

P H Y S I O K I N E T I X



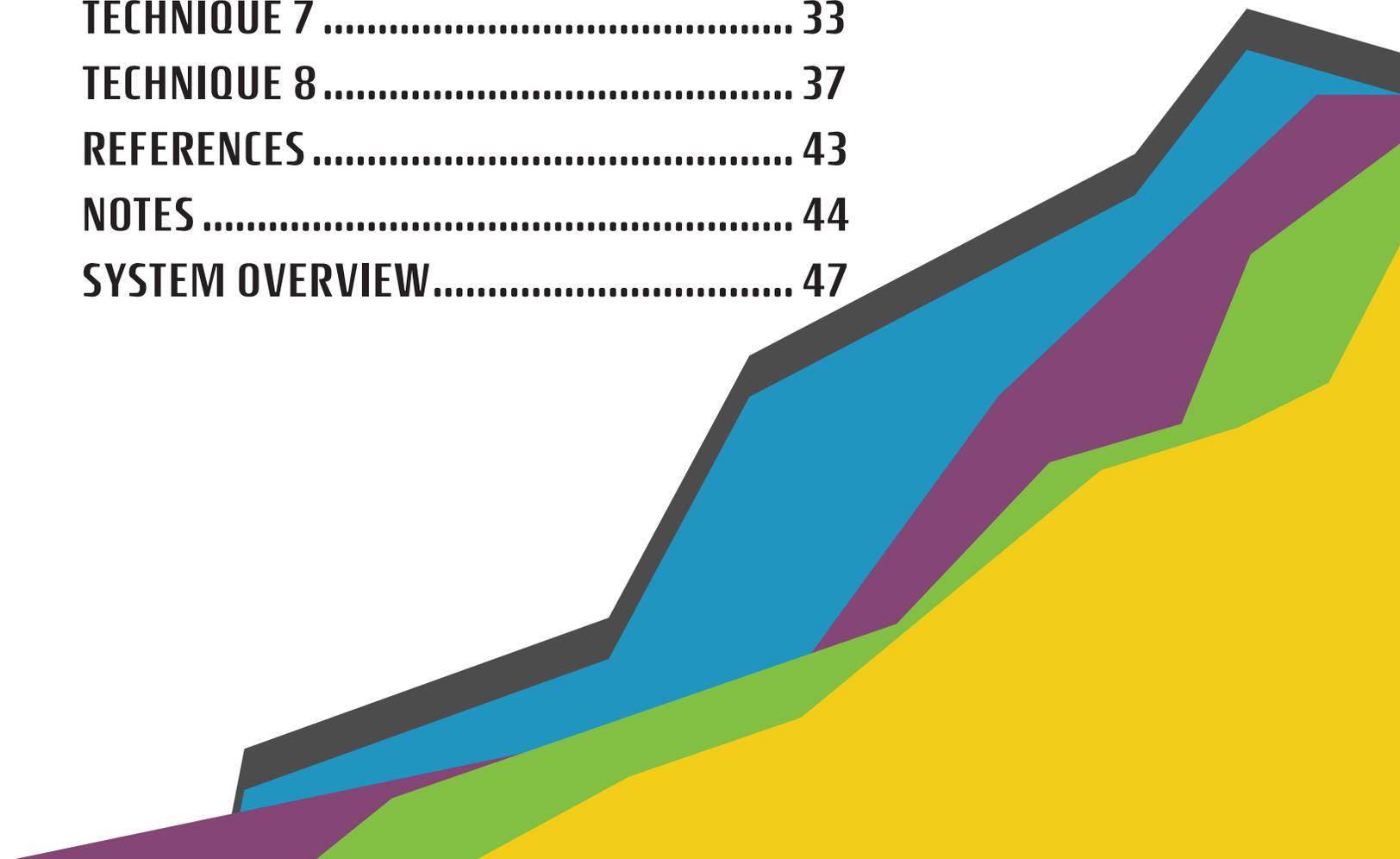
L E V E L 3 : P O W E R

**CREATING
NEUROLOGIC &
CARDIORESPIRATORY ENDURANCE
WHILE STRENGTHENING
THE MOTOR SENSORY
CORTEX**

PRESENTED BY PAUL KELLY, BS | CPT | LMT | MMT

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FOREWORD

Some of us dedicate our entire lives to reach the highest pinnacle of success in a single modality, such as manual therapy. Only a select few are able to attain the same level of excellence in more than one discipline. Such is the case with Paul Kelly. I first met Paul in Nashville almost two decades ago at one of my Myoskeletal Alignment Techniques (MAT)® workshops. He was a young exercise physiology graduate from the University of Tennessee and already a sought-after athletic trainer. However, even at this early age, Paul saw the need to broaden his skill set by integrating manual therapy and corrective exercise training together into one system, and thus began his own journey towards effective pain management by starting The Temple Human Performance Center in Knoxville, Tennessee in 1996.

His quest to develop a multi-modality healing system had led him to the prestigious Core Institute of Structural Integration, where he completed an advanced bodywork degree. Paul was still in the initial stages of his manual therapy career when we met in Nashville, but you certainly couldn't tell by watching him work. Soon, a dialog and friendship began that resulted in an invitation to join me on the road as a teaching assistant.

In my 2011 "Dynamic Body" textbook, Paul and I introduced the idea of combining manual and movement-based therapy into one subject matter. I asked Paul to develop some functional training routines to complement the Myoskeletal hands-on work we had been showcasing across the country. The positive response from practitioners led to the production of two home-study courses that blended both manual and movement-based therapy together as one. In "Motion is Lotion" and "Art of MAT," Paul and I assessed, treated and trained clients with pain, injury and sports performance issues. I believe this was the first time anyone had "married" the two modalities, and the end result was a big success.

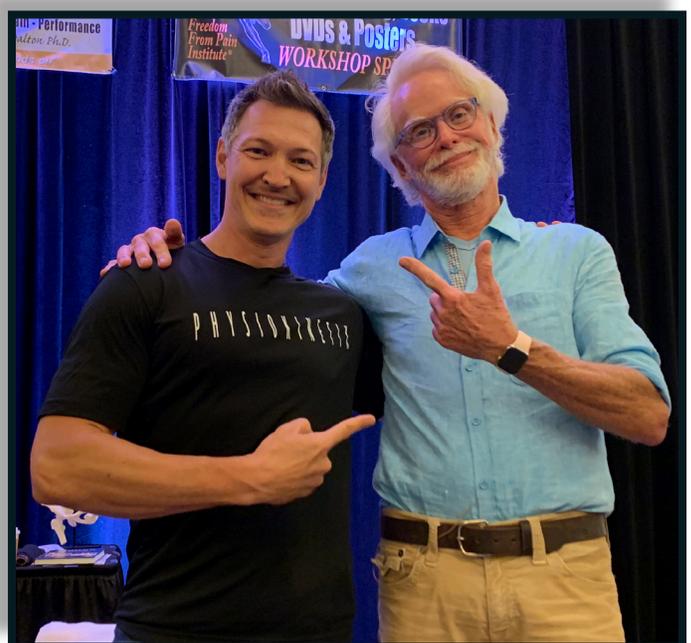
For the past 12 years, Paul has conducted MAT seminars for my Freedom From Pain Institute, and during these events, he includes home self-care exercises to enhance the MAT hands-on work. The popularity of this multi-modality approach has finally culminated in the creation of Paul's completely new exercise and conditioning program, called PhysioKinetix Training (PKT). The role of PKT is primarily to get people moving in order to get them stronger, healthier and more in touch with their bodies.

Whether the goal is to lose weight, gain muscle, prepare for a sport or move without pain, Paul's innovative combination of preventive and corrective exercises provides an accessible path to success. As a client-specific exercise program, PKT assists people of all ages in setting and achieving realistic fitness goals via a uniquely structured set of progressions. It's also a brain-based program that focuses on key factors such as movement assessments, genetic predispositions, bio-mechanics, injury history, neurological status and pain provocation.

Learning to perform PKT movement assessments alone will give practitioners a step up in the game, as the identification of compensation patterns ultimately leads to the development of better treatment strategies. PKT is designed to complement and enhance the hands-on work you're currently doing. By combining manual and movement-based therapy, massage therapists, personal trainers, physical therapists and chiropractors are better able to align, balance and neurologically re-educate the neuromyoskeletal system to create long-lasting, life-changing effects.

Erik Dalton, Ph.D.

Founder of the Freedom From Pain Institute, creator of Myoskeletal Alignment Techniques and author of "Dynamic Body: Exploring Form, Expanding Function"



LETTER OF SUCCESS

When I first started going to Temple Human Performance about 14 months ago, I was a mess. I was attempting to recover from surgery-caused neuropathy due to tourniquet use during my Achilles tendon repair in 2016. The repair left me with nerve damage from my lower thigh to my toes. In 2017, I had a left hip replacement. Despite 1 1/2 years of physical therapy, I had not been able to recover much or even begin to rehab my Achilles and calf. My daughter was very concerned about my overall physical status and because she was working at Temple, she encouraged me to go.

I'd also had a cervical fusion in 2004, and due to my significant use of crutches and frequent forward bending and poor posture, I developed 3 herniated cervical discs and a brachial plexus neuropathy. I'd had low back problems for years and all of these aforementioned difficulties led to significant time sitting or reclining, when I'd always been highly active. This was all depressing and scary.

In my first few months at Temple I could not stand on my left foot for more than a few seconds, I had significant pain in my back that radiated to my buttocks and down both legs, and it took me over an hour of morning movement alongside Tylenol and Ibuprofen to be able to start my day. I could barely get out of my car, and I avoided attending UT football and basketball games because I had great difficulty getting up and down the stairs and feared falling. In addition, my work efficiency suffered greatly.

I have been seeing Paul Kelly on nearly a weekly basis, as well as 2-3 additional sessions per week with his trainers. About 6-8 months ago the pains in my back, buttocks and legs ceased. My balance has improved tremendously and I can easily get out of my car. I can go up and down football and basketball arena stairs confidently. I play golf, walk, sneak in some basketball, and body surf. I've lost 18 pounds, gained significant muscle and core strength, can kick my 17-year-old son's butt (jk!) and my daughter is no longer worried about me being able to walk her down the aisle in several years. My son started attending Temple after a severe ankle sprain and works out there regularly with the trainers and has made tremendous gains. My stubborn, self-starting, exercising daughter has begun workouts there as well and is learning new and useful information each session.

The wealth of knowledge that Paul Kelly has and his approach of treating the whole body has educated and assisted me to an astonishing degree. I've treated with orthopedists, physical therapists, massage therapists, had nerve stimulation treatments, stem cell injections and nothing has come close to benefiting me like Paul and his staff have. I learn new facts about anatomy, physiology, nutrition and inflammation every time I'm there and no other professional or group of professionals I've treated with over the years can hold a candle to him!

J. Sidney Alexander, MD
Board Certified Psychiatrist
Medicolegal and Forensic Expert



INTRODUCTION

Paul Kelly's PhysioKinetix Training (PKT) is a series of restorative, functional techniques aimed at making your mind and body better able to align, balance, and re-educate the neuromuscular system to create long lasting, life changing effects. It is a "Treatment & Training" approach created to complement and prolong the effects of Erik Dalton's Myoskeletal Alignment Therapy and other therapies in the industry.

Over the past 25 years, Paul has seen that there has been no true progressive, neuromuscular education system that includes all the needed equipment, is 100% portable, is easy to use, and provides multiple freedoms of movement with resistance. Other routines have not focused on creating structural fixes for any injury, at any age. Paul began to understand that therapy and exercise were not enough separated. A body needs a program that is fast, efficient, and productive; a program that begins with primal forms of movement and progressively brings you to performance. There are many types of routines out there (ex. Pilates, Yoga, movement therapy, circuit training, and weight loss exercises) but none that encompass the most important parts of each. Many people don't want to do all of these programs because of difficulty, costs, and the potential to hurt oneself.

As the owner of a manual therapy clinic for over two decades and Erik Dalton's Senior Master Myoskeletal Alignment Therapist, Paul has seen countless clients come in with injuries due to some of these other exercise programs. These programs were not progressive and did not start with personalized assessments. Paul began to develop a system that could help his clients fix the problems caused by these other programs or from any stress on the body such as work and sports. He began assessing his clients and in turn addressed the four levels where problems occurred: Mobility, Stability, Power, and Performance. Using his personal experiences with other programs and the damage seen with clients coming from these programs, Paul began to fine-tune his system so that any of his clients, no matter age or health, could begin to reverse the effects of any injury or stress on the neuromuscular system.

Although Paul had put his program into motion to help his clients, he knew he wouldn't get the rest of the picture without more research and education. PhysioKinetix was truly born after Paul started attending neuroscience congresses for five years and seeing the cognitive, neurological implications to pain and its relationship to movement. After this, he knew he needed to add more brain and movement based learning into his manual therapy practice to solidify the outcomes. By incorporating PhysioKinetix, his clients started to neuromuscularly re-educate themselves to the point that Paul could see their pain decrease and self-efficacy increase.

The entire PhysioKinetix Training system has been developed with one major idea in mind; accessibility to anyone, anywhere. PhysioKinetix isn't just a video series, a group of products, or manuals; it is a network of clients and clinicians, across the world, who aim to make individuals better through the combination of manual therapy and movement science. This is why PhysioKinetix offers workshops, one-on-one or group mentorships, advanced certifications, and all of the materials necessary to accomplish personalized goals. It is the hope of Paul to reverse the stresses on our bodies from everyday life and get everyone to "Move For Life".

**"A SELF-CARE,
PAIN MANAGEMENT,
PERFORMANCE SYSTEM
WITH A
RESTORATIVE, FUNCTIONAL
APPROACH"**

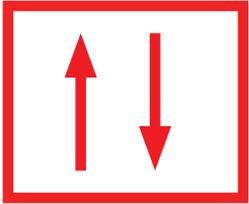
WHAT IS OUR POWER LEVEL?

WHEN YOU ARE PROFICIENT IN LEVELS 1 AND 2 THEN YOU'RE READY FOR LEVEL 3. THIS LEVEL DIVES INTO BUILDING ENDURANCE AND POWER IN OUR WHOLE NEUROMUSCULAR SYSTEM WHILE STRENGTHENING CROSS PATTERNS IN ALL PLANES OF MOTION. YOU WILL USE PKT RESISTANCE BANDS DESIGNED TO IMPROVE MOVEMENT, COORDINATION, AND STRENGTH WHILE PROVIDING A VARIABLE RESISTANCE TO INGRAIN NEW MOTOR PATHWAYS AND CHALLENGE OUR BRAIN. THIS LEVEL SHOULD IMPROVE YOUR RIGHT AND LEFT MOTOR PATTERNING, RESTORE YOUR CARDIORESPIRATORY FITNESS, AND INCREASE YOUR METABOLIC RATE TO BURN MORE FAT AND DRIVE HORMONES AND TISSUE GROWTH RESPONSES. NOW IS THE TIME TO DO WHATEVER LIFE BRINGS YOUR WAY, FEELING STABLE, STRONG, AND BALANCED, WHILE HAVING THE ENDURANCE TO KEEP DOING IT.

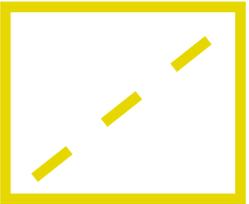
WORKOUT KEY



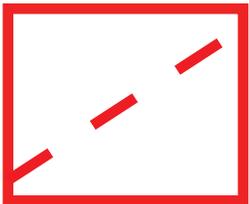
Symmetry Lines - Show ideal lines of symmetry that should be shown in the body during an exercise.



Force Arrows - Show what parts of your body you should be pushing and pulling with during an exercise.



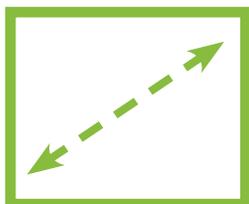
Lengthening Lines - Show what parts of your body you should be feeling lengthened during an exercise.



Strengthening Lines - Show what parts of your body you should be feeling strengthened during an exercise.



Nerve Glide Arrow - Show what parts of your body will receive a nerve glide during an exercise.



Movement Arrows - Show where certain parts of your body should move during an exercise.

LEVEL 3: POWER

Exercise 1: Kneeling Hip Hinges with Bands

Materials Needed:

Level 1 or 2 Resistance Arms Bands, PKT Yoga Mat, PKT Balance Pad

Goal:

To create strength and endurance while improving mobility to the knee, hip, and Spine. This technique will allow you to build global power while emphasizing your quadriceps, Lower abdominals, hamstrings, gluts, and back extensors. This will reciprocally strengthen all the inhibited synergistic stabilizers and agonists. Use this technique to help decrease spinal load as you provide a strong mobile base of support. This is an excellent lower cross fix with emphasis on correcting hip restrictions while teaching dynamic trunk stability and proper Head on body Kinesthesia.

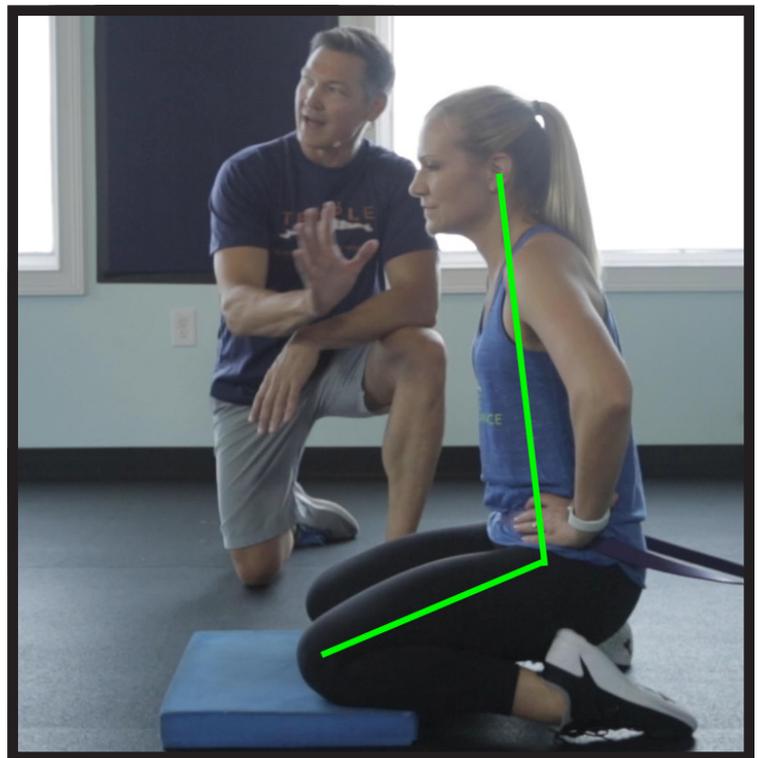
Assessment:

Look for your head to lead in front of the hips to compensate for hip and core strength. This will be the biggest challenge for this technique. Try placing your hands over your head to increase difficulty and create mobility of the T-spine. Look for your ability to create global extension while maintaining a correct head on neck posture.

Technique:

Image A: Facing away from the anchor point, get inside of the band and put it around your hips/ASIS. Step forward over your balance pad and take slack out of band. Kneel onto the pad with both knees. Start by sitting back control your decent and resist the tension of the band while maintaining your head and hip alignment.

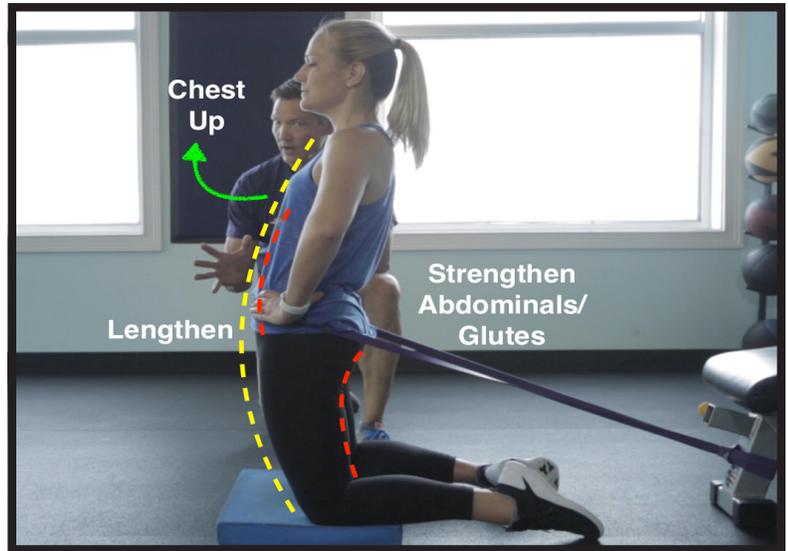
Image A (Start)



Technique:

Image B: Move your hips, trunk, and head forward into extension hinging through the hips as you lift your chest. Do a 2 second squeeze of your gluts and hamstrings and do a forceful exhalation to stimulate your diaphragm and core stability. Lower yourself back under control and Repeat.

Image B (Technique)



Graded Exposure Movement:

Action: Try these Posterior arm reaches with hip extension to create a anterior global graded exposure by opening the hips, chest, shoulders, and hands.

Image C: Anchor Level 3 band behind you and affix to (door, tree, bar, weight) and get inside band. Now, get down onto balance pad, and while in the kneeling position reach arms, hands, and fingers back, externally rotating, staying as comfortable as possible.

Image C (Movement)

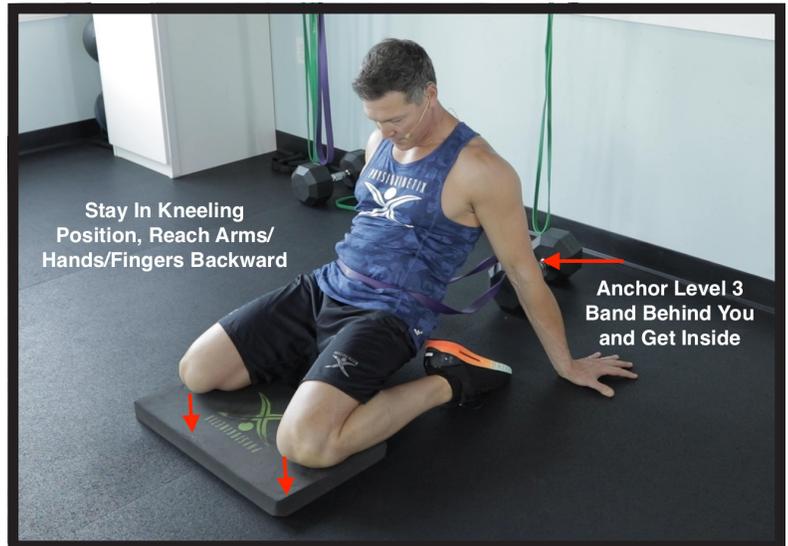
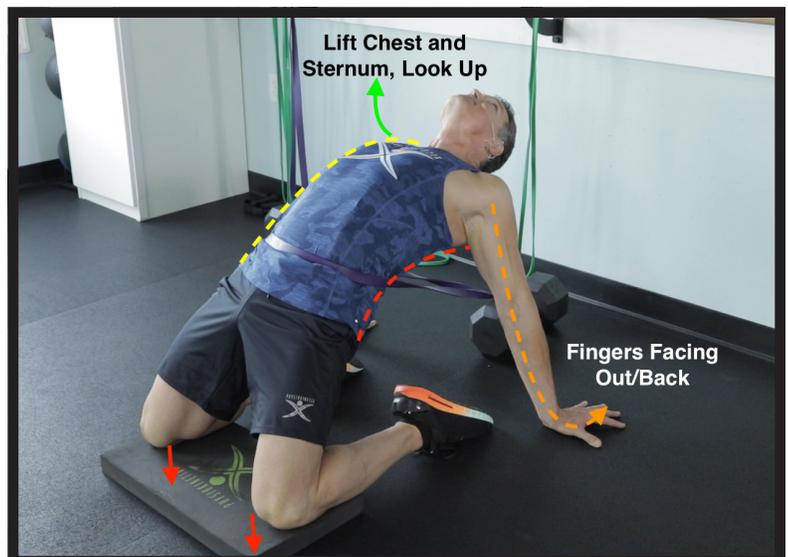


Image D: Look up and over your head as you extend your pelvis and sternum toward the ceiling. Try to externally rotate the shoulder and supinate your hands as far, as comfortable as you lift your fingers into extension. Repeat 3-5x

Image D (Movement)



Neuro-Modifier:

Action: Use a loop band around your chest with a hip band to add more resistance for the dynamic stabilizers of the Core and hip.

Figure D: To begin Neuro-Modifier movement get inside the bands and kneel onto the balance pad. Pick a level 1, 2, 3, band or a combination of different resistance. Put one around hips and one around chest. Choose the resistance that you can do with proper control. Holding band in both hands across chest, sit back with chest up and in line with hips.

Figure E: Take a deep breathe and bring your hips forward into an extension dynamically stabilizing your Core as you lift your chest up and press band forward. Bring the band back to your chest and lower yourself back to the start position. Maintain proper head and hip relationship on the eccentric motion. Repeat the movement. (Optional chest press with top band for added strength). Do 8-12 controlled reps.

Reps: 8-15 x 2-3 sets

Notes:

Image D (Neuro-Modifier)

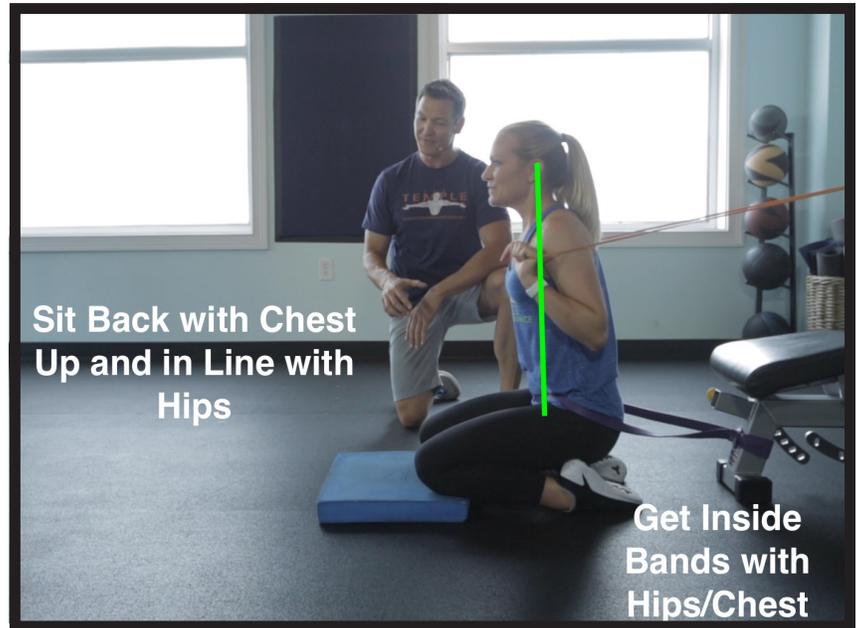
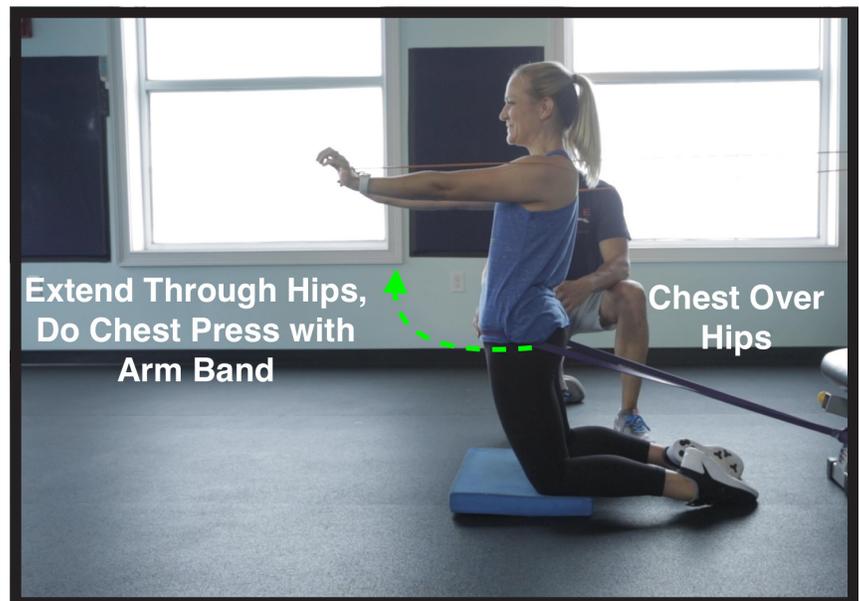


Image E (Neuro-Modifier)



Exercise 2: Plank Transitions

Materials Needed:

PKT Yoga Mat, PKT Balance Pad

Goal:

To dynamically strengthen and build endurance in the Shoulder stabilizers, Core, hips, and ankle in the horizontal plane. This is one of the best global strengthening techniques that will not only provide less compressional load to spine; it pleases the brain by providing intrinsic and global endurance. Planking should be done daily to prevent instability and provide control and strength to your neuromuscular system and prevent spinal degeneration.

Assessment:

Look for shoulder, Core, and hip stabilizer weakness, (sagging), when they are pressing up into the front plank. Look for a smooth transition from front plank to side plank. Make sure the body stays connected during the transitions.

While in the side plank look for instability in the hips and spine. Watch for the tendency to lean forward towards toes or staying hinged at hips.

Technique:

Action: Take a deep breathe and Engage your core as you press into the floor in the front plank.

Image A: Press through the floor with your arms and your toes, lift hips, head and shoulders together.

Image B: After 30 seconds to one minute, transition to the left side plank position rotating like a board. Make sure to keep your shoulder, (packed, away from your ear), and keeping your hips and feet stacked perpendicular to the ground. Try to maintain a straight body from your heels to your head.

Image A (Start)

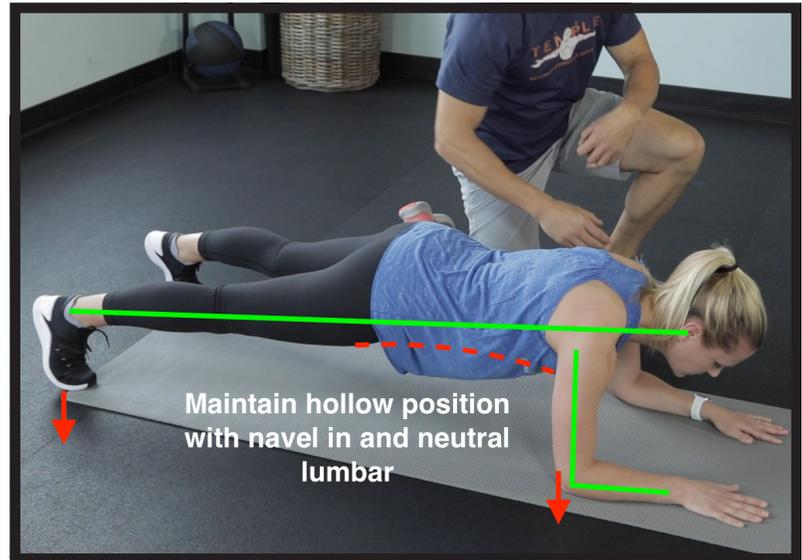


Image B (Technique)



Image C: Transition to the other side. Try to keep your shoulder, hips, and ankles rolling in one piece. Try to increase from 30 seconds to one minute each transition as long as strict form is maintained. Try to build your neuromuscular endurance over time.

Movement:

Action: To lengthen the Anterior to Posterior spiral system through graded exposure, (Bretzel).

Figure D: Lying on your side take your top leg and pull your knee toward your chest and hold with your opp arm. Reach back with your top hand and grab your lower foot.

Take a deep breath and feel the neuro-facial lengthening as your rib cage and thorax expand. As you exhale allow your body to go to the next barrier. Gradually allow your shoulder to externally rotate toward the floor with each breathe. Focus on unhinging at the hips as you lift your chest. (Use your balance pad under your head if needed.)

Roll over and do the other side.

Image C (Technique)

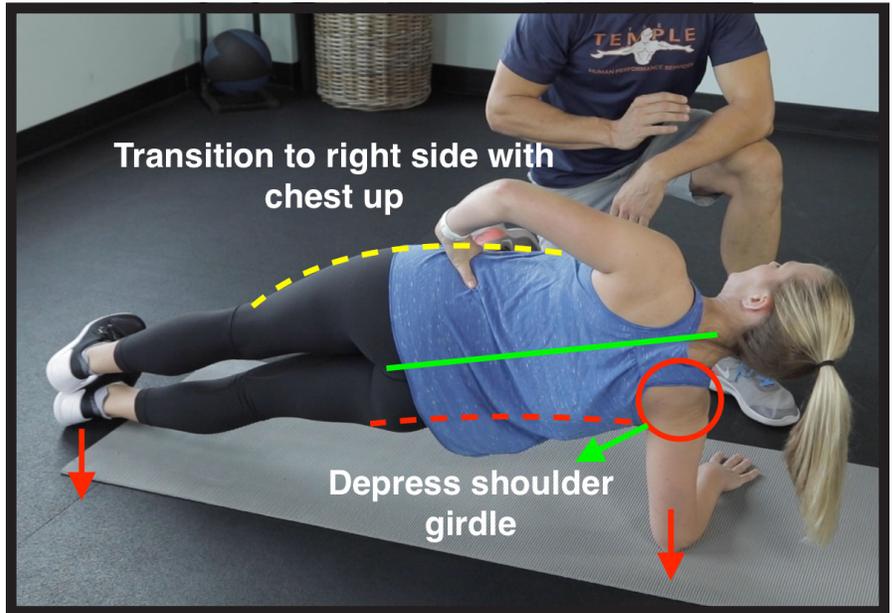
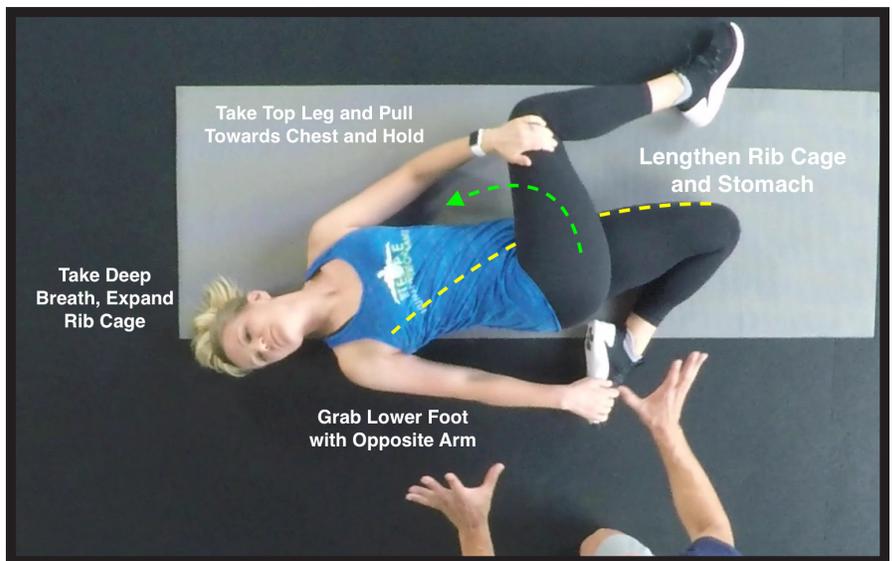


Image D (Movement)



Neuro-Modifier:

Action: Front Plank Up Downs. These will increase the demand on the shoulder stabilizers and Core as you stabilize the trunk and legs.

Figure E: Start in the front plank on forearms. Use a wide stance for more stability

Figure F: Push up one arm at a time, balancing on elbow as you extend that arm.

Figure G: Now shift your weight over to your opposite hand and press up to a push up position.

Figure H: Bring elbow back down to the ground again, begin sequence back down to front plank position and then switch arms on the press up. Alternate between Right and Left as you stabilize.

Reps: 8-15 x 2-3 sets

Notes:

Image E (Neuro-Modifier)

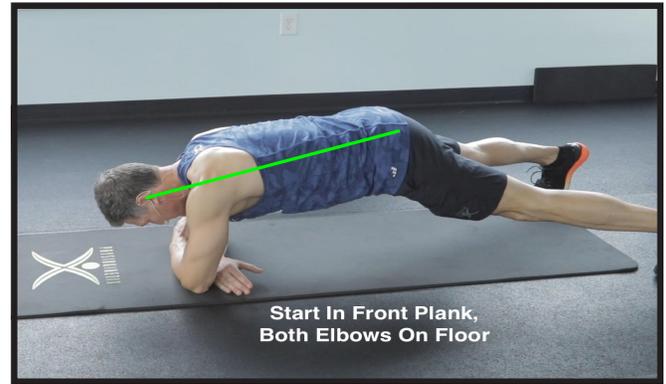


Image F (Neuro-Modifier)

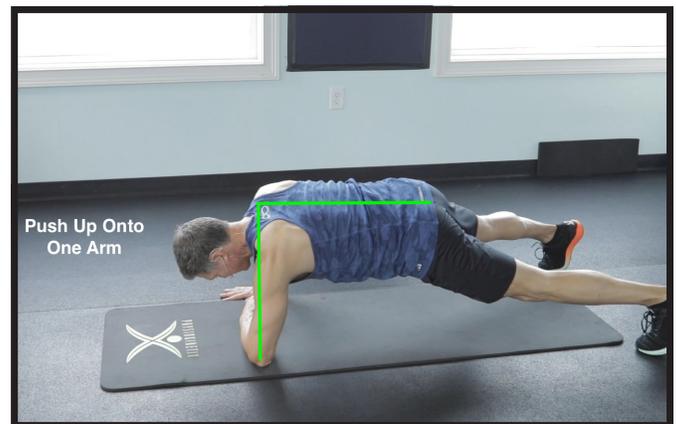


Image G (Neuro-Modifier)

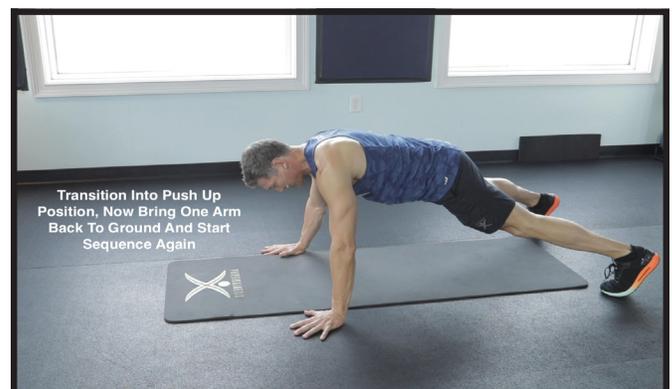
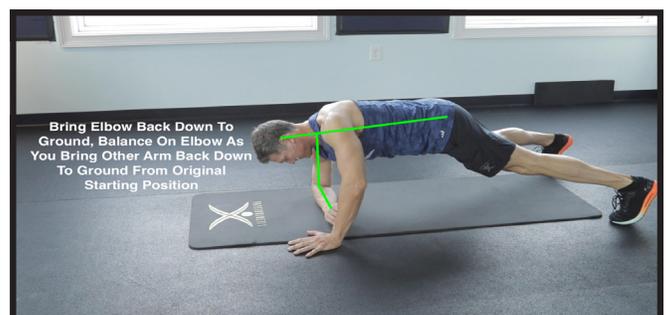


Image H (Neuro-Modifier)



Exercise 3: X-Push Ups

Materials Needed:

PKT Yoga Mat, PKT Balance Pad, PKT resistance band

Goal:

To globally and intrinsically strengthen and build endurance in the anterior chain, shoulder girdle, hip, and Core. This will reflexively lengthen the posterior shoulders and provide stability to the lower back, shoulder stabilizers, and spine.

Assessment:

Look for Restriction and weakness of the shoulder stabilizers on the press. Is the Core able to rise with the pelvis and shoulders. Your body needs to rise all together, no sagging. If there is shakiness or lack of motor control, suspect a compensatory pattern or pattern weakness.

Technique:

Image A: Face down on the floor in the X position.

Image B: Bring your hands close to your chest with elbow at 90. Take a deep breathe as you engage your Core and lower shoulder stabilizers. Press into the floor as high as possible. Press through your arms trying to spread your shoulder blades.

Image A (Start)

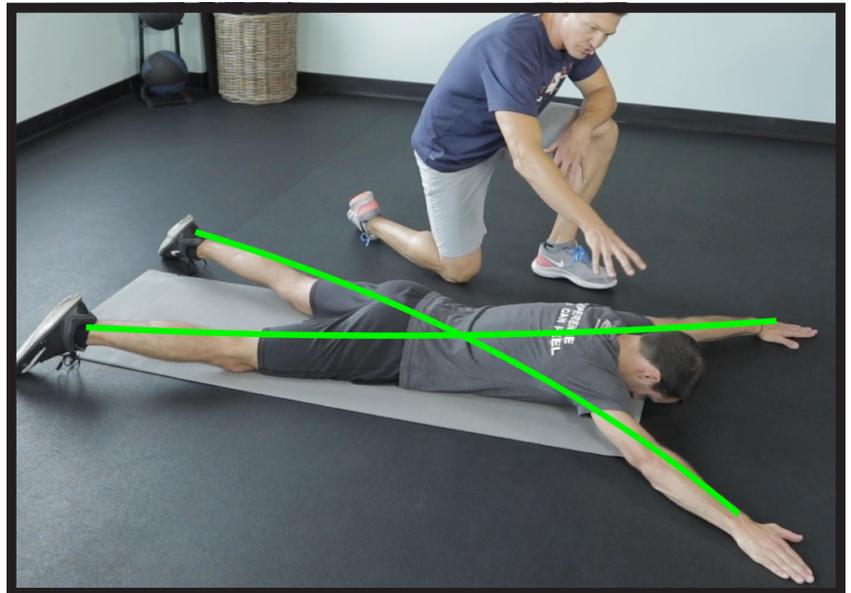


Image B (Technique)

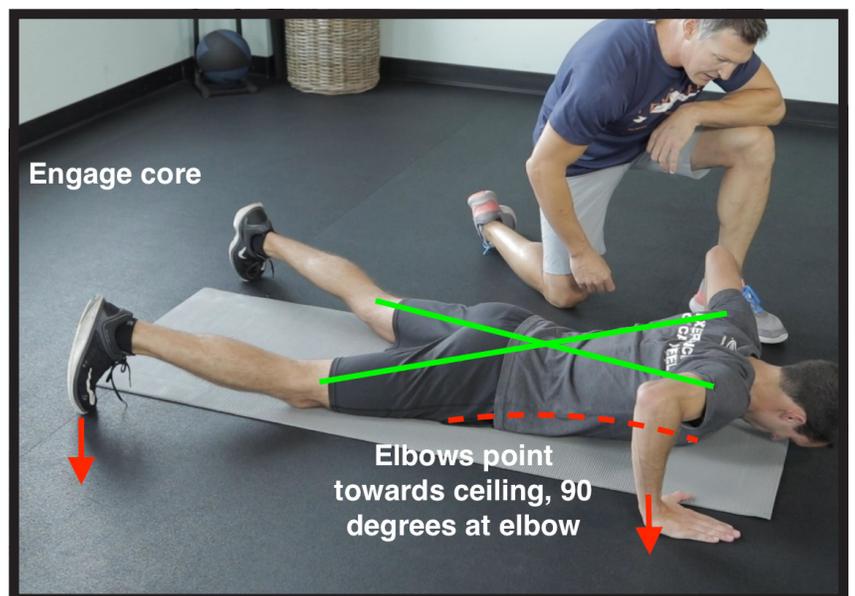


Image C: While keeping your hands in line with your body, push into the ground and lift head, shoulders and hips in a straight line. After you have extended all the way up with shoulder blades apart, lower yourself back onto the ground and repeat.

Movement:

Action: Prone Segmental reaches.

This will gradually lengthen the right and left spiral fascial patterns. As you roll back and forth it will mobilize the ribcage and create lubrication and neuro-fascial glide of the hands, forearms, and shoulders.

Image D: Lying on your belly with arms in the high five position over head and hand open.

Image E:
Take a deep breathe as you look into the movement reach your left arm up toward the ceiling and open your chest and arm. This will mobilize your ribcage and T-spine, and improve thoracic extension. Now reach right lifting palm up to the ceiling as you mobilize your right ribcage and T-spine.

Image C (Technique)

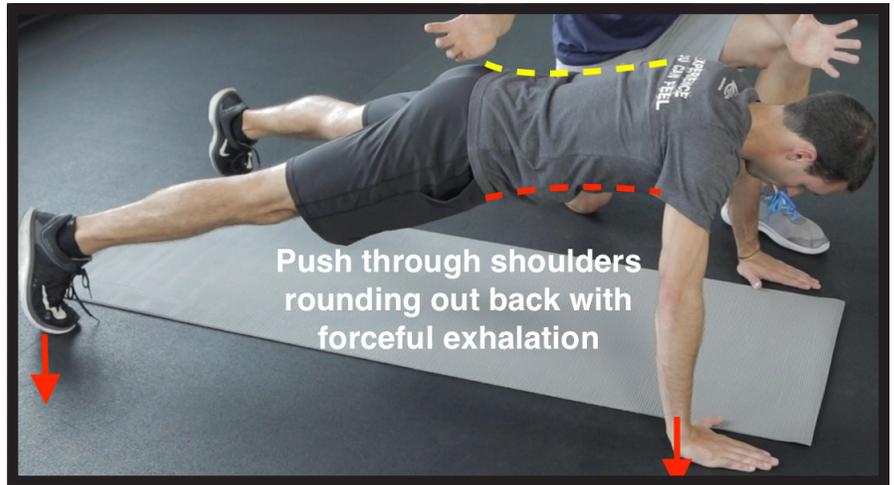


Image D (Movement)

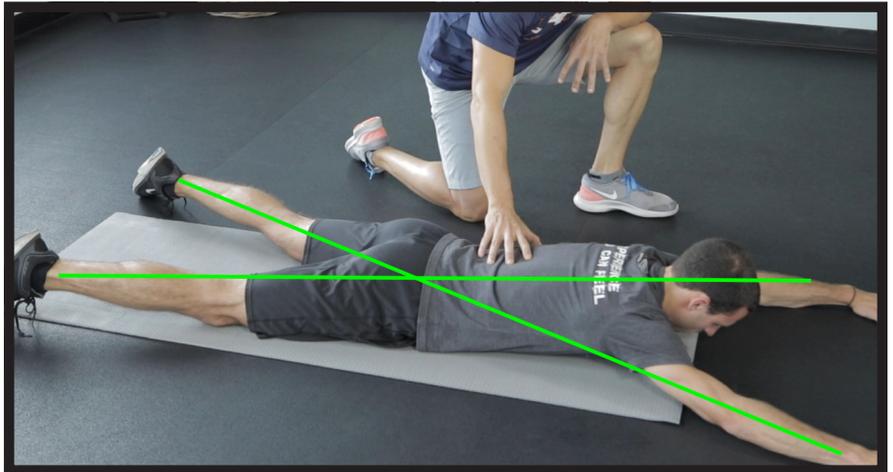
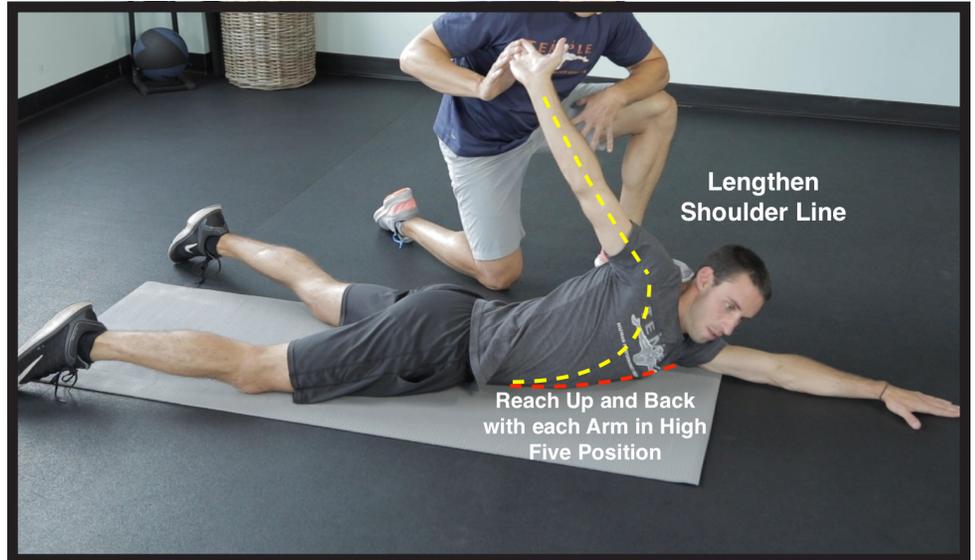


Image E (Movement)



Image F: Reach up and back with the other arm gradually exposing this side to the motion while mobilizing the neuro-fascial system. Repeat to each side 4x.

Image F (Movement)



Neuro-Strength Modifier:

Image G: On the push up alternate lifting left and right arms individually during push. Also, alternate lifting individual legs while doing toe taps.

Image G (Neuro-Modifier)



Image H: Alternate to right arm during push-up, lifting left shoulder parallel to body maintaining control with opposite shoulder.

Image H (Neuro-Modifier)



Image I: Alternate to your left leg as you dynamically stabilize your trunk and lift your leg into extension. This will create demand in from left shoulder through the trans-abdominals fascia to the opposite hip stabilizers.

Image I (Neuro-Modifier)

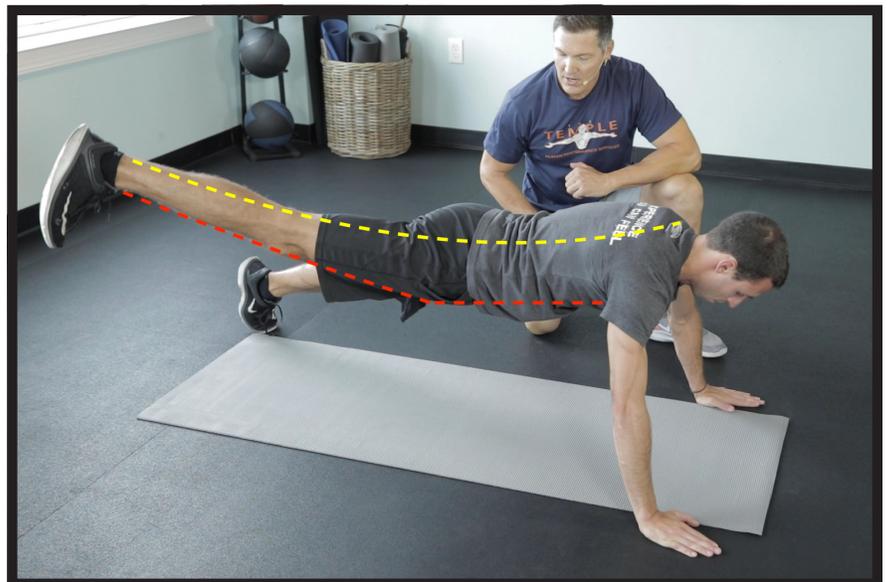


Image J: Return to the floor and push back up and lift Right leg parallel to your body. This will now place the stress on the Right shoulder stabilizers and fascial cross pattern to the left hip. The transition should be controlled and pain free.

Reps: 2-3 x 8-15 reps

Notes:

Image J (Neuro-Modifier)



Exercise 4: Step Ups with Bands

Materials Needed:

Level 1 or 2 Resistance Arms Bands, PKT Yoga Mat, PKT Balance Pad

Goal:

To unilaterally strengthen the Hip complex and increase proprioceptive awareness, balance the vestibular system, and reflex centers of the brain. The use of an external resistance creates a stabilizing affect and will help you build postural awareness and Core endurance. The step-up will target the gluts, hamstrings, and spinal erectors and spinal stabilizers. This will lengthen the anterior hip complex, while neurologically balancing the neuromuscular system and improving posture.

Assessment:

The ankle is your major communicator to the balance centers. Look for inward knee collapse, lateral instability of the hip. This is a sign of joint instability and neurological weakness of lateral hip and contra-lateral spinal stabilizers. The lack of mobility of the ankle on the initial press into the floor could cause you to have to compensate at the head inhibiting the proper firing order in gluts and hamstrings.

Technique:

Image A: Use an anchor for the band. Step inside the band and face outward. As you hold the band with both hands at shoulder height step over balance pad and Kneel down. Make sure to keep the knee at 90 degrees. This will be your driving leg.

Image B: Take a deep breathe and engage your Core as you step up. Drive through your heel and lift the opposite knee up. Try to float opposite knee in the air making sure not to touch it down. If this is to difficult you can always step down to stabilize. Work on your control on this technique. Do each leg 2 to 3 sets 8-15x

Image A (Start)

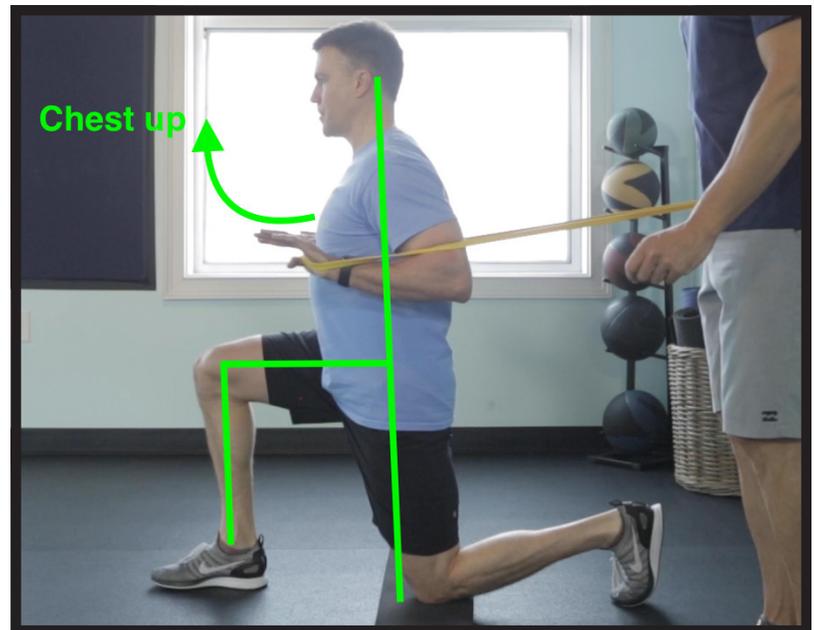
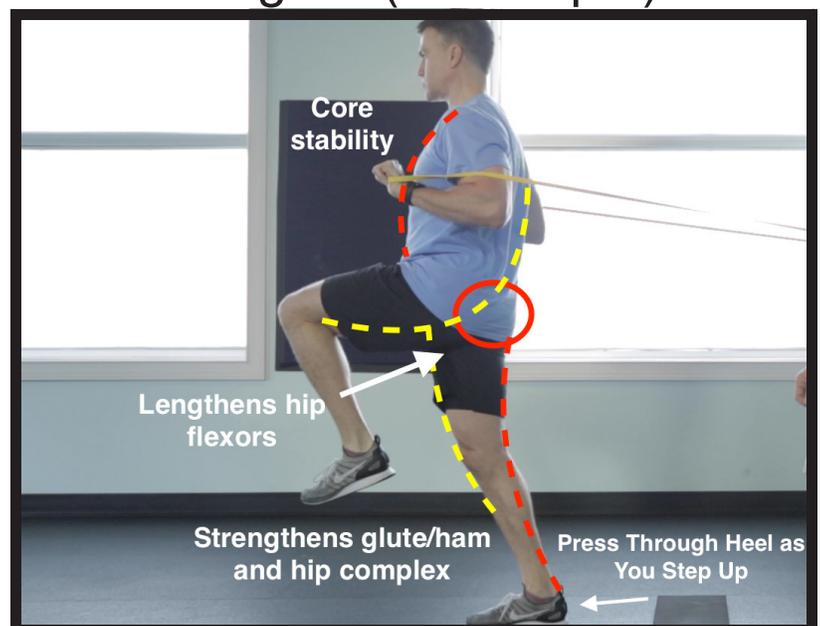


Image B (Technique)



Movement:

Action: This Barre or Wall press recreates Core stability as it gradually exposes hip extension and ankle dorsiflexion.

Image C: Place hands on wall or on bar making sure arms are locked. Step forward with one leg into a short lunge, make sure your hips and feet are facing in the same direction.

Image D: As you press the wall/ barre to engage your Core and maintain a proper head and hip alignment; push through heel of your back leg engaging your hamstrings and gluts. Bring your hips towards the bar while maintaining a vertical body position. Exhale as you allow the hip to extend behind your pelvis. Repeat 3 to 5x (Excellent to do after sitting for extended periods of time).

Image C (Movement)

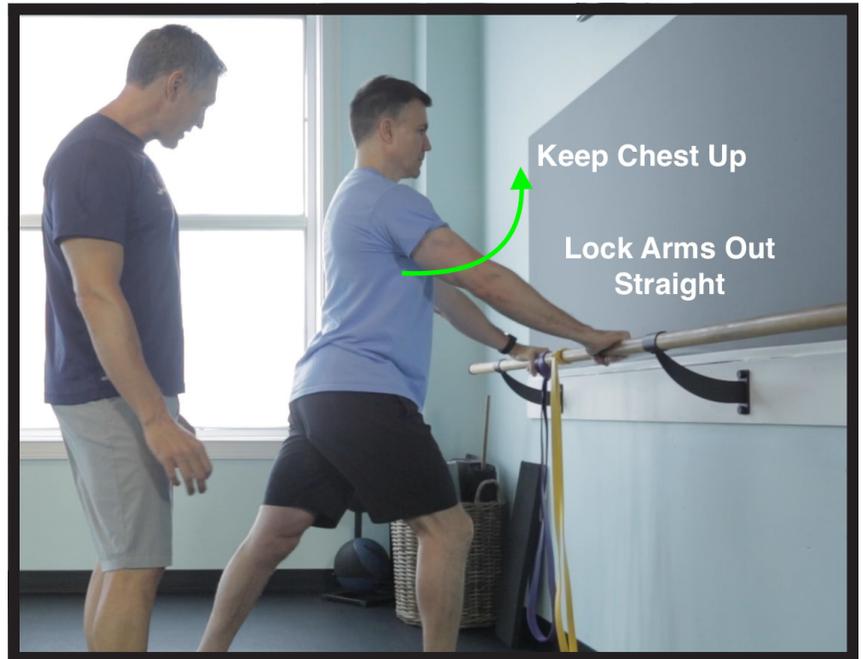


Image D (Movement)



Neuro-Modifier:

Action: Modified Step Ups with PKT handles and resistance Bands

Image E: Anchor a Level 3 Band or (2) Level 2 Bands to a (Door/Tree/Bar) at chest height, attach PKT Handles. Step over the balance pad with moderate tension in the bands. Kneel on the balance pad and keep your front knee bent at a 90 degree angle. Take a deep breathe as you engage the floor putting your weight through your front heel as you press yourself up and forward hip hinging as you bring your back knee up towards your waist balancing for 1 to 2 seconds.

Image F: Control the movement as you return your float leg back to the balance pad challenging the ankle, hip, and spinal stabilizers and eccentrically strengthening the hamstrings, hips, Core. Try each leg 8-15 reps, 2 sets.

Notes:

Image E (Neuro-Modifier)

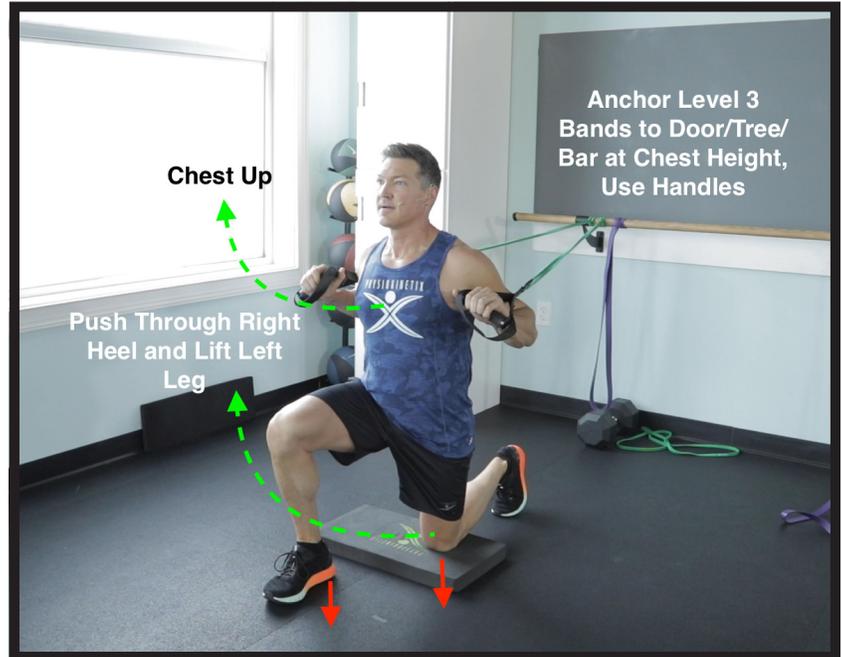
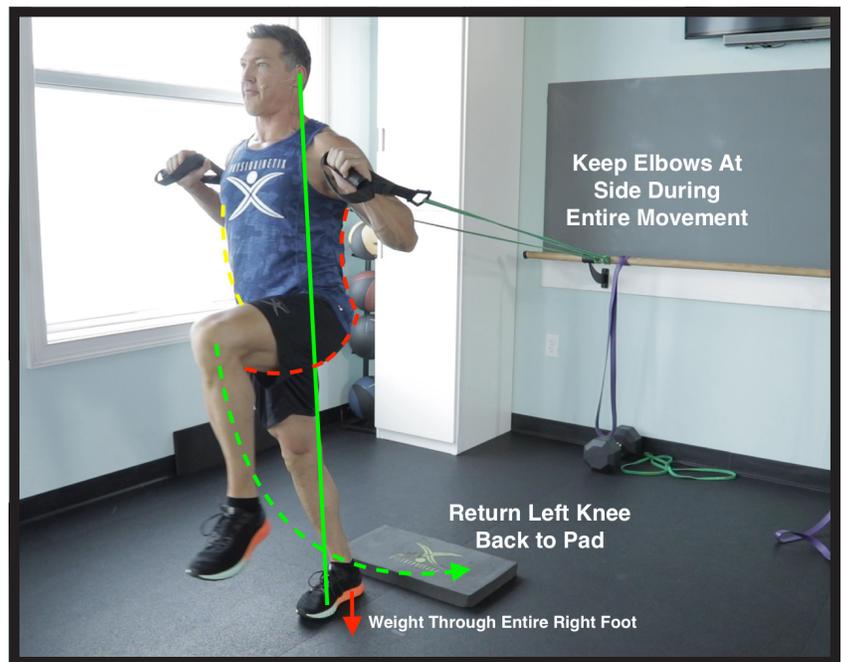


Image F (Neuro-Modifier)



Exercise 5: Band Reverse Fly Squat

Materials Needed:

Level 1 or 2 Resistance Bands, PKT Handles, PKT Yoga Mat, PKT Balance Pad

Goal:

To Neurologically retrain the Somatosensory system emphasizing global activation of the musculoskeletal system and improving arthrokinetics. This body weight squat progression teaches proper technique and awareness of inhibited compensatory patterns that may exist due to Specific Adaptations to Imposed Demands, (SAID). This movement targets and strengthens the posterior chain while adding endurance to the Core, and intrinsic spinal stability muscles. The resistance band will provide a reciprocal lengthening affect of the T-spine.

Assessment:

This technique will expose many different compensation patterns and motor dominance. Look for lack of range of motion and weakness in the ankle, knees, hips, and T-spine. Try to keep your head over your hip as you lower yourself into the squat. If there is pain do not do.

Technique:

Image A: Use PKT mount or anchor to secure band in front of you at least waist height. Walk back and hold band with both hands about 12 in. apart in the sleepwalker position. Use a band that provides moderate resistance, but enough to hold you if you were to fall back.

Image B: As you Sit back into a squat position, pull the band towards your side and press your hands apart keeping tension in your arms, straight and parallel to the floor. Push your knees out over the ankles as you lower yourself down toward parallel with the floor. Maintain a proper head, hip relationship as your weight remains in the entire foot.

Image A (Start)

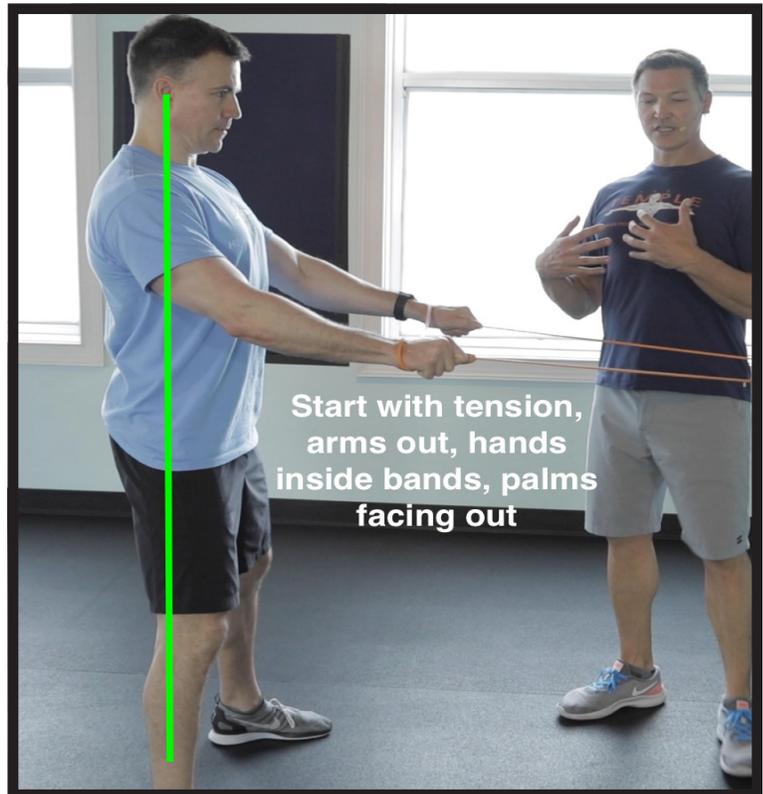
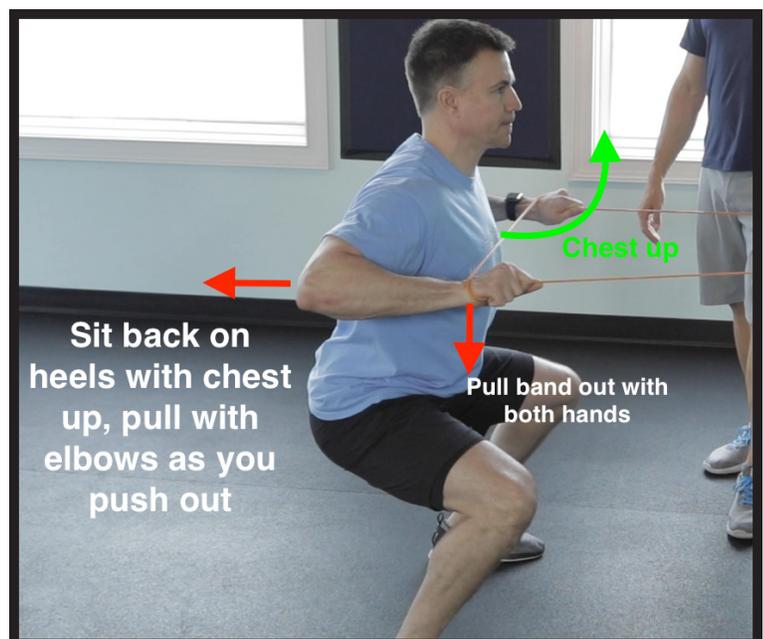


Image B (Technique)



Graded Exposure Movement:

Action: Barre downward dogs: nice posterior neuro-fascial graded exposure. Great for lengthening and re-hydrating the spine.

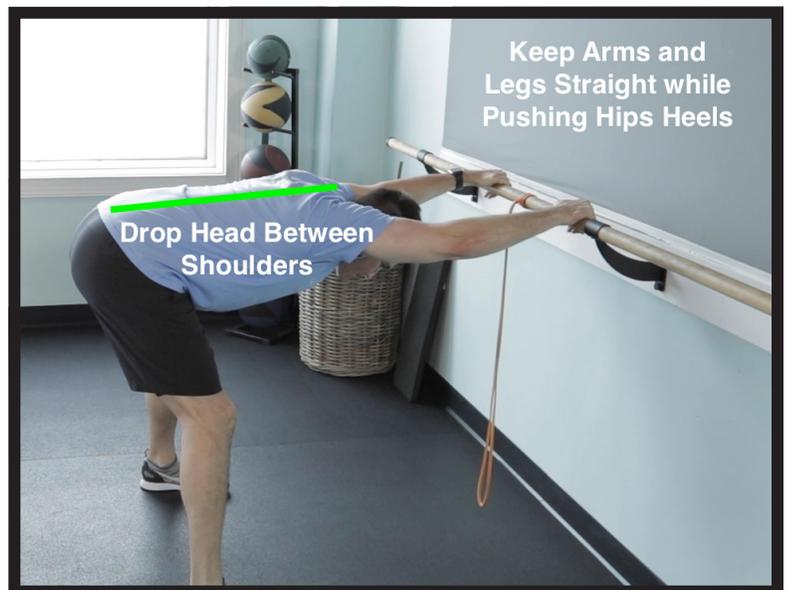
Image C: Use a Barre/Counter top/Chair back. Place your hands thumbs up on the bar. Then, walk back with feet wider than shoulder width and internally rotating your legs as if you were pigeon toed. (If you are genetically pigeon toed then don't internally rotate during movement)

Image C (Movement)



Image E: As you flex at the waist keep your arms and legs straight pushing your hips over your heels and dropping your head between your arms. Repeat the movement as you breathe in and out and flex and extend your trunk comfortably. Try this 4 to 5x.

Image E (Movement)



Neuro-Modifier:

Action: Squatting while Extending the arms Over head, with a external resistance. Strengthens and neurologically retrains the separation of upper and lower body while improving your dynamic Core stability.

Image F: Choose your optimum squat distance that is comfortable, about shoulder width. Step back taking out the slack in the band. Place your hands on the inside of the band palms facing out.

Image G: As you go into the squat try to keep your arms straight as you extend your arms overhead. Focus on Form, keeping your head over your hips, knees over ankles, and feet fully engaging the floor .

Reps: 2 to 3 x 8-15 reps

Notes:

Image F (Neuro-Modifier)

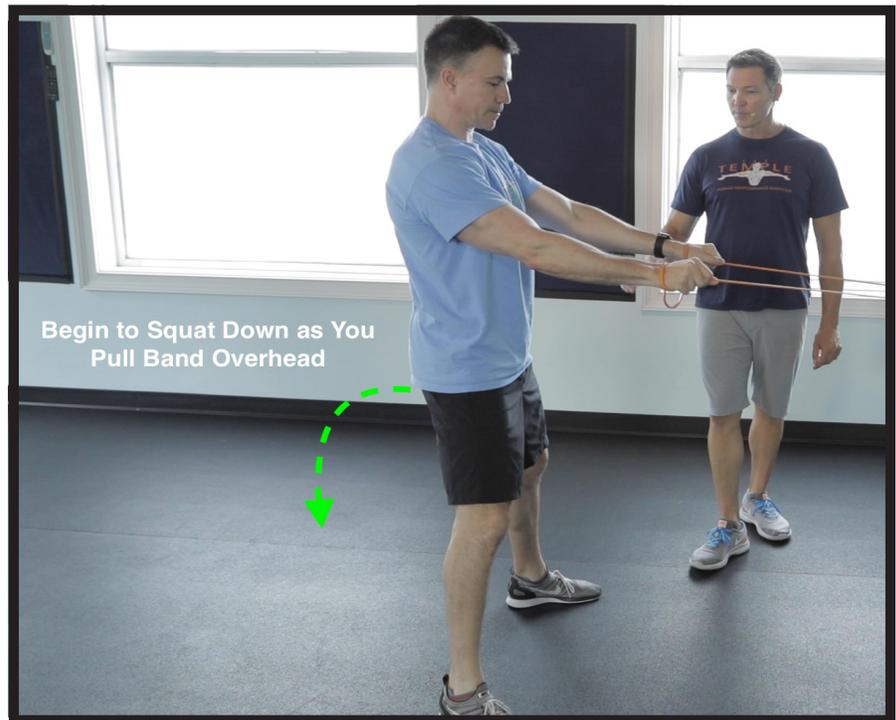
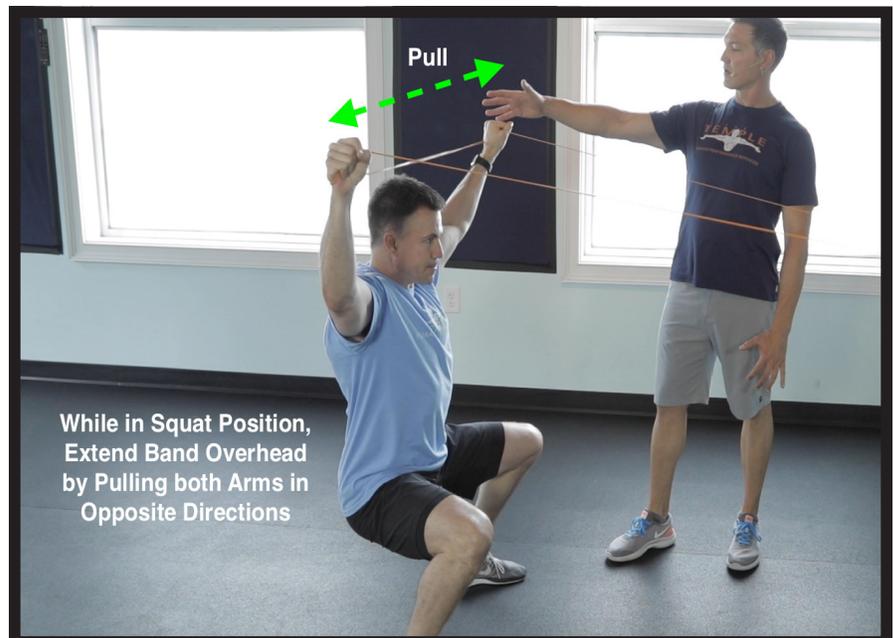


Image G (Neuro-Modifier)



ASSESSMENTS

TECHNIQUE 5: Reverse Fly Squat	
Proper Leg width for Squat	Yes No
Ability to sit back into heels while maintaining an upright Head/Chest/hip relationship	Head/Chest Pos. Forward Y N Back Y N
Ability to engage the floor with both legs during full Range of Motion	Yes No R Lat. Deviation: Y N L Lat. Deviation: Y N
Can Client sit back parallel to floor or below?	Yes No
Ability to keep shoulders Packed and elbows abducted on Row with wrist in front of elbow	Shoulders Packed: Yes No Elbows Abducted: Yes No
Neuro-muscular Endurance and stability	Weak 0 1 2 3 Strong
Maintains Proper breathing	Yes No
Pain / Discomfort During Technique	Yes No

NOTES

Exercise 6: Single Arm Step-Through Press

Materials Needed:

Level 1 or 2 Resistance Bands, PKT Yoga Mat, PKT Balance Pad

Goal:

This dynamic spiral spring system strengthener targets the trans-abdominal column and improves weak vestibular, and motor patterning. This technique will target the shoulders, Core, spine, hip, and ankle stabilizers as it creates strength in the stance leg. (Concentrate on controlling the forward, concentric, and backward the eccentric motion while maintain proper head, hip alignment).

Assessment:

The shoulders should stay in the “packed” position during the pushing movement. Look for rotational instability in the trunk on the stance leg on the eccentric phase of the movement. This technique will show core and unilateral stance weakness which could be coming from hip or lumbar neuromuscular instability.

Technique:

Image A: Anchor the band behind you to a wall mount or secure surface. Position your elbows like you’re going to do a push-up. Take a deep breathe as you Step forward and press the band straight out in line with your chest.

Image B: As you drive through the stance leg, stepping forward with your right leg, press the resistance band away from your chest with a forceful exhale.

Image A (Start)

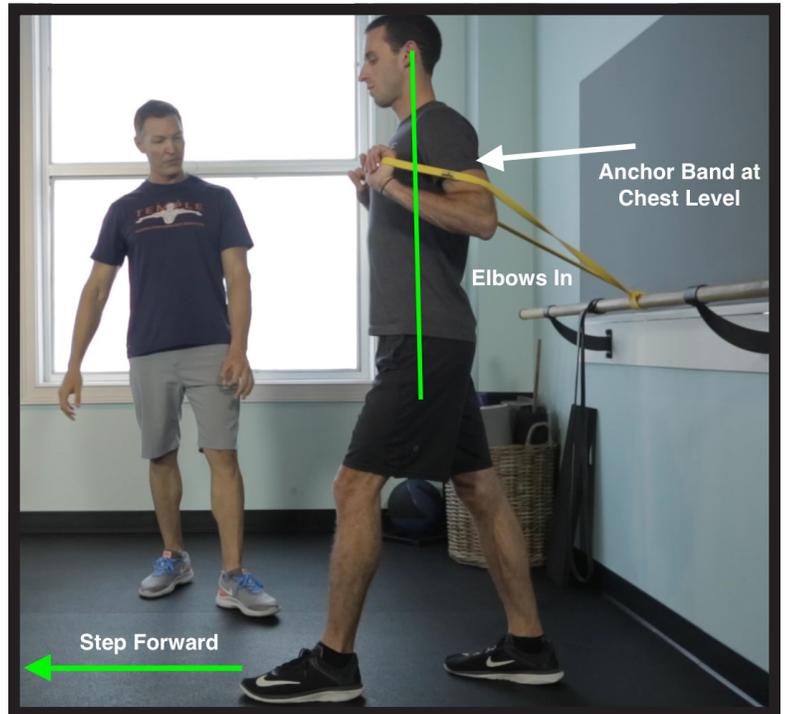


Image B (Technique)

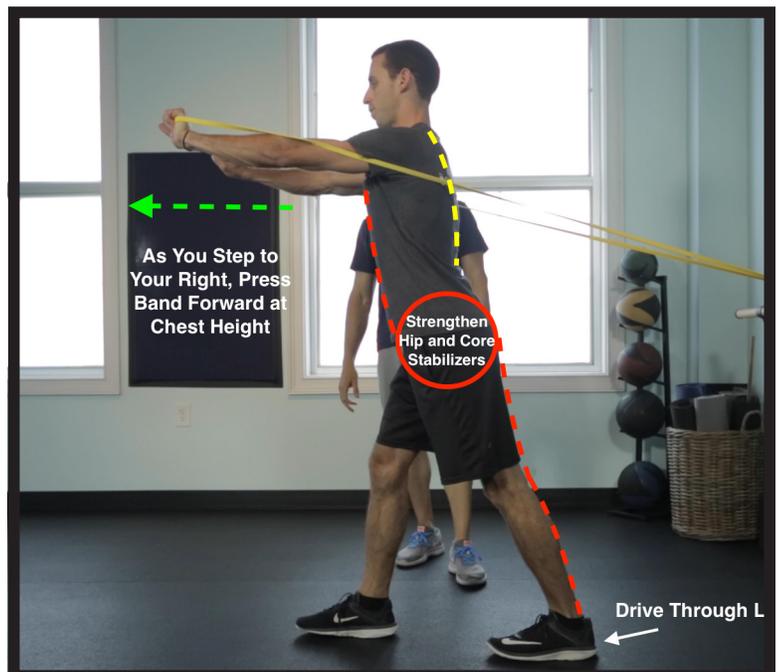
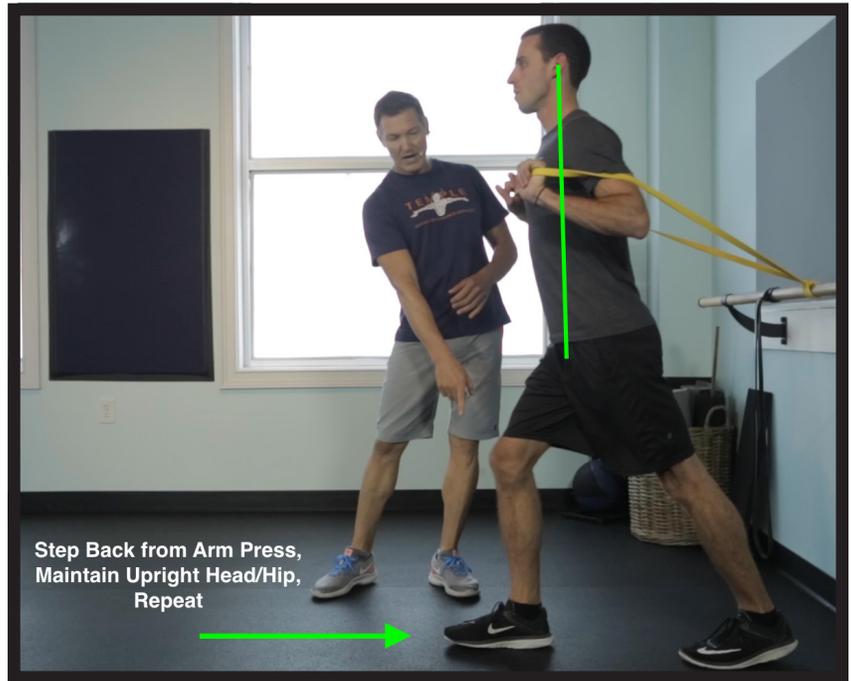


Image C: As you step back Resist the eccentric motion with your left leg and maintain control of the rotational forces through your trunk. Repeat on opposite side.

Image C (Technique)



Movement:

Action: Global Extension and Flexion with a Uni-lateral leg mobilization. You will create bi-lateral neuromuscular lengthening and joint mobility in the upper and lower body while lubricating and restoring joint play and nerve glide.

Image D: Using counter or barre, place your hands on bar with your palms down. Step forward with left leg and keep the right foot planted. As you begin to look down pull the left foot into dorsiflexion, (up), and allow your chest and hips to flex until you feel tension in the shoulders and posterior fascia of the left leg. Stay within the barrier with this graded exposure. This can put tension on the spinal cord and sciatic nerve.

Image D (Movement)



Image E: As you look up with eyes, press back with you heels into the floor externally rotating your shoulders as you open your hips, abdominals, chest, shoulders, forearms, and hand. Switch legs Repeat 4 to 6x.

Neuro-Modifier:

Action: Use a PKT handle to help with this single arm step through press. This will challenge your Right and Left cross patterns as it strengthens the stance leg, Core, and Shoulder girdle.

Image F: Secure the band around chest height. Step away to take the slack out of the band. Holding the band in your left hand with elbow out and chest up, step forward with the right leg.

Image G: As you step forward engaging the right leg, driving through the heel, press your left hand forward, locking out your arm and forcefully exhaling. Resist the eccentric motion through your stance right leg and left hand as you return back to the starting position.

Reps: 2 x 8-15 reps

Notes:

Image E (Movement)

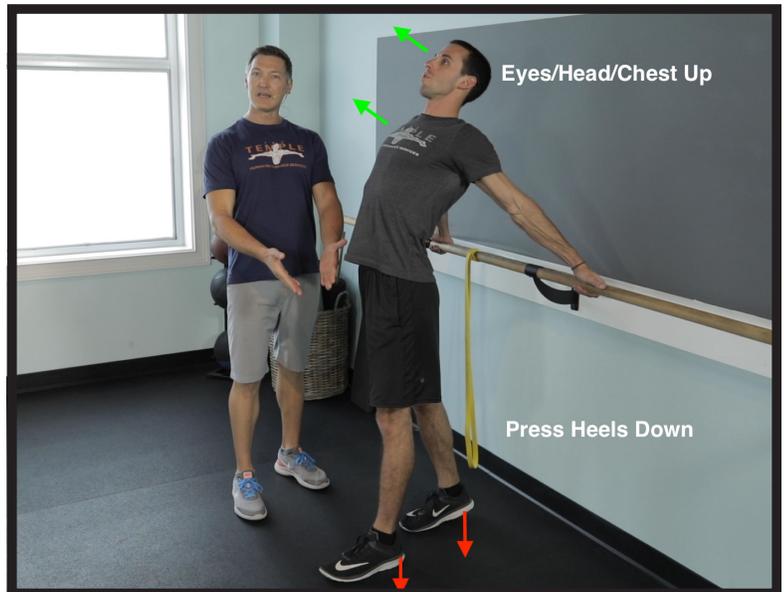


Image F (Neuro-Modifier)

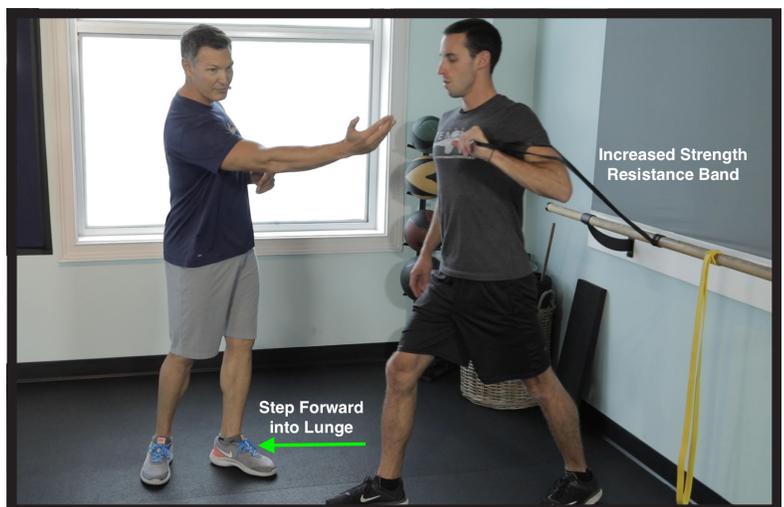
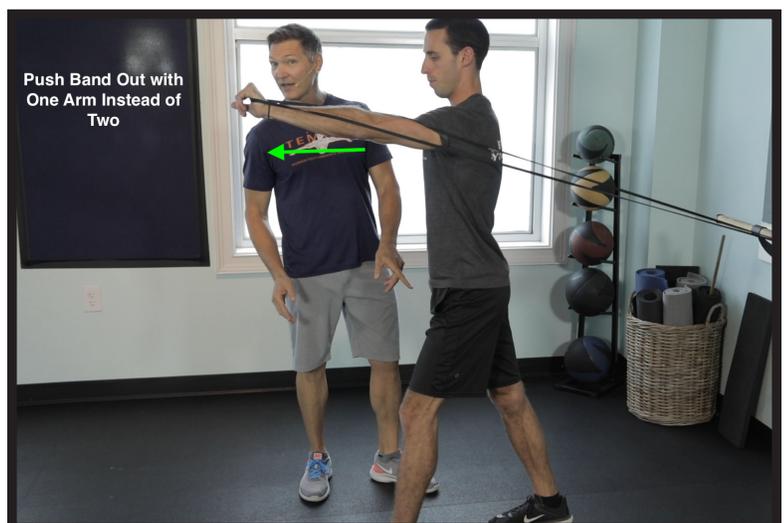


Image G (Neuro-Modifier)



Exercise 7: Lateral Side Step Lunges with Band

Materials Needed:

Level 1 or 2 Resistance Bands, PKT handle, PKT Yoga Mat, PKT Balance Pad

Goal:

This functional lateral strengthening technique targets your intrinsic stabilizers of the ankles, knees, hips, and provides dynamic stability to the Hip, Core, spine, and ankle. The band adds torsional stress to the spine and legs and will help your left and right Motor balance as you learn to control the movement and stimulate new neural pathways and wake up old ones.

Assessment:

Look for the non dominance in balance and lateral hip weakness in your transitions. The lack of ability to maintain upright head and chest position during side lunge transition could be from lack of thoracic, hip, and shoulder mobility . Note differences side to side in Core stability, mobility in thoracic spine, hips, and ankles.

Technique:

Action: Attach Level 1 (yellow) or Level 2 (green) band to a bar, or wall anchor at chest height.

Image A: Step out facing perpendicular to the bar and removing the slack out of the resistance band. Try to maintain proper Head, shoulder, and hip alignment before starting.

Image B: Side step laterally into a side lunge transitioning to your weight to the outside leg while maintaining control as you keep your shoulder depressed, (Packed Position), and band secured to chest.

Image C: Once transitions onto your outside leg, try to balance for 1-2 seconds. Resist the band as you transition back into your opposite leg and balance for 1-2 seconds. Do these lateral transitions with strict form. Forcefully breathe out on the stance holds. After one side is complete turnaround and do opposite side.

Image A (Start)

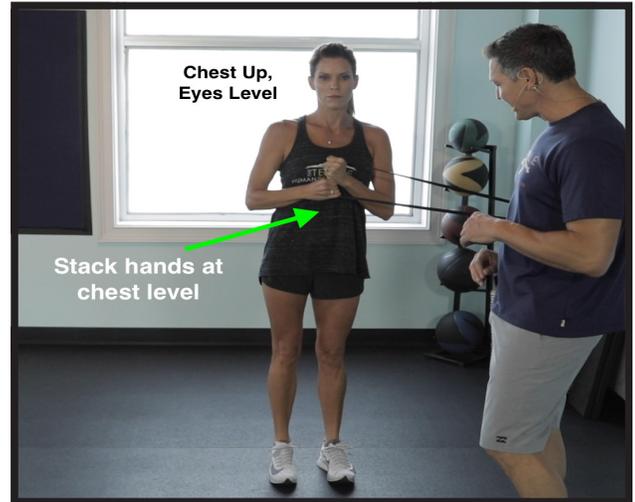


Image B (Technique)

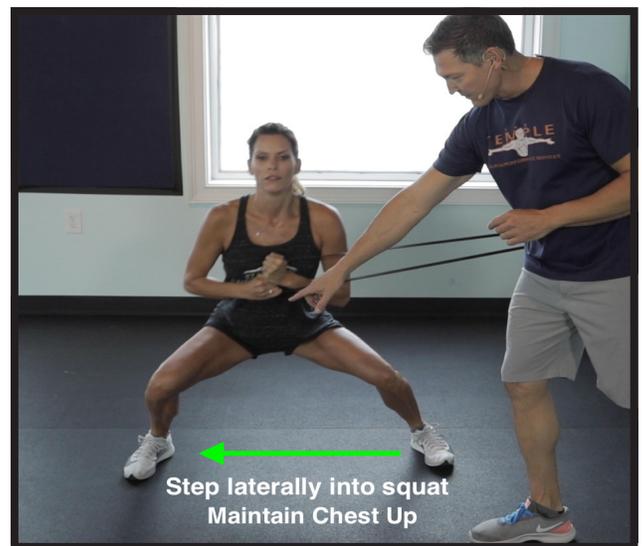
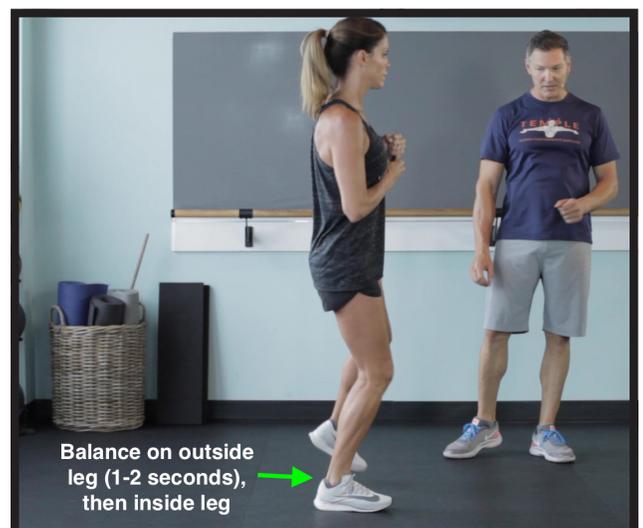


Image C (Technique)



Movement:

Action: Pigeon Toed Bar Reaches with Spinal rotations.

Image C: Using a balance bar/ chair back/counter top place hands on top of bar palms down and walk back away from bar while internally rotating your legs, (pigeon toed). Flex forward from your hips, dropping your head between your arms as you press your hips back over your heels and lengthen your spine. Make sure to maintain a straight spine during movement.

Image C (Movement)

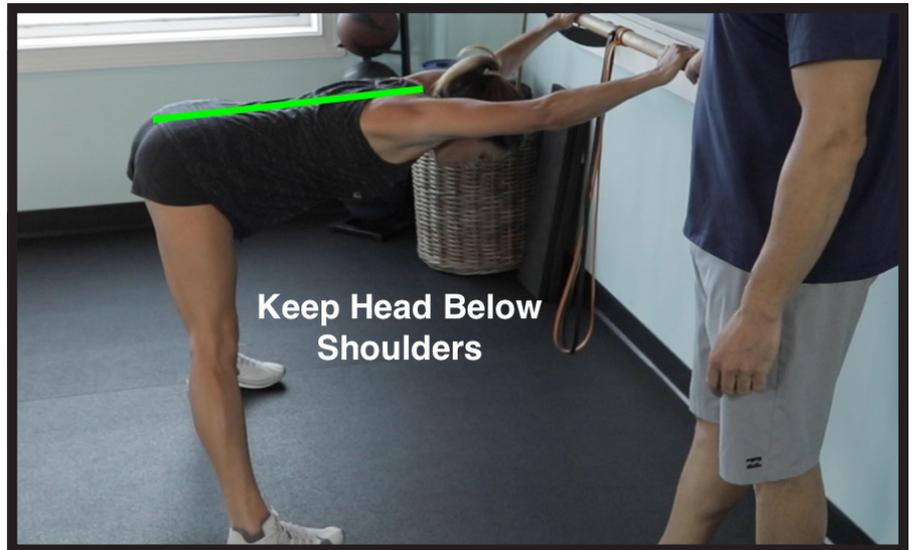


Image D (Movement)

Image D: Take 1 arm off the bar and reach and grab opposite ankle, take a deep comfortable breathe. Look into movement with eyes. Reach back up to the bar and repeat with opposite side. Make sure to exhale during your reaches.

Image E: Repeat stretch to other side.



Image E (Movement)



Neuro-Modifier:

Action: Lateral side stepping Palloff press

Image F: Keep hands stacked at chest level with Level 1 or 2 PKT Arm Band.

Image G: As you side step transitioning from inside to outside leg, resist as you press the band out in front of your chest and forcefully exhale. Make sure to keep shoulders and hips square and your hands stacked and arms locked out in front of you during the modifier. Use a forceful resisted exhalation the palloff presses.

Image H: Now, balance on your outside leg for 1-2 seconds. Resist the torsional stress of the band as you press on each transitional step. Bring band back to your chest, as you transition back to your inside leg repeat movement.

Reps: 2 x 12-15 reps

Notes:

Image F (Neuro-Modifier)



Image G (Neuro-Modifier)

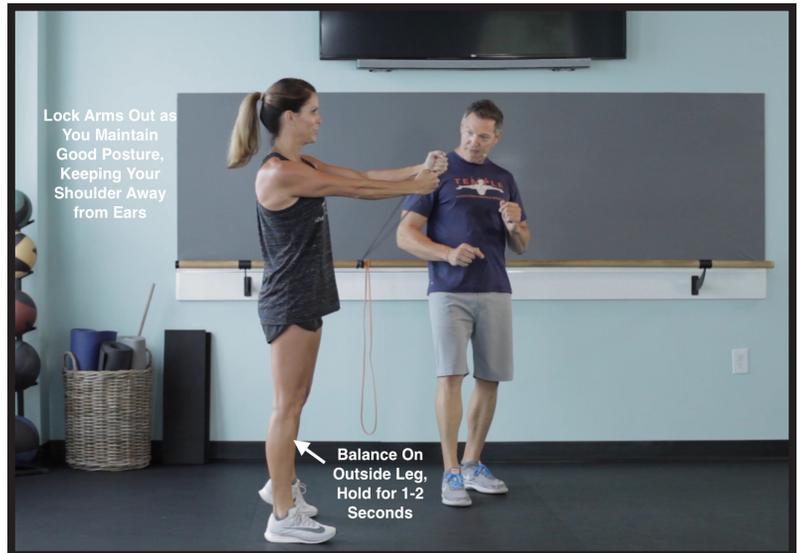


Image H (Neuro-Modifier)



Exercise 8: Bilateral Patterning Pull-Push (2 Hands)

Materials Needed:

Level 1 or 2 Resistance Arms Bands, PKT
Yoga Mat, PKT Balance Pad

Goal:

To create balance and global strength in all planes of motion: frontal, sagittal, and transverse while improving kinesthetic awareness, posture, and weak motor patterns. The added resistance band helps you learn to control and ingrain new neural pathways to improve non dominant cross patterning.

Assessment:

This technique will expose your motor and vestibular weaknesses, look for loss of your balance or stability while you rotate and transition from one side to your other. Note the non-dominant patterns. This exercise will show problems in stabilizing muscle groups in your body that are important for posture. Watch for alignment issues with the head, shoulder, and hips. Make sure you can rotate a full 180 degrees to each side under control.

Technique:

Action: Pull-Push with Rotations using a resistance Band.

Image A: Anchor Level ,2, or 3 band at chest level to bar, wall mount, door, or tree. Attach PKT handle to bands. Hold handle with both hands as you take out the slack and step back into a (R/L) leg lunge.

Image B: Take a deep breathe and pull the bands to your chest. Keep your head and chest up as you rotate your entire torso (head/shoulders/hips) together. Transitioning 180 degrees and transferring weight into your opposite foot/leg.

Image A (Start)

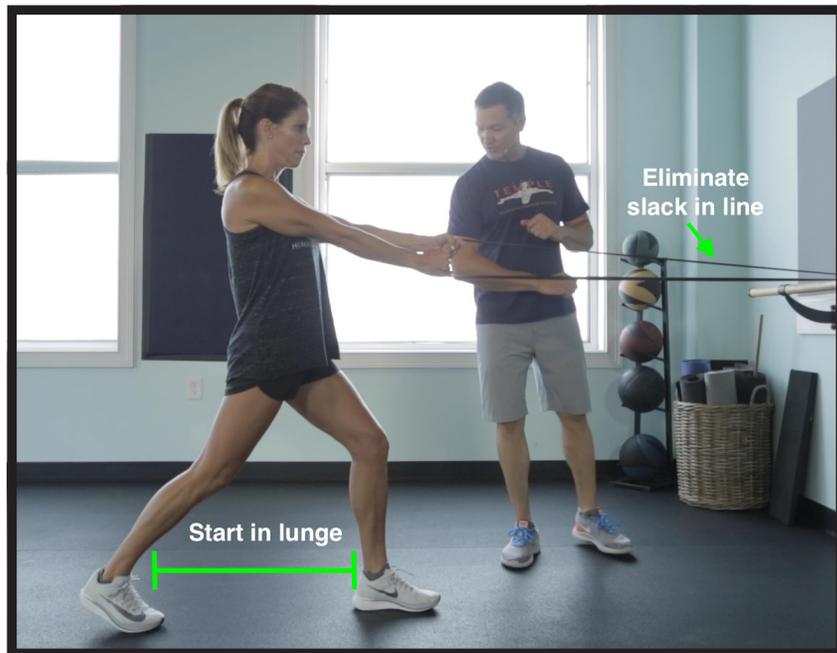


Image B (Technique)

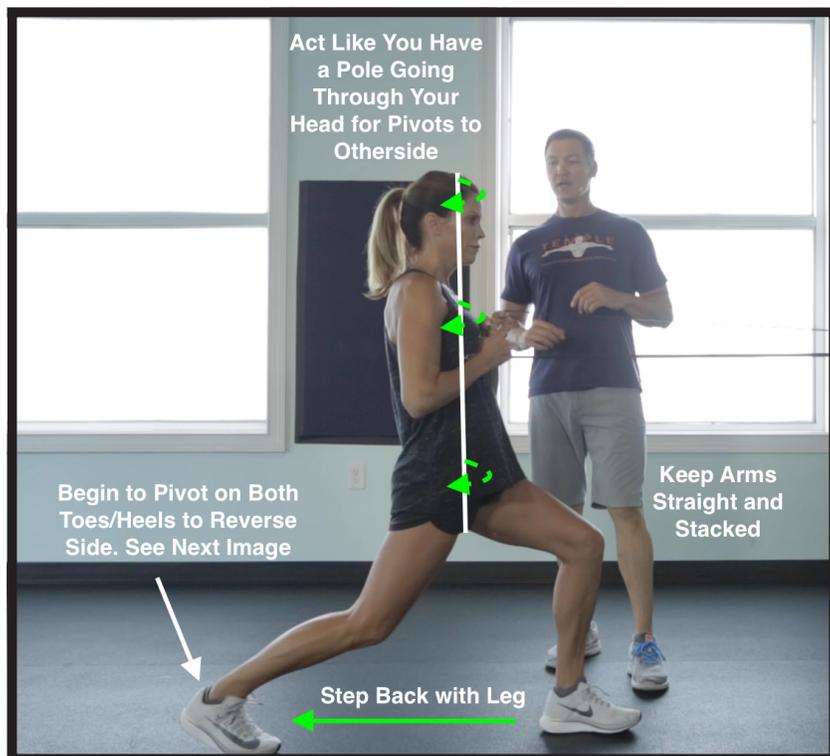


Image C (Technique)

Image C: As you dynamically stabilize your Core, transition your weight to your right leg, keeping hands stacked at chest level. Try to keep your weight evenly distributed between legs.

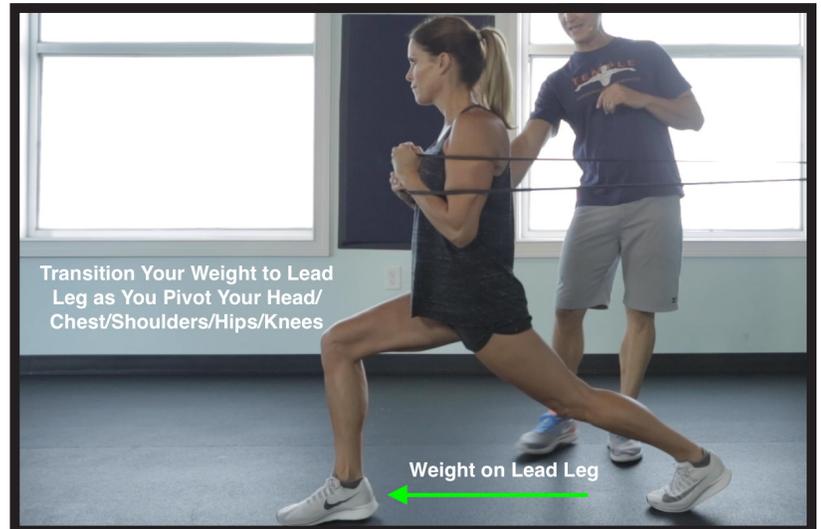


Image D (Technique)

Image D: Forcefully exhale as you push the band away from your chest stabilizing in your Shoulders, Core, Hips, and Ankles. Make sure that you create enough distance between your legs to improve mobility, stability, and strength. After the press return the band back to your chest and pivot again back to the starting pull position. Be sure to maintain control of the entire movement.

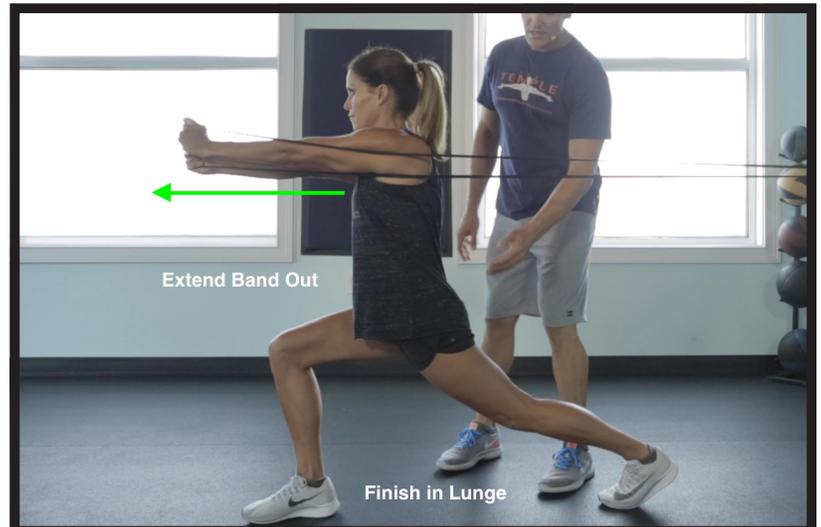
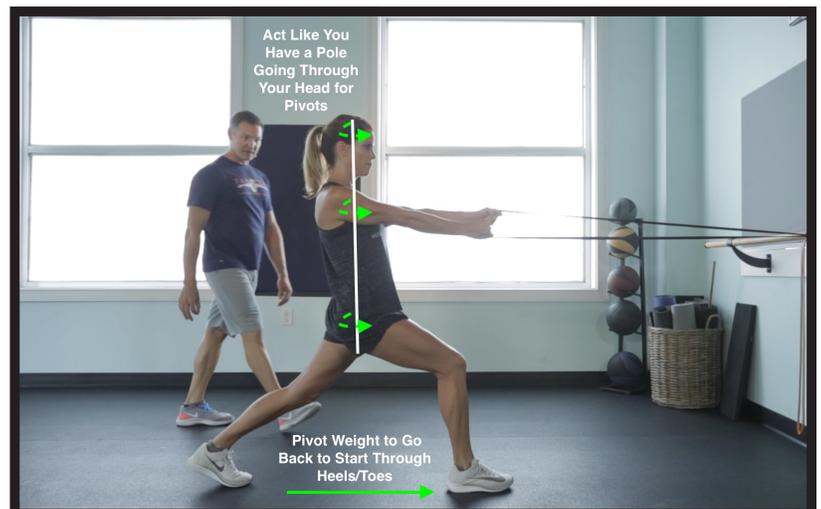


Image E (Technique)

Image E: On the return, bring the band back to your chest and pivot 180 degrees, again transitioning your weight back to the opposite leg where you started back into a lunge. Try to do this for 8 to 12 repetitions on each side.



Movement:

Action: Upper/Lower Global flexion and extension neuro-fascial Glides using a Barre. Use this motion in between sets to free up any restrictions in your neuro-fascial system and improve your balance.

Image F: Face away from bar/chair/countertop. Place your hands behind you, palms down on top of the bar. Step forward with 1 leg into a mini straddle position. Do not step away from bar too far, over extending your arms. This graded exposure should be a pain free movement.

Image F (Movement)



Image G (Movement)

Image G: From the standing position exhale as you look down. Keep your weight in your opposite foot while you try to keep your front leg straight. Actively pulling your foot towards your face. Be sensitive to the neural tension in the leg as you keep your weight distributed between both feet and feel the graded exposure, (GEST), all the way into your toes.

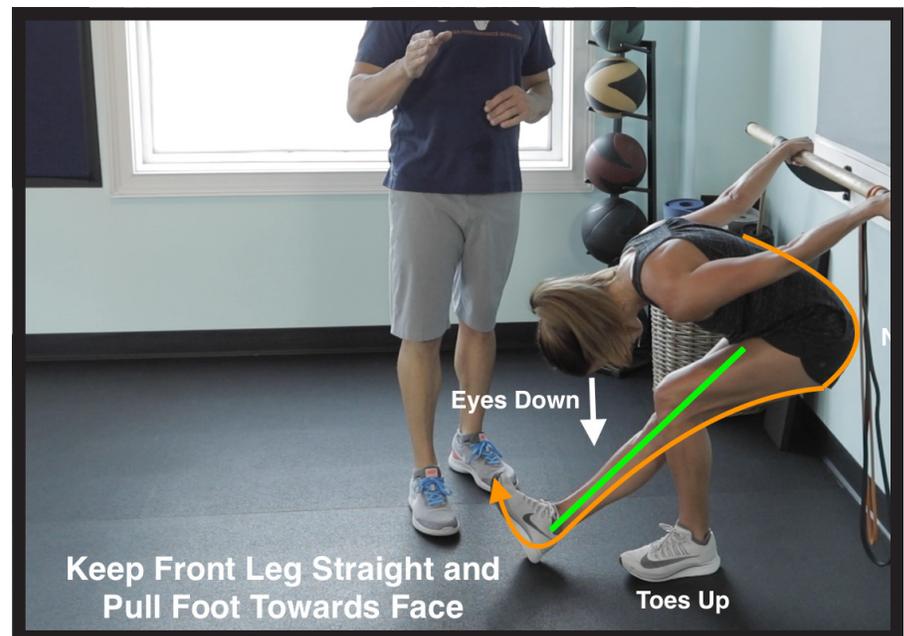


Image H (Movement)

Image H:

Exhale as you transition from looking down to looking up. Extend your back knee and place your weight into your back heel as you look up and lift your chest towards the sky. Try to straighten your arms and hands resting on the bar as you Rock back into your heel. Feel the stretch in your chest, shoulders, abdominals, hips, biceps, forearms, and throat.



Neuro-Strength Modifier:

Action: Single Arm Band Pull-Push with 180 degree rotations.

Image I: For a strength modifier use Level 1 (Yellow) or Level 2 (Green) band with PKT Handle one arm at a time. For increased difficulty, use 2 bands and PKT handle. Grab a handle or wrap resistance band around the wrist. Take the slack out of the band and step back into a lunge. Note: When you hold the band in the same hand as your step back lunge leg, you will be working your R to L posterior spiral system. If you hold the band in the opposite left hand you will work your anterior spiral system.

Image I (Neuro-Modifier)

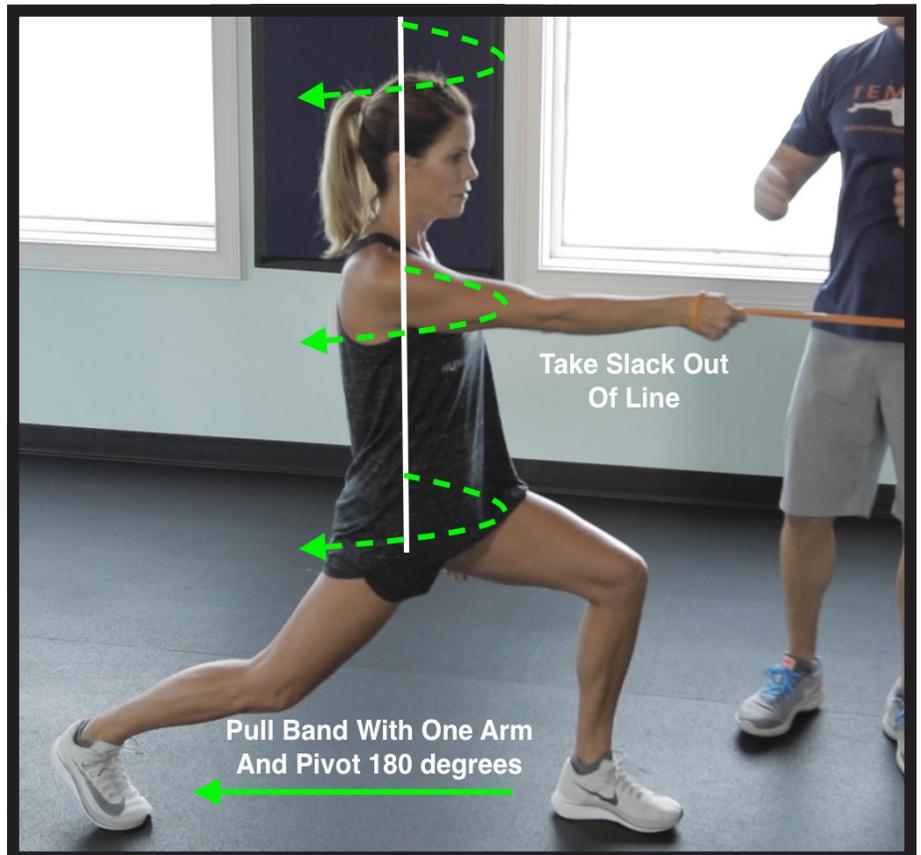
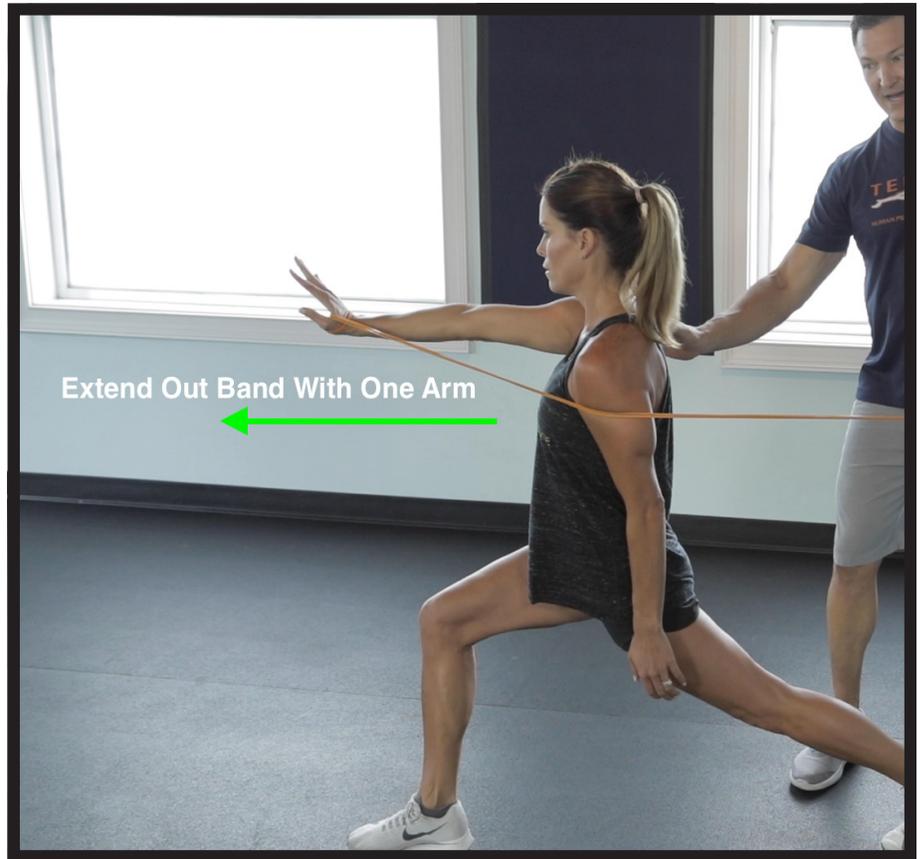


Image J (Neuro-Modifier)

Image J: Control the rotation as you pivot pull the band across your body and shift your weight into opposite leg. Lock your arm out as you extend the band out and forcefully exhale. Bring your arm back to your chest and pivot in one piece back to the original starting position. Try this with both arms and rotate in both directions. This will really challenge your weak motor and vestibular centers as well as improving your dynamic stability, coordination, and strength.

Reps: 2 x 8-15 reps (each arm rotating both ways)

Notes:



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