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RAPID RESEARCH

February 2021

Inside This Week: It's All In the Hips

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- ✓ MRI Findings in Asymptomatic Hips

 - ✓ Exercise Approaches to Femoroacetabular Impingement Syndrome (FAIS)

 - ✓ Gluteus Maximus Activation during Common Strength Exercises



MRI FINDINGS IN HIPS WITH NO PAIN

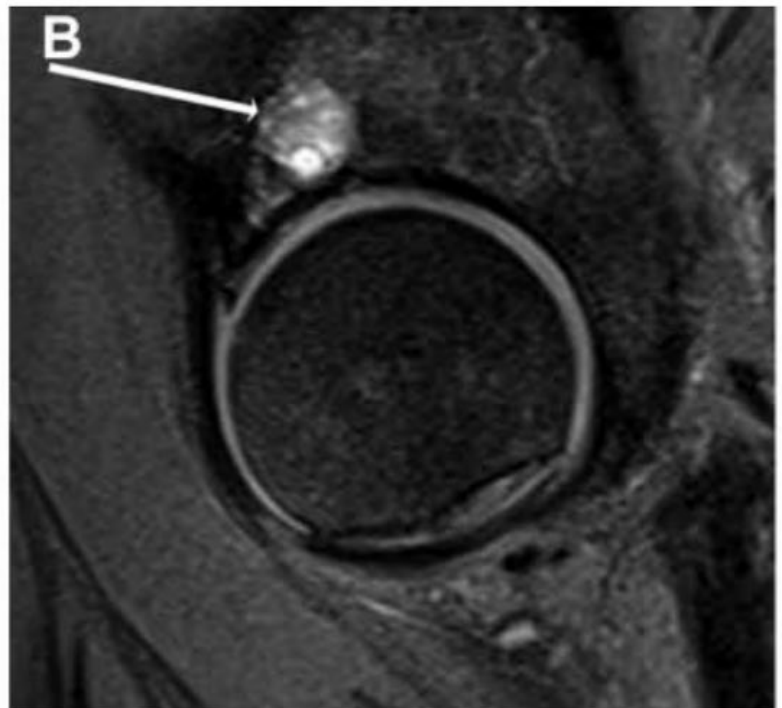
Current indications for hip surgery are being diagnosed with increasing frequency.

This research assessed asymptomatic people to determine the prevalence of hip lesions without symptoms of pain,

Labral Tear



Cyst



KEY FINDINGS

The following abnormalities were found in **PAIN-FREE Hips**:

Labral tears, 69% of hips.

Chondral defects, 24%.

Labral/paralabral cysts, 13%.

Acetabular bone edema, 11%.

Fibrocystic changes of the head/neck junction, 22%.

Rim fractures, 11%.

Subchondral cysts, 16%.

Osseous bumps, 20%.

Ligamentum teres tears, 2.2%.

Those older than 35 years were 13.7x more likely to have a chondral defect and 16.7x more likely to have a subchondral cyst.

Males were 8.5x more likely to have an osseous bump than females.

MAIN TAKEAWAYS

MRI of asymptomatic participants revealed **abnormalities** in **73%** of hips.

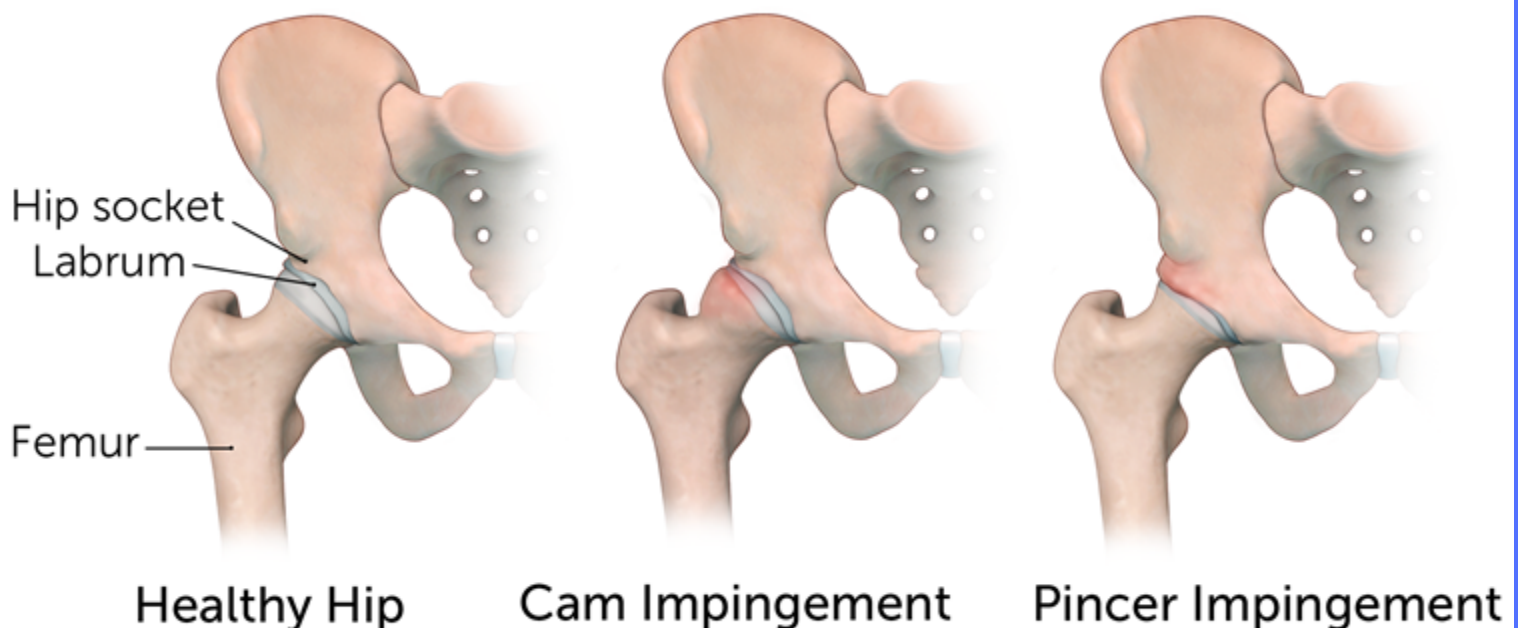
Labral tears being identified in **69%** of the joints.

A strong correlation existed with **age and early markers of cartilage degeneration**.

MRI's DO NOT tell the whole story.

EXERCISE APPROACHES TO FEMOROACETABULAR IMPINGEMENT SYNDROME (FAIS)

This article presented an overview of FAIS, including common diagnostic strategies, and commonalities in therapeutic approaches between nonoperative and postoperative rehabilitation for the treatment and management of patients with FAIS.



KEY FINDINGS

Rehab protocols for femoroacetabular impingement syndrome align in 4 central exercise goals:

Postural positioning, core strength, hip strength & motor control, and functional range of motion.

The ability to stabilize the pelvis ensures **hip alignment within the framework of the acetabulum.**

Patient care relies on the practitioner's ability to **individualize programming to specific desired outcomes.**

The goal of management should be to **restore pain-free movement** and correct functional deficits.

MAIN TAKEAWAYS

Nonoperative and surgical approaches revolve around the same goal: to **return to the pre-injury or sport-performance level.**

In 6 weeks, some successful outcomes could include:

Pain levels at 0 - 2/10.

Able to walk on varied terrain.

Jog for at least 30 minutes.

Complete sport-specific tasks that involve cutting, jumping, and pivoting.

FAIS rehab is multi-faceted and requires addressing the 4 central exercise goals.

GLUTEUS MAXIMUS ACTIVATION DURING COMMON STRENGTH EXERCISES:

This systematic review looked at current research to find different Glue Max activation levels during strength exercises that incorporate hip extension and use of external load.



Gluteus Maximus



Gluteus Medius

KEY FINDINGS

VERY HIGH level of GMax activation

(>60% Max Voluntary Isometric Contraction):

Step-up.

Lateral step-up.

Diagonal step-up.

Cross over step-up.

Hex bar deadlift.

Rotational barbell hip thrust.

Traditional barbell hip thrust.

Banded hip thrust

American barbell hip thrust.

Belt squat.

Split squat.

In-line lunge.

Traditional lunge.

Pull barbell hip thrust.

Modified single-leg squat.

Conventional deadlift

MAIN TAKEAWAYS

Several exercises could induce very high levels of GMax activation.

The step-up exercise and its variations present the highest levels of GMax activation.

The results of this systematic review may assist practitioners in selecting exercised for strengthening GMax

EXAMPLE EXERCISES

Follow the button below to see a few example exercises from the above list.

Hip Exercises

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