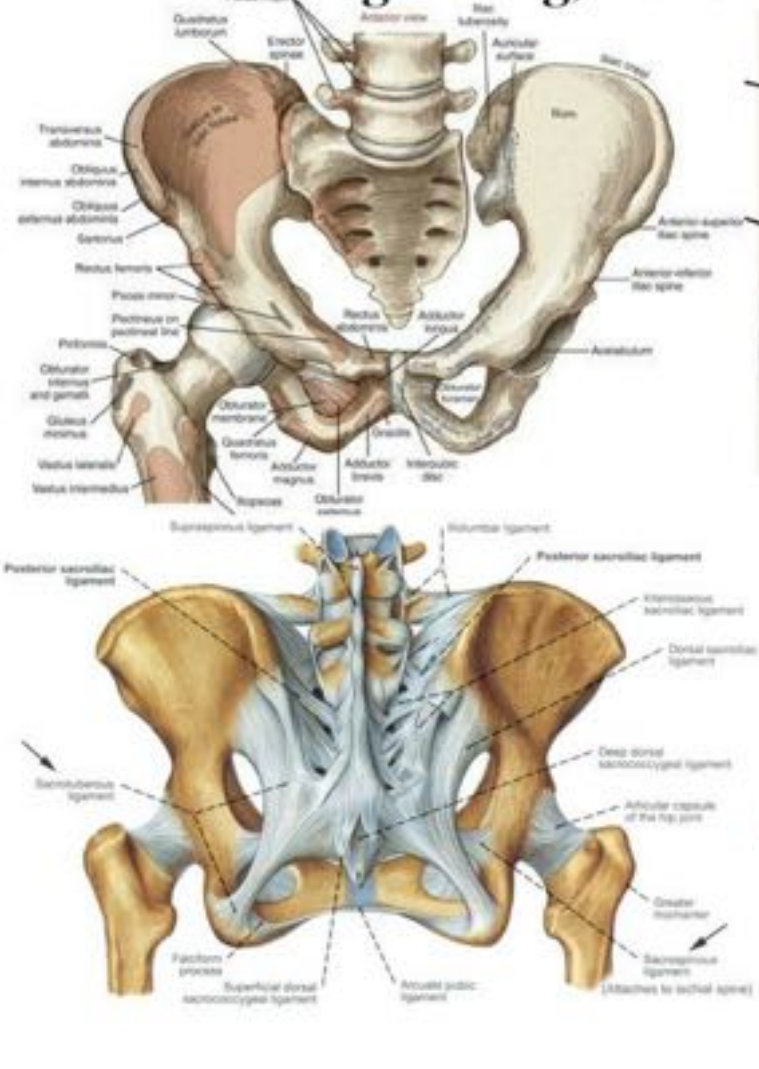
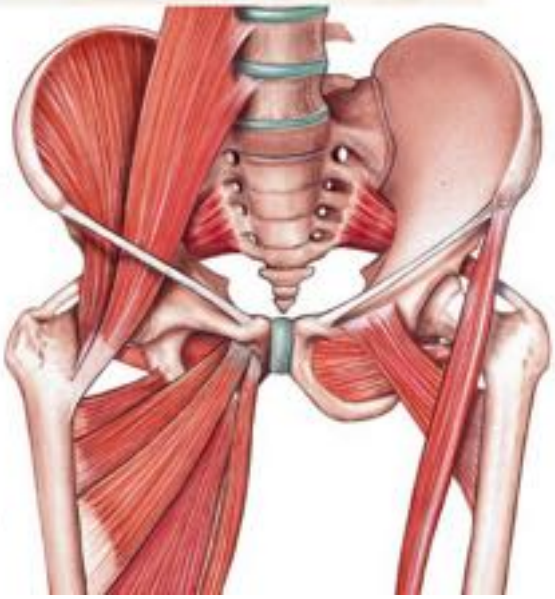
28 Days of Hips

Anatomy, Assessments, Mobility, Strengthening, Pathology, Programming





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INTRODUCTION

Welcome to the 28 days of hip series. This series was inspired for a few reasons:

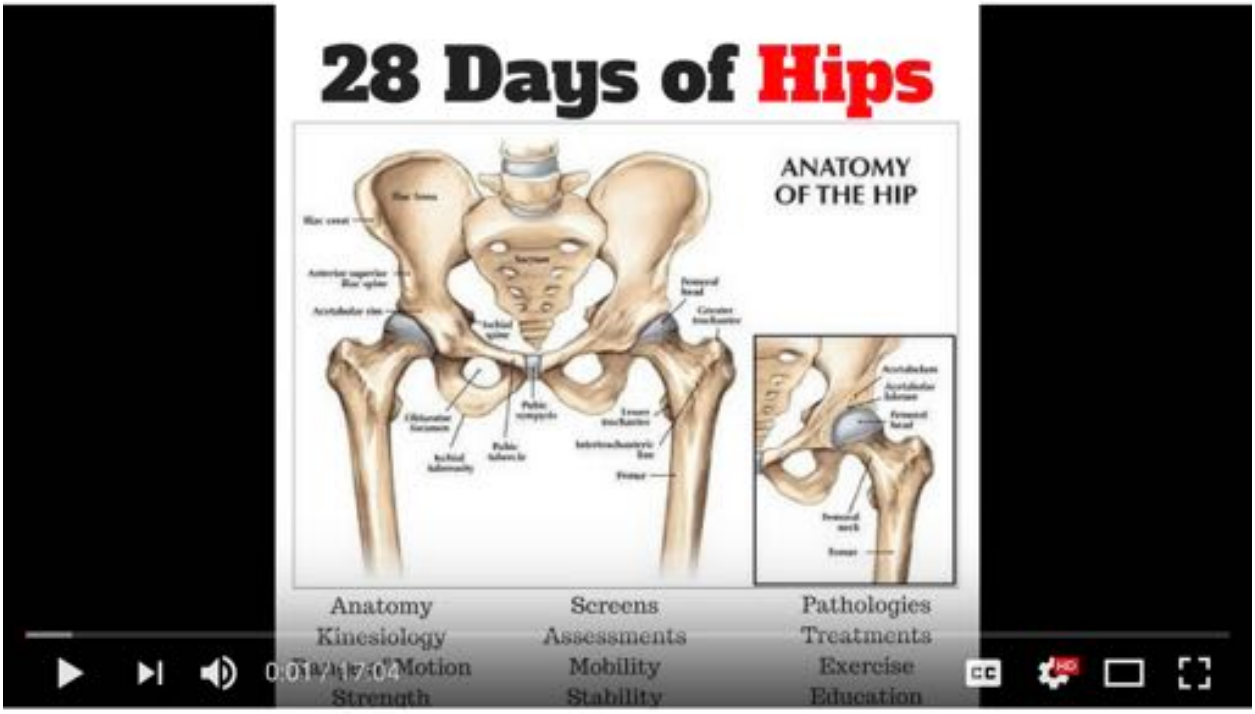
1. The hip can be very overwhelming for both people dealing with issues pertaining to it, and those treating it.
2. The area we receive the most common questions relate to the structures of the hip.
3. The more we can compile expert information (which is sound and supported by evidence) the better.

Below you will find the commentary and photos of each post, with links to any videos, and single youtube video link that will take you a video that culminates all the posts in one.

I'd like to thank all of the people who contributed and helped bring this together:

- Dr. Tom Walters of RehabScience - https://www.instagram.com/rehabscience/
- Jason LePage of Primephysiofitness - https://www.instagram.com/primephysiofitness/
- Dr. Adam McCluskey of ThePTinitiative - https://www.instagram.com/theptinitiative/
- Dr. Nicole Surdyka - https://www.instagram.com/dr.nicolept/
- Dr. Tony Comella - https://www.instagram.com/tony.comella/
- Dr. Marc Surdyka - https://www.instagram.com/dr.surdykapt/
- Chris Butler of CATZ Physical Therapy - https://www.instagram.com/cbutlersportspt/
- Dr. Jarod Hall - https://www.instagram.com/drjarodhalldpt/
- Dr. Teddy Willsey of Healthy Baller PT - https://www.instagram.com/strengthcoachtherapy/
- Firmansyah Purwanto of Movement Pain PT - https://www.instagram.com/movementpainpt/
- Dr. Zach Long of The Barbell Physio - https://www.instagram.com/thebarbellphysio/
- Hamish Vickerman - https://www.instagram.com/hamishthephysio/
- Travis Pollen of Fitness Pollenator - https://www.instagram.com/fitness_pollenator/
- Dr. Zak Gabor of Level Up Initiative - https://www.instagram.com/simplestrengthphysio/
- Marcus Filly of Functional Bodybuilding - https://www.instagram.com/functional.bodybuilding/
- Dr. Jacob Harden - https://www.instagram.com/dr.jacob.harden/
- Dr. Bret Contreras of The Glute Lab - https://www.instagram.com/bretcontreras1/

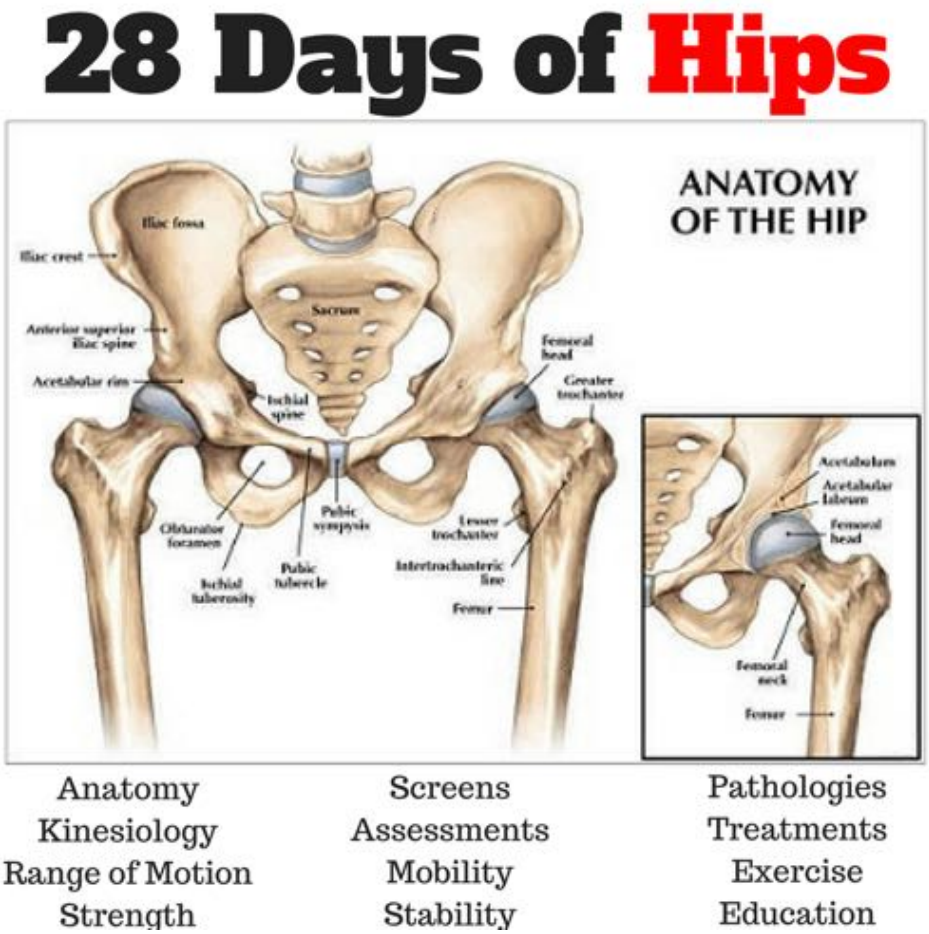
COMPILATION VIDEO



28 Days of Hips

https://youtu.be/r57nZ_UUFEk

DAY 1



Anatomy	Screens	Pathologies
Kinesiology	Assessments	Treatments
Range of Motion	Mobility	Exercise
Strength	Stability	Education

https://www.instagram.com/p/BeqshcFjd4X/?taken-by=thestrengththerapist

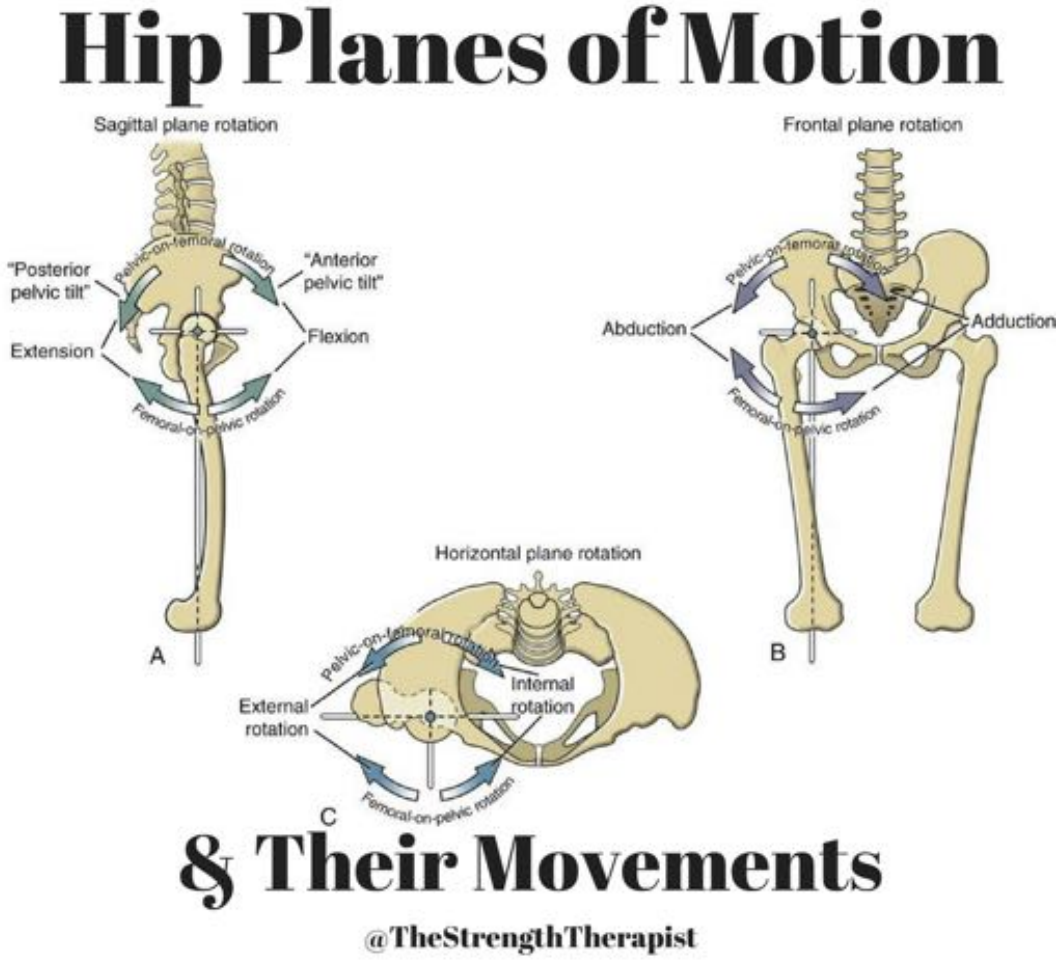
Over the next 28 days (month of February) we will be exploring this hip! I've teamed up with a stacked group of really smart people covering rehab and strength & conditioning. I'm very excited for this little project as one of the most commonly requested areas for me to cover is hips.
For the next 28 days we will cover anatomy, kinesiology, range of motion, strength, screens, assessments, mobility, stability, pathologies of various kinds, treatments for those pathologies and many more, exercise tutorials, and education on so damn much. It's going to be a jam packed month for you, so click on the 3 dots in our profile and turn on notifications so you can stay up to date.
At the end of this journey we are going to compile all of the posts into one e-book that will have any photo's directly in it or any videos linked for easier watching, along with all of the commentary.
This book will offer a good resource for clinicians to give it for general questions, and help many people increase their knowledge about this incredible joint.

DAY 2

https://www.instagram.com/p/BetT_CWDzrm/?taken-by=thestrengththerapist

HIP JOINT ARCHITECTURE from @rehabscience ----------
The hip joint is a diaarthrodial (freely movable) or synovial ball and socket joint that involves an articulation between the head of the femur and the acetabulum.
.
Compared to the shoulder (another ball and socket joint), the hip is considerably deeper and has an array of dense, strong connective tissue structures (ligaments, capsule and labrum). For this reason, hip laxity and subsequent subluxations or dislocations are uncommon except in very high force collisions such as automobile accidents.
.
Orthopedic pathologies common to the hip include labral tears (a tear can be seen in the labrum of this cadaver specimen), femoracetabular impingement, gluteal and iliopsoas tendinopathy, fractures and bursitis.

DAY 3



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Hip Planes of Motions & Their Movements

As we previously discussed, the hip is a ball and socket joint which allows for a great degree of motion. These movements occur in three primary planes - sagittal (forward and back stuff), frontal (side to side stuff), and horizontal/transverse (rotational stuff). In the sagittal plane we have hip flexion (bringing the knee and hip closer together) and hip extension (pushing the knee away from the hip). In the frontal plane we have hip adduction (bringing the legs together) and hip abduction (taking the legs apart). In the horizontal plane we have internal rotation (turning the knee in) and external rotation (turning the knee out). These movements can be combined to allow for a wide range of variability.

The degree of range you as an individual have in each will depend upon many factors - which will get discussed in coming days.

DAY 4

https://www.instagram.com/p/BeyGFWRjNPj/?taken-by=thestrengththerapist

Hip ROM Assessment from @primephysiofitness .
🔹In the first few days of the series, we saw the structure of the hip joint and talked about planes of motion the hip moves through. To build upon our knowledge, this is a passive hip range of motion (ROM) assessment whereby the hip is brought through various ranges/degrees of sagittal, frontal, and transverse plane movements. This is a simple assessment I like using that can be used to:

1⃣Get an understanding of one's unique hip anatomy.

2⃣Finding a position of comfort for one to move through deeper ranges of hip flexion for exercises, such as squats.
Just because we can keep it simple doesn't mean we don't have a thorough understanding and

appreciation of what's actually going on. Let's dive deeper.

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🔶There can be loads of variety in the ball and socket anatomy of an individual's hip joint. The ball may sit deep in the socket, or maybe the socket is more shallow. The neck of the femur may be rotated forward (excessive anteversion), backward (retroversion), or even angled higher or lower (angle of inclination). But the reality is without some type of imaging, there's really no way to know what exactly is going on in there.

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🔷But by knowing all this information about the anatomical variations, this assessment allows us to have that appreciation of one's unique anatomy and find out where their hip is most comfortable in certain positions. Play around with different angles of flexion and rotations, flexion and abduction, maybe some adduction. Ask the person what feels good to them! Everyone is going to be subtly different making them unique.

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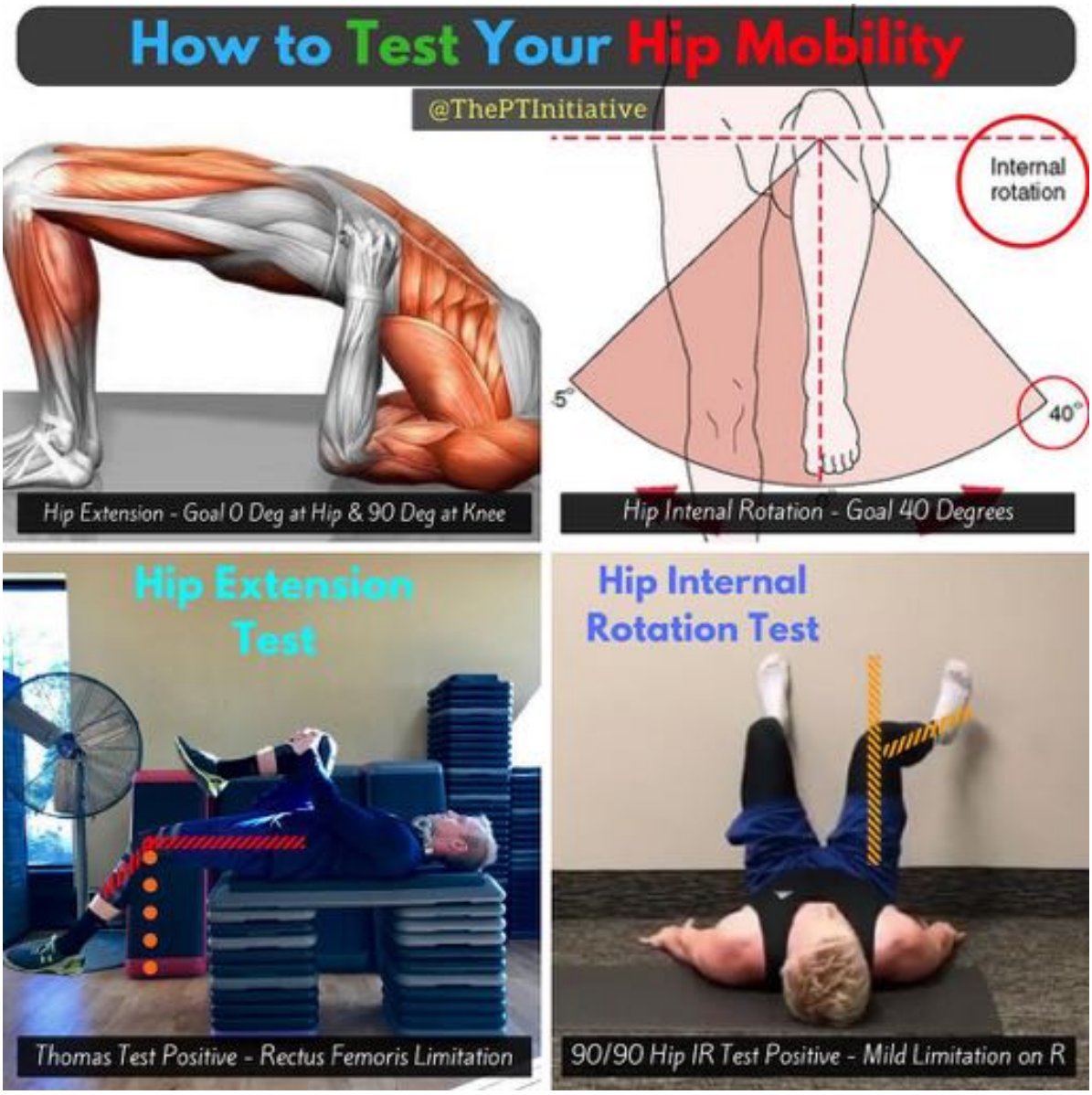
🔶Take the results of this assessment and apply them to the person and the exercise you are performing. If we go back to our squat example and we see someone achieves better hip flexion with abduction and some external rotation (as we see with this assessment), let them squat with a wide stance and toes out. Maybe they get the best hip flexion with no abduction and no rotation, let them squat narrow and toes forward. There's no one-size-fits-all for everyone with this assessment!

DAY 5

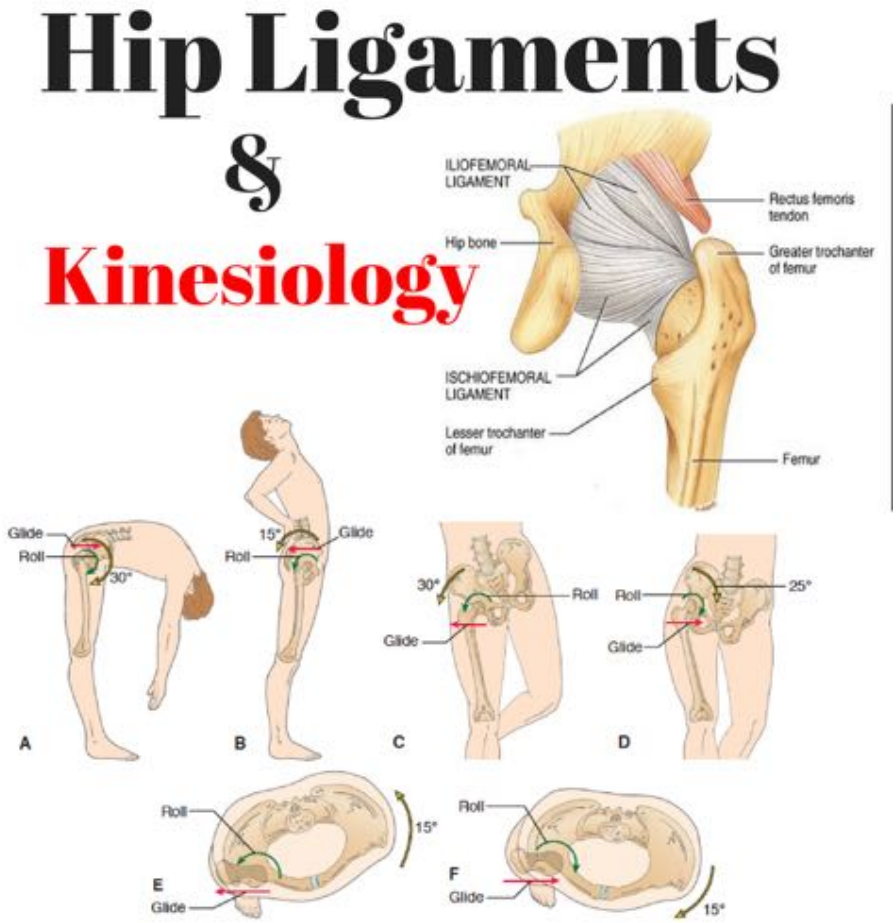


https://www.instagram.com/p/Be0-zzIj7Rr/?taken-by=thestrengththerapist

Think you have tight hips? Learn how to test your own hip mobility!...
Two of the more common limitations in hip mobility I see are hip extension and hip internal rotation. Having adequate range of motion in both of these movements is important for good form with compound exercises like squats and lunges.
—-
The picture on the left is showing a Thomas Test, which tests for hip flexor tightness... which in turn can determine how much hip extension range of motion you have.
This test also helps show if your iliopsoas, rectus femoris (a quad muscle), or both is your primary

limiter.
You should be able to get your thigh parallel to the table with your knee flexed to 90 degrees. If not, there is likely some hip flexor tightness limiting your overall hip mobility.
—
The bottom right picture is showing a quick test for your hip internal rotation range of motion. You should be able to reach about 40 degrees here.
Having limitations in hip internal rotation can negatively affect your squat form and depth.
—-
Give these hip mobility tests a try and let me know how you do!

DAY 6



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We've got a packed month, so we are covering two topics today!
The hip is one of the more stable joints in our body due to the structure of the bones, ligaments, and muscles attaching to it. We previously examined the general structure of the hip with the video from @Rehabscience and briefly looked at the labrum in it. Today we are looking more at the ligaments of the hip. The main ligaments of the hip are the iliofemoral ligament, pubofemoral ligament, ischiofemoral ligament, ligaementum teres, and the labrum.
The iliofemoral ligament connects the pelvis to the femoral head on the front side of the joint, limiting hyper-extension. The pubofemoral ligament connects the pubis to the femur and limits hyper-abduction. The ischofemoral ligament connects the ischium with the femur and merges with the joint capsule and limits internal rotation of the hip. The ligaments teres connects the femoral head to the acetabulum and allows for blood supply to be delivered to the femoral head. The acetabular labrum deepens the cavity, improves the stability, and adds passive support to the joint.

DAY 7

https://www.instagram.com/p/Be6DAGsjytJ/?taken-by=thestrengththerapist

In today's segment of our month on hips we have @dr.nicolept bringing in our first treatment for on hip range of motion!

For many people there can be a discrepancy between the amount of motion they can achieve in their joints passively vs what they can perform actively. .
If you look at the picture on the top vs the picture in the middle, you can see that there is much more

passive external rotation range in the hip than there is active range. This means that all the extra range achieved passively is nearly useless since it cannot be called upon during active tasks.

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One way to help improve the active range is through one of the Functional Range Conditioning (FRC) techniques, PAILs and RAILs (Progressive and Regressive Angular Isometric Loading).

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To begin, sit in the 90/90 position shown in the video. Next, take a deep breath in and then begin the process of irradiation by bringing tension throughout your body (contracting all your muscles) on a gradual ramp up to the desired amount of tension. If you're looking to just get started with some active mobility work for a warm-up, maybe ramp up to 20% max effort. If you are looking to really strengthen with this exercise and push a little more, try ramping up the contraction to 60-80% of your max effort. .

Once you have achieved the desired amount of tension, push the ankle and knee of the front leg down into the floor and hold isometrically for the desired amount of time (usually 3-5 seconds).

.

While maintaining the same amount of tension in the body, stop pushing into the ground and now start to actively pull your chest down over the front thigh and hold at the end of the available range. This is the Regressive Angular Isometric Loading portion.

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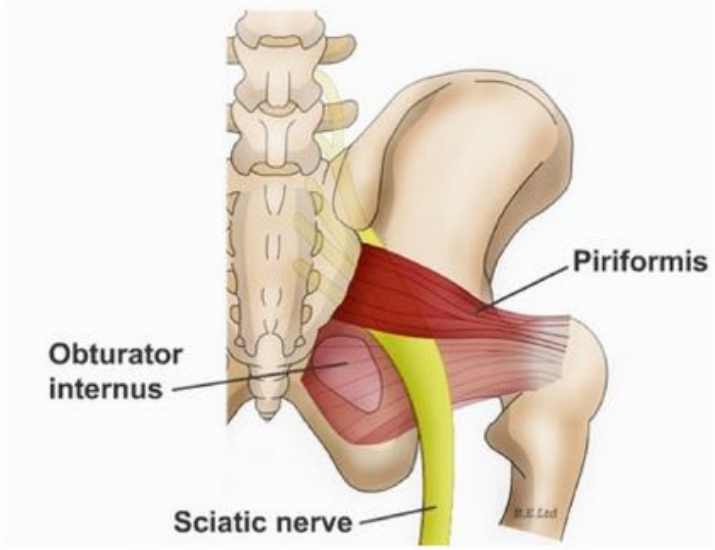
You can repeat this multiple times until you get to the end of this new active range.

DAY 8

Piriformis Syndrome Treatment



Positional Changes
Strengthen Trunk

Strengthen Hips
Activity Modification

Hip Extension

Hip External Rotation

Hip Abduction

https://www.instagram.com/p/Be8zFd1jj8U/?taken-by=thestrengththerapist

Piriformis Syndrome

Much like many of our orthopedic diagnosis, piriformis syndrome is a catch all term, generally referencing a range of symptoms that encompass - pain, tingling, numbness in the buttock region, pain after sitting, climbing stairs, walking, radiating symptoms down the leg coming from the buttock, etc.

While many point to the piriformis muscle irritating the sciatic nerve as the cause of this, it is unsure if this is an accurate.

Regardless, the actual treatment for this host of symptoms is generally the same - alter activities and change positions that bother it while also strengthening the hip and trunk. By modifying activities we can decrease the irritation to the tissues (might be more than sciatic nerve) and give it time to settle down - this might look like side stepping up stairs for a brief period of time or limiting running volume. Through position changes - such as changing how you sit in the car/desk more frequently - we shift stress to different tissues and can decrease how much stress goes through the irritated tissues. As we strengthen the hips, we can make the tissues have a higher capacity, making it more difficult to get irritated. Finally, strengthening the trunk will provide a more stable region that help to take on some stress during activities and relieve the irritated region. These should be the bulk of your focus, adding in other things like foam rolling the area if you find benefit from it.

Athlete - @squatsnespressoshots

DAY 9

Hip Flexor Strength

1 OF 4:

SUPINE W/ ISOMETRIC HOLD

https://www.instagram.com/p/Be_VO-6DbNJ/?taken-by=thestrengththerapist

HIP FLEXOR STRENGTH with @tony.comella for our hip series!
—
The next 2 posts are going to cover various exercises to strengthen your hip flexors. .
In part 1, we will discuss the rational to why strengthening may be a better option then stretching your “tight” hip flexors.
—
Hip flexors are frequently described as being tight and therefore prescribed stretching as a remedy. Unfortunately this is not the answer for everyone. Sometimes, you are not actually tight, but rather perceive a sensation of tightness. If your nervous determines your hip flexor is unable to control hip movement appropriately, it will result in increased tension/tone. In short, you lack appropriate strength in the muscle.
—
Instead of stretching, try loading and strengthening the muscle. By improving the strength of the hip flexor, the perception of tightness often fades away.
—
The video above demonstrates a few options to strengthen the hip flexors using a mini band. These variations on your back are good starting positions. Next post will demonstrate some more challenging positions, and describe the importance of hip flexor strengthening for performance and rehab.

DAY 10

Hip Flexor Strength

1 OF 4:

PLANK W/ ISOMETRIC HOLDS

https://www.instagram.com/p/BfCGLb4DtDd/?taken-by=thestrengththerapist

HIP FLEXOR STRENGTH with @tony.comella —
In part 1, we discussed strengthening vs stretching the hip flexors.
.
In part 2, we will discuss the importance of strengthening the hip flexors for performance and rehabilitation. —
Performance: We frequently train our glutes, hamstrings, and quads, but the hip flexors are often neglected. Training hip flexor strength can have tremendous benefits for athletes, runners, cyclists, and powerlifters (enhance squat and deadlift). Furthermore, increasing hip flexor strength has been shown to improve sprint speed and vertical jump performance.

—

Rehab: When a patient presents with hip flexor tendinopathy, they often have a desire to stretch or roll the hips in order to alleviate their pain. Unfortunately, these methods produce compression and should be avoided. Instead, we should focus on loading the tendon (there is strong evidence to support loading strategies for treatment of tendinopathies). Start with isometrics and progress to movement as tolerated.

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Note: Isometrics have multiple benefits, including an analgesic effect (pain reduction), reducing perceived tightness, and strength development.

—

Videos above review hip flexor isometric holds and marching in plank position and standing. Standing is typically the hardest of all the positions. Stick to a lighter mini-band, as these movements are typically challenging enough

DAY 11

https://www.instagram.com/p/BfEb7n8DgWA/?taken-by=thestrengththerapist

IT BAND PAIN with @dr.surdykapt

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Traditionally, IT Band Pain was thought to be a “friction syndrome” caused by repetitive flexion and extension of the knee (most common in runners). It was believed that this motion would cause the IT Band to move forward and backward over the lateral portion of the femur and cause inflammation. However, this notion is unlikely based on previous research and the firm attachments of the IT Band to different aspects of the knee (see bottom left picture).

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Although the exact etiology is not completely understood, increased compressive and tensile loading, especially during running, may play role in that lateral knee pain. So what can be done?

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1⃣Address Training Load - This might be the most common reason I see people with IT Band pain.

If you've consistently been running 10 miles per week, but suddenly start running 20 miles per week, it's likely not the fault of your shoes or "pronated" left foot. You likely did a little too much, a little too soon, and need to build up your mileage appropriately. Train harder AND smarter.

.

2⃣Improve the strength and motor control of the trunk and hip - the exercises above are some of my favorites for runners. Together, they address balance, acceleration, deceleration, motor control, and strength.

🔶Side Plank

- Level 1: Bottom knee down
- Level 2: Both legs straight
- Level 3: Top leg up

🔷Standing Fire Hydrant

- Level 1: No band
- Level 2: With band
- Level 3: Deeper squat

🔶Reverse Lunge

- Level 1: Reverse lunge
- Level 2: Add knee drive
- Level 3: Add heel raise

🔷Single Leg Bound

- Level 1: Right leg to left leg
- Level 2: Both legs to one leg
- Level 3: Left leg to left leg

.

I generally like to have people start with higher repetitions or longer hold times for 2-3x/week and progress from there.

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Questions or comments? 👇

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Flato R, Passanante GJ, Skalski MR, et al. (2017) The iliotibial tract: imaging, anatomy, injuries, and other pathology. Skel Radiol 46, 605–622.

.

Aderem J and Louw QA. Biomechanical risk factors associated with iliotibial band syndrome in runners: a systematic review. BMC Musculoskeletal Disorders. 2015.

DAY 12

https://www.instagram.com/p/BfG_1FcDAU1/?taken-by=thestrengththerapist

FAI with @cbutlersportspt

Femoroacetabular Impingement (FAI) is abnormal contact between the femoral head and acetabulum, which can cause hip pain, labrum, and/or cartilage damage. There are three different types of FAI's: Cam, Pincer, and mixed. Cam impingement lesions are more prevalent in younger males than in females. Pincer lesions are more common in middle aged, active women. A study by Tannast et al. found that 86% of patients have a combination of both cam and pincer impingement.

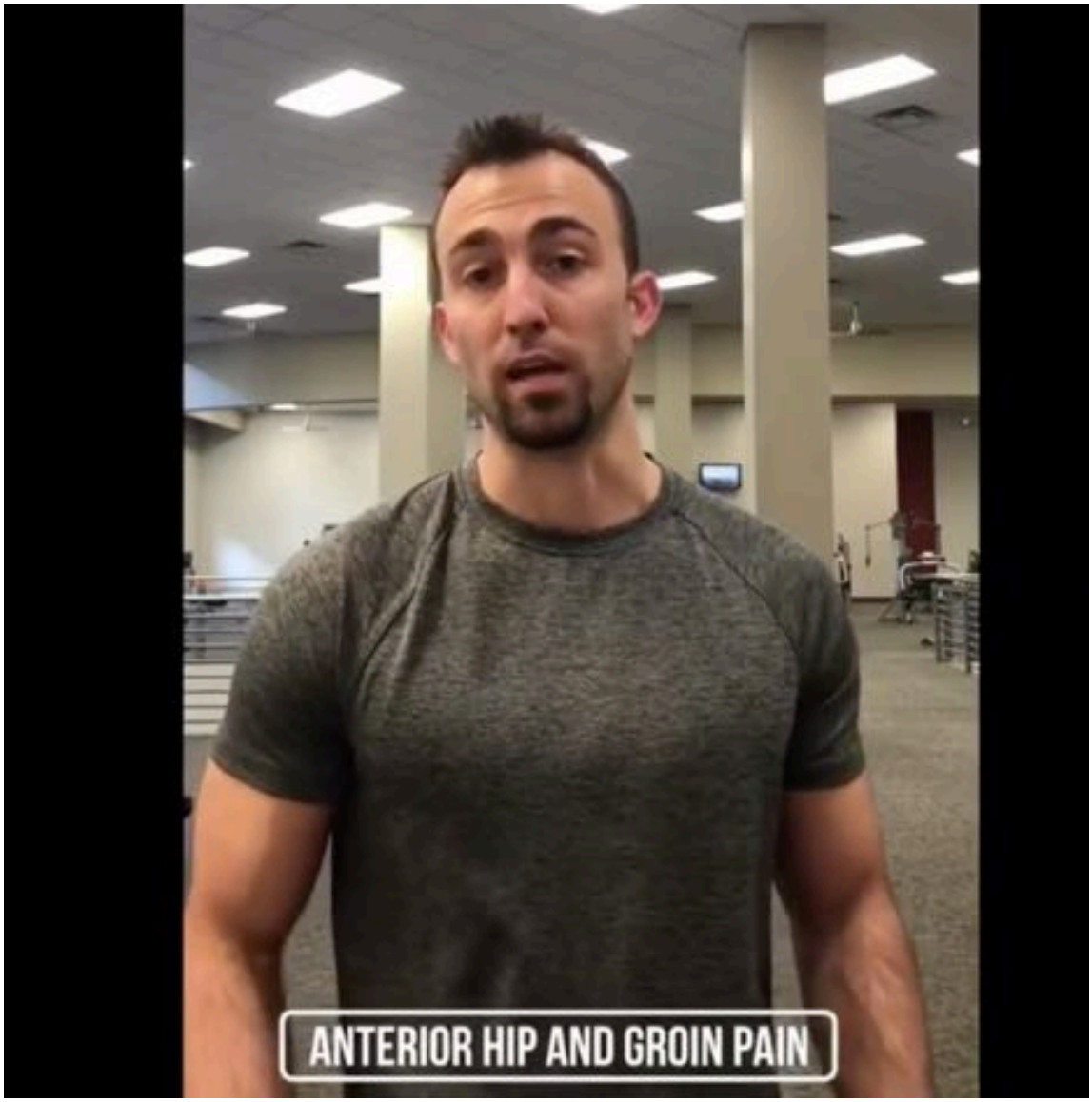
Clinical Presentation

- Anterior or anterolateral hip/groin pain
- Stiffness
- Painful hip flexion past 90º and internal rotation
- Pain with prolonged sitting

What Physical Therapy can do?

The goal of physical therapy is to increase range of motion, increase strength, and decrease pain in order to maximize function and return to your prior level of function. Surgery should only be considered when conservative treatments do not control symptoms or functional limitations are unacceptable.

DAY 13



https://www.instagram.com/p/BfJpjeaj5ws/?taken-by=thestrengththerapist

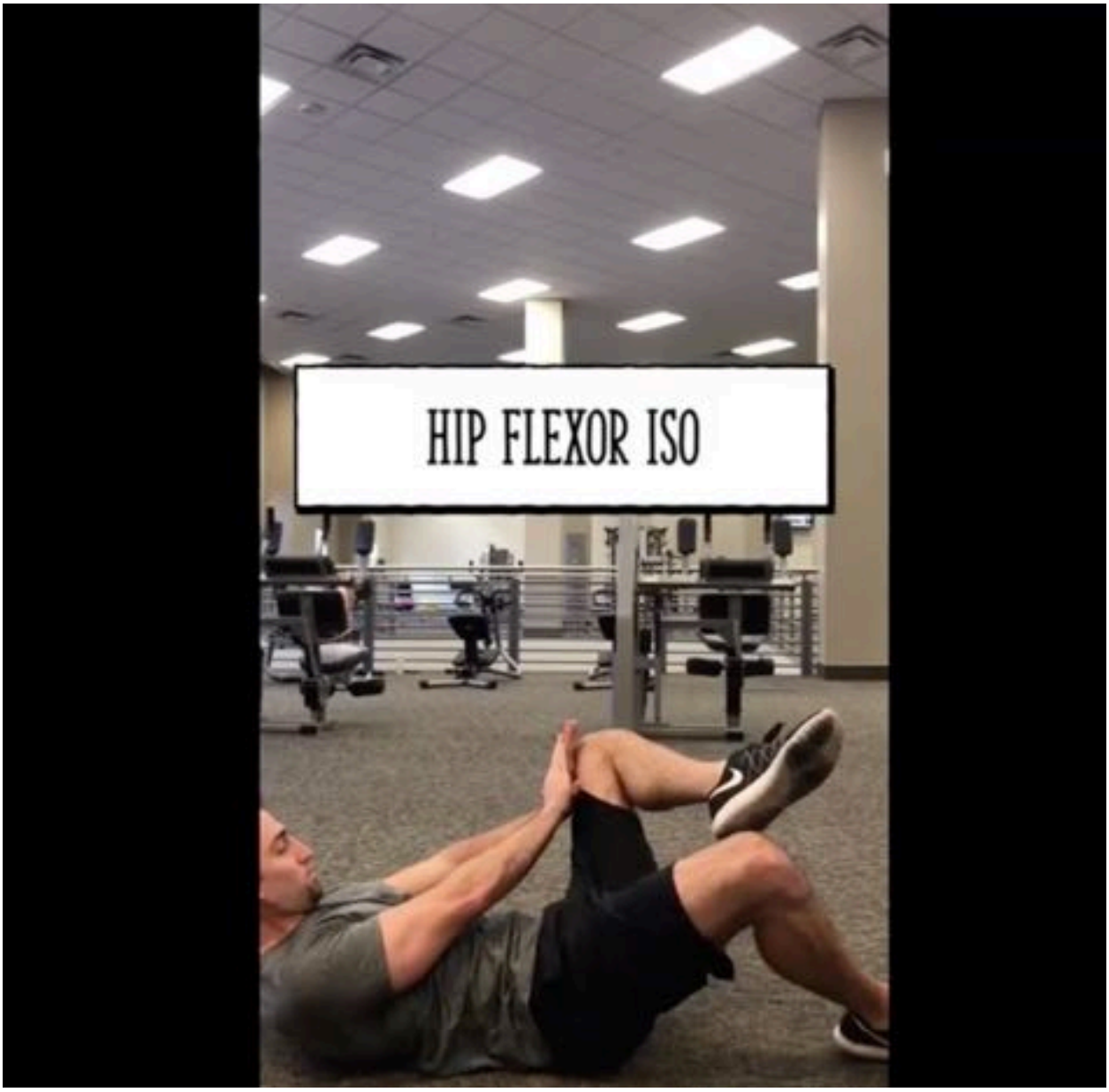
We've got a new anterior hip pain series coming in from @drjarodhalldpt
Great series in the next few days on this topic!

DAY 14

https://www.instagram.com/p/BfMJoOeB-gH/?taken-by=thestrengththerapist

Continuing the month on hips we have a second installment with @drjarodhalldpt on anterior hip pain.
Today he discusses why it might need to be treated and some options for squatting.
Tomorrow we will bring more treatment options!

DAY 15



https://www.instagram.com/p/Bf0xow2DgmC/?taken-by=thestrengththerapist

The last in the anterior hip pain series from @drjarodhalldpt
Today we look at a few interventions to more specifically address the tissue and improve other qualities to allow less stress on the region.

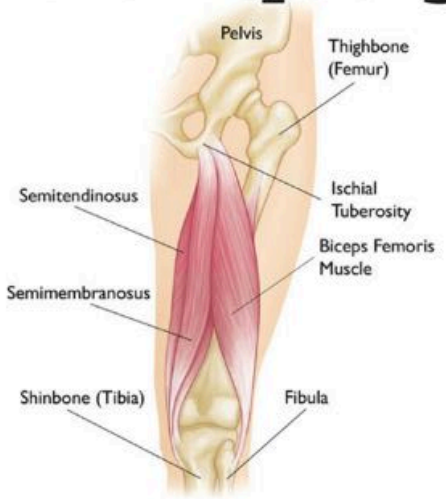
DAY 16

https://www.instagram.com/p/BfRS_OADwbw/?taken-by=thestrengththerapist

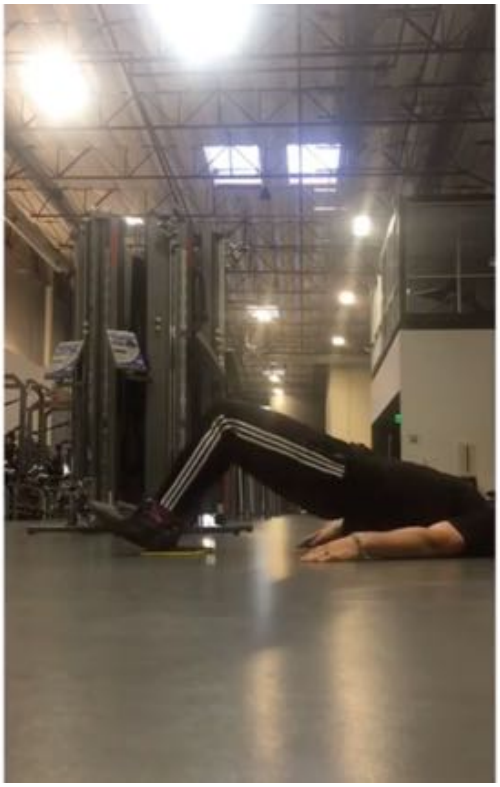
Gluteal Tendinopathy with @strengthcoachtherapy—
This post is part of the hip series put together by @thestrengththerapist
For the purpose of this post we will refer to the glute med tendon. One of the hallmark signs we see in the research with gluteal tendinopathy is increased hip adduction during gait. Thus our exercise prescription is based on improving the strength of the hip abductors.
Like most tendon based injuries, loading patterns will start with minimal range of motion excursion, isometrics for analgesia and deliberate tempo reps. It is hard to convey all those aspects of a progressive loading and tendon protocol into one little instagram post. Use your tendon based loading principles and apply them to hip abduction and gait motions.
I am showing a progression here from some low load exercises on the table that can be performed in isometrics all the way to standing movements that emphasize getting in and out of hip adduction. The standing band side kicks are an isolating style movement for the hip abductors and should be introduced towards the end of the rehab process.
The exercises demonstrated here are certainly not the only way to rehab a gluteal tendinopathy. This is just my quick demo of a few things I know. Be creative with your exercise prescription and try to focus on the specific functional tasks and movements that your patient is struggling with.

DAY 17

Proximal Hamstring Tendinopathy



Isometrics
Isotonics Hip Extended → **Isotonics Hip Flexed**
Energy Storage



https://www.instagram.com/p/BfT24OpDOaC/?taken-by=thestrengththerapist

Proximal Hamstring Tendinopathy

This condition is typically seen with deep, localized pain at the ischial tuberosity region and is aggravated with activities such as running, jumping, lunging, sitting, etc. Due to the lack of current literature and knowledge on this specific pathology until recently, many people with it may go mis-diagnosed and mis-treated (such as many being given a diagnosis of apophysitis or piriformis syndrome). Individuals who participate in activities involving distance running, sprinting, hurdling, or challenging change of directions are the most common population. Contrastingly, individuals who are sedentary may get this as well due to the nature of tendinopathy.

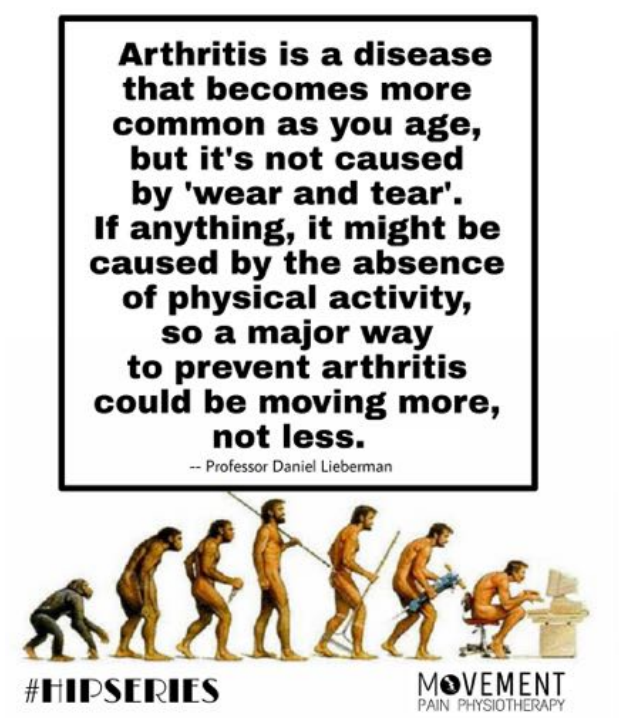
Compression of the tendon at the attachment to the ischial tuberosity during either hip flexion or hip adduction is believed to be a key mechanism. This can occur during high contraction (such as eccentric contraction during a sprint) or during long static stretches at end range hip flexion (such as in many yoga poses). It is a common complaint that the area becomes less symptomatic after warming up but increases in symptoms after activity.

The most important treatment is load modification. Typically activities with energy storage need to be primarily modified, or those that create a great deal of compression to the tissue. Shaped cushions for sitting can be a means for very provocative situations where sitting increases symptoms.

Treatment should follow standard tendinopathy procedure: phase.1 isometrics, phase 2 HSR with minimal hip flexion, phase 3 HSR with hip flexion, phase 4 energy storage

Additionally performing other activities such as swimming can be very beneficial to maintain fitness.

DAY 18



Hip pain is common, particularly among adults older than 50 years, and intuitively linked to osteoarthritis (OA). In clinical practice the diagnosis is more often categorised as radiographic OA 'wear & tear'.

Interestingly, Kim and colleagues challenge the common belief that hip pain is caused by 'wear & tear' regarding to radiological finding. In their study, they show that "only a minority of patients with hip pain had radiographic hip OA, and only a minority of patients with radiographic hip OA had frequent hip pain."

The risk factors of hip OA are multifactorial. The prevailing biopsychosocial model recognizes the contribution of all relevant;
- Biological (i.e joint pathology, inflammation, genetics)
- Psychological (i.e emotion, catastrophizing, coping, stress)
- Sociological (i.e social support, occupation education, income)
- Behavioral (i.e sleep, diet, physical activity)

that dynamically interact with one another to generate the experience of pain.

Along with modern culture, we need to reconsidering the role of physical inactivity in regard to OA. The majority of people with OA do not achieve recommended levels of moderate physical activity.

In recent review, Booth and colleagues propose that physical inactivity is an underappreciated cause of almost all chronic diseases/conditions, whose outcome increases mortality and decreases healthspan. Remarkably, "physical inactivity speeds biological aging, and physical inactivity gene identification will be a future challenge to help decrease inactivity-induced chronic disease and improve the health and well-being of our society".

Physical activity plays an important role in disease prevention, along with symptom management of OA pain. In a review of the clinical evidence for exercise in OA of the hip and knee by Bennell & Hinman; "physical activity

has been shown to be beneficial for individuals with OA disease of all severities".

As health care professionals, we have a personal and professional responsibility to promote physical activity not only to help people with OA but also to make a massive difference to our society through educating healthy behaviors especially to be physically active.

Kim et al. Association of hip pain with radiographic evidence of hip osteoarthritis: diagnostic test study. BMJ. 2015.

Booth et al. Role of inactivity in chronic diseases: evolutionary insight and pathophysiological mechanism. Phys Rev. 2017.

Bennell & Hinman. A review of the clinical evidence for exercise in osteoarthritis of the hip and knee. JSMS. 2011.

Golberg C. Harvard Study Of Skeletons Suggests Much Age-Related Arthritis May Be Preventable. 2017. http://www.wbur.org/commonhealth/2017/08/14/skeleton-study-arthritis-harvard

DAY 19

https://www.instagram.com/p/BfZE-iwj9cI/?taken-by=thestrengththerapist

In athletes demonstrating an overextension fault through their lower back during athletic movements, 9090 breathing can be a great way to retrain positioning. With feet up on a wall, the athlete posteriorly tilts his or her pelvis but lifting their butt slightly off the ground. Next, they take a big belly breath then exhale by pushing the rib cage down. This makes a great first step into bracing the spine in a non-overextended position.

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From there, I commonly transfer to a squat pattern using the goblet squat. The counterbalance provided by the weight helps many athletes squat deeper and I cue them to maintain the same rib cage down position prior to filling their belly with air to pressurize the core for better bracing.

DAY 20

Squat Variations

https://www.instagram.com/p/BfbqV9Njr72/?taken-by=thestrengththerapist

We have the overhead, front, high bar, and low bar variations. Moving from left to right we have progressively more hip dominant versions.
A proficient overhead squat will be very vertical, with ideally the belly button up not looking any different than when standing.
A front squat will have a slight more forward lean due to the placement of the bar on the clavicles.
A high bar back squat will have more forward translation of the torso, entering into more hip flexion.
A low bar back squat will have the most change in inclination of the torso and most usage of the hips.
If you find yourself wanting to train more hip musculature, it would be in your favor to move towards low bar squats (though you could do any of these still). In contrast, if you find hip flexion bothersome, using front squats or potentially overhead squats would be an option.

DAY 21

https://www.instagram.com/p/BfeL9QnDwfd/?taken-by=thestrengththerapist

We've got a special post from @hamishthephysio where he demonstrates the sit to stand and single leg sit to stand (I think this is first ever video of Hamish doing an exercise!)
———-
I'm normally not one for exercise videos or post as there are plenty of those out there! However I've teamed up with the @thestrengththerapist as part of his 28 day hip series.

Here I demonstrate a simple but effective go to exercise I use for hips and (knees) that requires minimal equipment. We all need to be able to sit to stand but often this becomes affected with hip and knee pain. It's also a nice one to introduce squats to the non-squatting clients out there.

Isolating into a single leg adds difficulty and then adding weight, speed of movement and chair height can also add different challenges to the activity.

Stand up and sit down and repeat

DAY 22

https://www.instagram.com/p/BfgzVQgji7s/?taken-by=thestrengththerapist

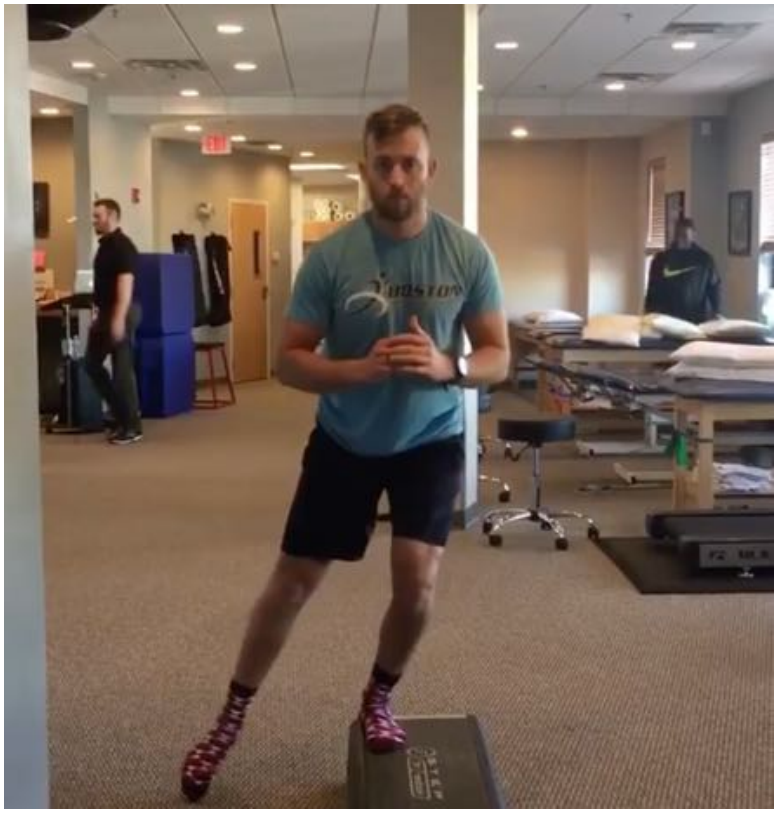
Today in the hip series we have biomechanics man @fitness_pollenator to talk about single leg training!
Stiff-legged deadlifts are one of the best exercises for training the hip extensors in their most stretched position.

The unilateral (single-leg) version of the exercise adds even more bang for the buck. Not only does it strengthen the hamstrings and glutes, but it also forces you to stabilize in the frontal and transverse planes.

The trouble is, for people who don't have circus performer balancing abilities, the unilateral version can be difficult to load up heavy without falling all over the place.

The answer? Hold onto something with one hand while performing the movement.

DAY 23



https://www.instagram.com/p/BfjXM1wDrvz/?taken-by=thestrengththerapist

28 Days of Hips: Tri Planar Hip Matrix with @simplestrengthphysio
This @ZerenPT -Esque drills is one of my favorite high level single limb hip control drill.
1⃣ Lat Toe Tap to Hip March
2⃣SLDL to Hip March
3⃣Curtesy Tap to Hip March
Truly, all three of these movements require excellent expression of motor control across all three planes of motion.

What I look for as a coach:
-Smooth, cooridinated movements. Try to keep a consistent tempo. For you crazy cats out there, try using a metranome to accomplish this. -Ability to keep stance hip engaged throughout with a soft hinge as the client/athlete descends into the various positions. Followed by full hip and knee extension into a march without lumbar hyper extension. (Think push the ground down and get tall)
-Ability to express cooridination side to side. (This tool can be regressed and be diagnostic in nature)

You can use this for so many things in "rehab" and it is a great demonstration of executing the basics, and creating a template to be creative and MOVE.

DAY 24

https://www.instagram.com/p/BfmArcxD35B/?taken-by=thestrengththerapist

Today's feature in the hip series is from @marcusfilly of @functional.bodybuilding. .
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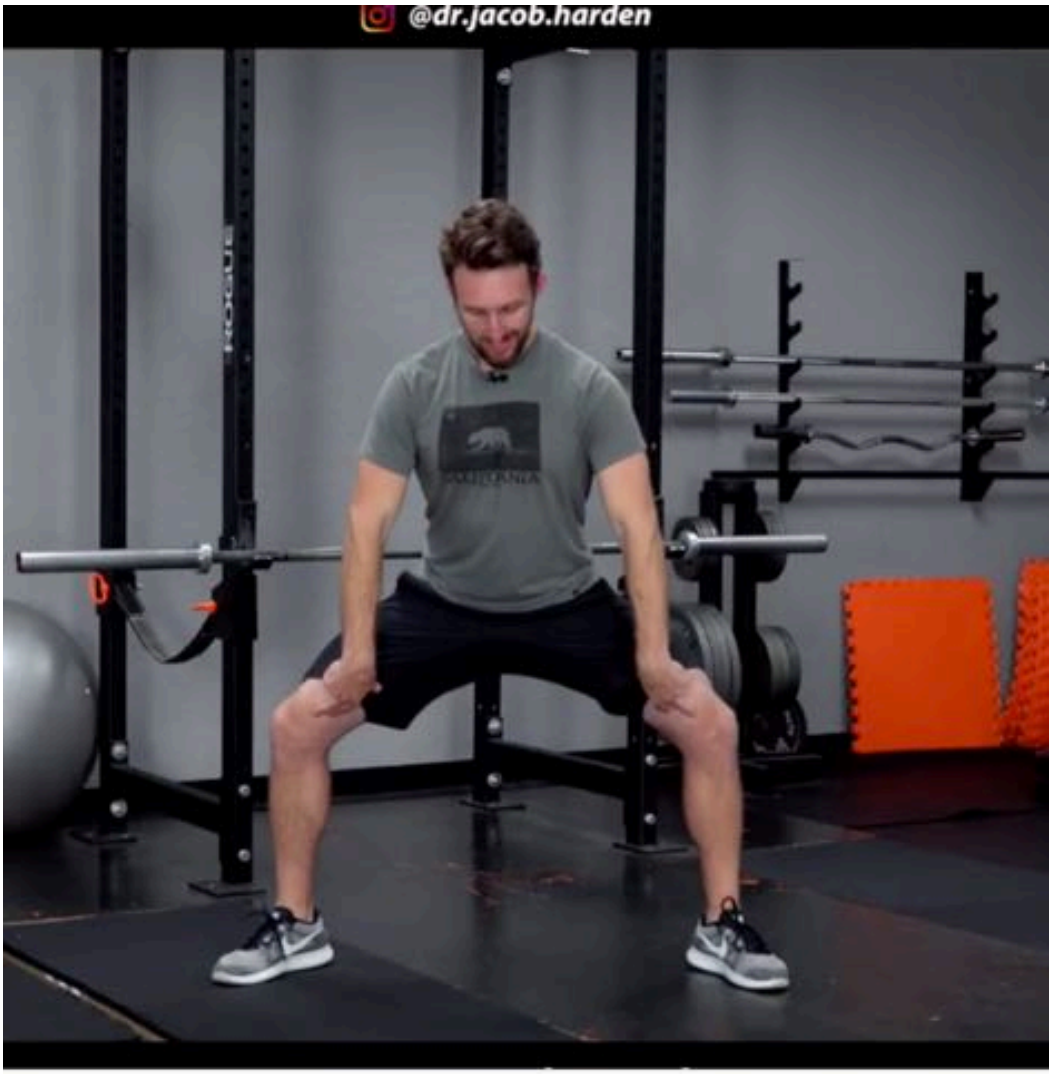
Dumbbell Suitcase RNT Reverse Lunge

Reactive Neuromuscular Training is a terrific approach to training the hips in the lunging pattern. When a light tension is applied to the lateral aspect of the knee and pulling towards the midline, there is a reactive activation of the glute medius. This combined with the reverse lunging pattern is a great way to help athletes and client retrain their hip muscles to work in coordination with one another for simple and complex patterns like lunging.

DAY 25



https://www.instagram.com/p/BfpJOCqDrJz/?taken-by=thestrengththerapist

ISOMETRIC HOLDS TO IMPROVE MOBILITY with @dr.jacob.harden ! Stoked to have him join in the series!

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@thestrengththerapist asked me to be a part of his 28 Days of Hips Series so I wanted to use the opportunity to talk a little mobility 🔬 science and show you one of my favorite ways to work on mobility and positioning.

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Increases in mobility do not improve physical length of muscles and connective tissues unless you hold stretches for upwards of 20 to 30 minutes. What happens with ↔ stretching is that you increase the tolerance to the stretch or reduce the discomfort of being in it. Basically, we make your brain feel a little safer with you being in that position.

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With an iso hold, we not only improve our tolerance to the stretch but we also buold strength in that

position. So it is going to have better carryover to movement.

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We pull ourselves actively into as ⤵ deep of a range of motion as we can and hold there. As you build strength, that position becomes more comfortable and you can pull yourself into deeper ROM. And because you got strong there, you are already a step ahead in improving performance.

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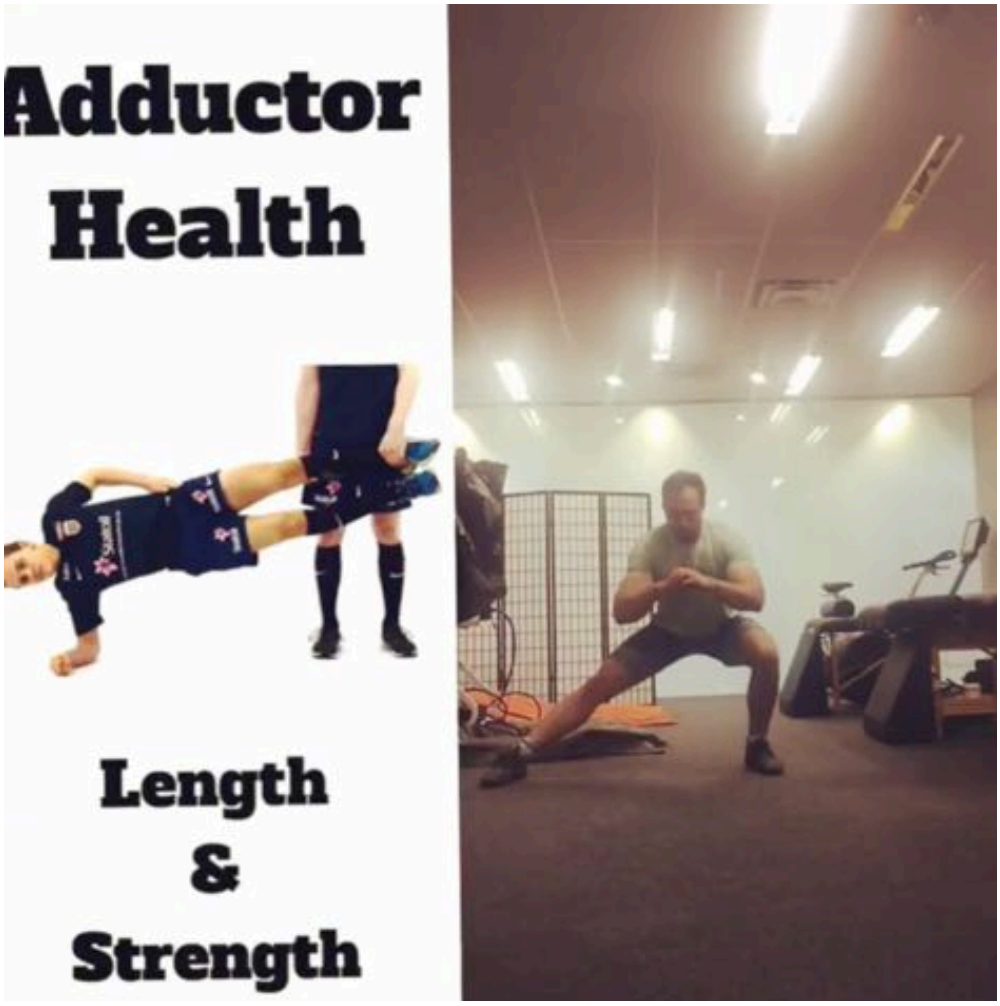
Use ⏱ 15 to 30 second sets to start and work up to 1 minute sets. Accumulate 3 to 5 minutes a day in a position to see some rapid improvements.

DAY 26



https://www.instagram.com/p/BfrDyCcjXtS/?taken-by=thestrengththerapist

In this installment of the 28 days of hips we are looking at Adductor health - length and strength
The adductor group is often under examined and considered for training. This can leave it at risk for conditions such as athletic pubalgia, sports hernia, and groin strains.
We can work on length of the adductors through initial exercises such as a rolling or sliding split stance adductor mob where we have the eccentric controlled to aid in allowing more excursion, then concentric to benefit more development of strength. This can be done with a straight knee or bent knee to target different adductors.
From there we can expand to lateral lunges or Cossack lunges to target them in a movement more similar to most sports where they function primarily eccentrically to control our propulsion.
Finally we have the Copenhagen adductor exercise that has been developed and researched as one of the best adductor strengthening exercises.

DAY 27

Deadlift Variations

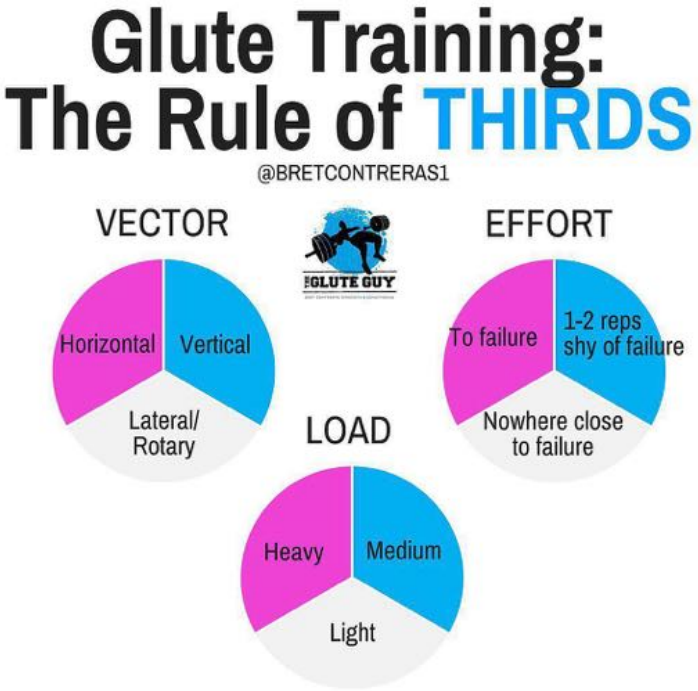
Hip Dominant <--------> Knee Dominant

Stiff Legged | Conventional | Trap Bar | Sumo

https://www.instagram.com/p/Bftrulwj4Z9/?taken-by=thestrengththerapist

In our 28 day hip series, we are examining the deadlift again. We had @dr.jacob.harden discuss mobility options for the movement, and today we are discussing different options of the movement. Deadlifting is a hinge based movement where we emphasize hip movement and minimize lower back movement (with variable amounts of knee movement). There are a wide range of deadlift options, today we are looking at four standard ones - the stiff legged/RDL, the conventional, the trap bar, and the sumo deadlift. Each has its unique benefit, most notably the distribution of emphasis on either the hips or the knees. The SLDL is the most hip dominant, with the conventional following. The trap bar and sumo can be interchangeable depending upon your style of of each.

DAY 28



https://www.instagram.com/p/BfwQ9RTD--m/?taken-by=thestrengththerapist

In the last of our 28 days series we have a graphic from @bretcontreras1 on Glute training examining the different components to consider in maximizing Glute work.
The glutes are a very important muscle group for the hip and are commonly not trained to their optimal potential. Check out this graphic to learn how!