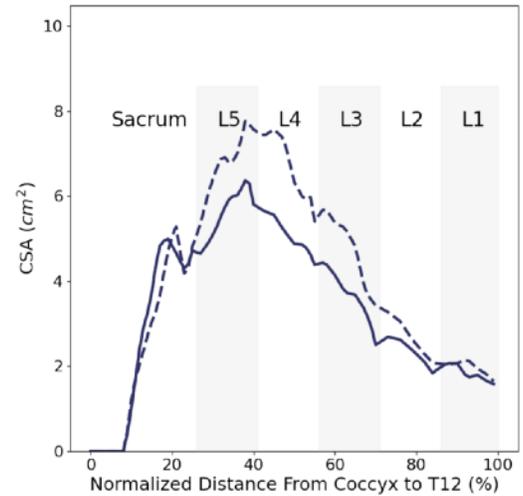
“Patients with higher lumbar multifidus muscle quality reported lower levels of low back pain-related disability and leg pain intensity, indicating that muscle quality may play a role in the etiology of lumbar spine disorders.”¹

The Recommendations

The Springbok scan quantified the right glute asymmetry, which was consistent with poor strength. The left multifidi weakness led the clinician to look at left lumbar spine as an area needing stability.

The training program for this patient was changed to focus first on lumbar spine stabilization, and then to focus on strengthening the right glute, and finally the entire body.

Multifidi Imbalance:



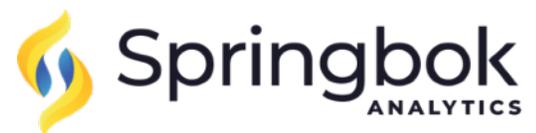
The Outcome

VALIDATED PAIN AND ASYMMETRY

The Springbok scan confirmed the imbalance between left-right muscular composition, and with the gluteus maximus in particular.

PERSONALIZED RECOVERY

The Springbok Scan provided the patient and clinician with a more personalized understanding of the issue and pinpointed the multifidi as a key area to focus on first



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Let's talk about improving muscle health, performance and longevity.



¹ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10237427/#:~:text=Patients%20with%20higher%20lumbar%20multifidus,etiology%20of%20lumbar%20spine%20disorders.>