

HOME BASED STRENGTHENING ROUTINE

Regularly performing these preventative strengthening and range of motion exercises can help to reduce the risk of injuries at work.

This resource provides descriptions for the following exercises:

- Side Bridge with Leg Lift
- Stability Squat
- Plank and Mountain Climbers
- Arm Raises
- Directional Scapular Strengthening
- Bear Crawl

Refer to Video for more information.

SIDE BRIDGE WITH LEG LIFT

Purpose: Improve pelvic stability and strengthen the gluts.

Hold Side Bridge 30 seconds then complete 10 leg lifts.

- Lie on the side with elbow positioned under shoulder and lower knee bent.
- Prop yourself on the elbow to go into a side plank position and hold, keeping torso, hips and knee in a straight line.
- Squeeze your gluteal muscles to stabilize at the pelvis.
- *Hold this position for 30 seconds.*
- From this position, lift the top leg to abduct the hip. Keep foot pointed forward and leg directly over the other leg, not in front.
- *Complete 10 leg lifts to the side.*
- Ensure your pelvis does not drop or tilt backwards during



Progression:

- Fully extend bottom leg so that lying on side from foot to elbow.
- Hold this side plank for 30 seconds then complete 10 leg lifts to the side



STABILITY SQUAT

Purpose: Improve stability of the lower limb. Strengthen the gluts, and quads.

- Complete 25 squats.
- Wear backpack containing 50 lbs to replicate weight of lifting rods and tubes.
 - Stand with your feet facing forward at hips width.
 - Tie elastic around your knees and squeeze buttocks together to turn your knees outward.
 - Align Knee cap with 2nd or 3rd toe.
 - Lower your body to a squat position by bending your hips and knees keeping your back slightly arched (matching the calf angle).

Progressions:

- Add weight to backpack (80lbs).
- Increase squats reps goal to reach 30-35.
- Improve quality of movement by reducing knee shakiness while squatting.



PLANK AND MOUNTAIN CLIMBERS

Purpose: Improve pelvic stability along with strengthening the hip flexors and lower abdominals.

- Ensure a neutral lumbar spine lordosis (inward curvature of the lower back) is sustained.
 - Avoid rotating at pelvis when bringing leg forward.
 - Keep shoulders back and down to improve scapular stability.
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- Start in a plank position with elbows positioned slightly behind shoulders.
 - Keep shoulders down and back.
 - Recruit the deep core muscles by contracting 30%.
 - Avoid allowing hips to dip down or come up. A neutral position should be sustained to ensure a normal lumbar lordosis is held.
 - Hold plank for 10 seconds.
 - Bring one knee towards the same sided elbow.
 - Ensure to sustain neutral lumbar lordosis by not letting the hips drop down or come up.
 - Do not touch moving foot to the floor during movement.
 - Return foot back to starting position and repeat on other side.
 - Complete 30 climbers per side in a plank position.

Progression:

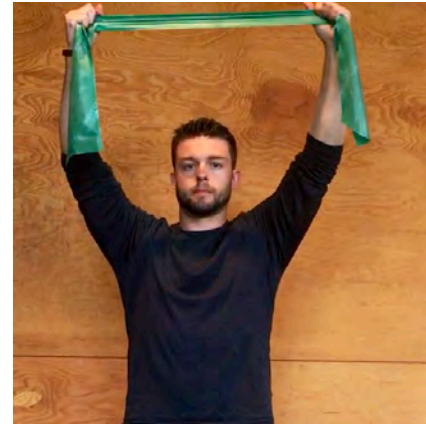
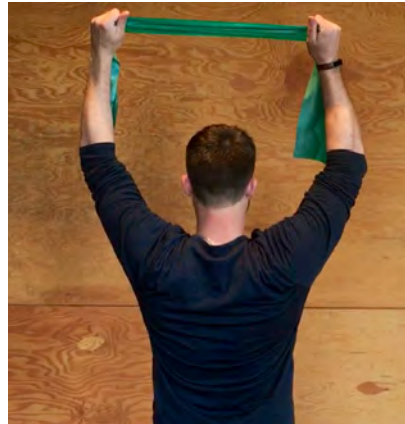
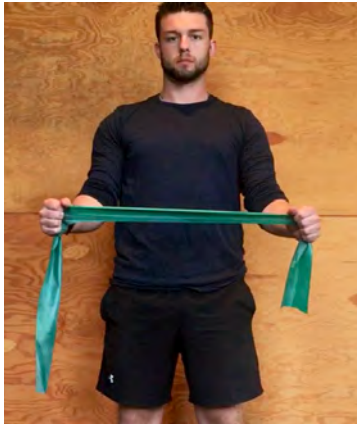
- Increase plank hold (i.e. 30 seconds) prior to starting mountain climbers.



ARM RAISES

Purpose: To improve shoulder stability with overhead lifting

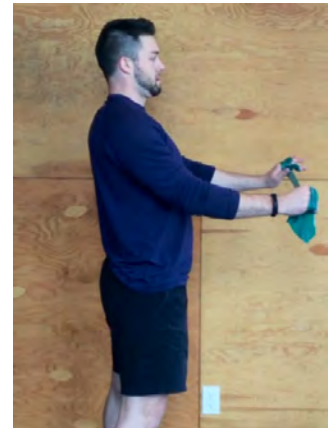
- Complete 3 sets of 15 arm raises
- Start with hands at waist height and apply a steady pull on both ends of the elastic
- Squeeze the shoulder blades together, ensuring the shoulders remain back and down throughout the exercise
- Keep your chin slightly tucked and slowly raise your arms up above head level maintaining the stretch on the band
- Avoid slouching or raising the tops of the shoulders upwards during this task while raising the arms.
- If struggling, try this exercise with your back touching the wall to provide feedback to maintain a good shoulder posture of being back and down.



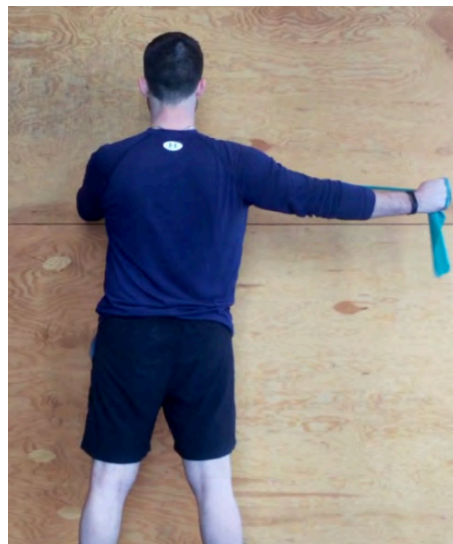
DIRECTIONAL SCAPULAR STRENGTHENING

Purpose: Improve scapular strength and shoulder girdle position when performing upper body tasks such as reaching for heavy tools and hammering.

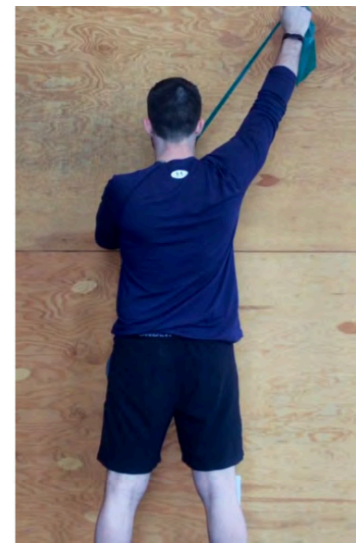
- Ensure to keep shoulders down and back and chin slightly tucked to recruit the scapular stabilizers and optimize shoulder girdle positioning.
- Stand in a good upright posture facing the wall.
- Apply a Chin Tuck.
- Keep shoulders back and down. Engage muscles at the bottom of shoulder blades to hold position.
- Maintaining that position, raise both arms to chest level.
- Hold one arm steady while you slide the other hand against the wall out into the short arc movements as below:



Downwards for 20 reps



Straight Out for 20 reps



Upwards for 20 reps

Progression:

- Stand back a foot so hands are not resting on wall and repeat the tasks.

BEAR CRAWL

Purpose: Improve scapular and pelvic stability while moving in multiple directions.

- Ensure shoulders are kept down and back. Shoulder blades should not protrude upwards.
- Keep the deep core muscles contracted 30%. Sustain a neutral lumbar lordosis posture.

- Tie a theraband between the hands at shoulder width with moderate tension.
- Start on hands and toes. Hips and knees can be slightly bent.



- Move one arm upwards and followed by the same side leg. Repeat this on the other side.
- Complete 10 crawls forward and then backwards.



- Complete 10 crawls side to side.
- Moving arm to the side followed by the same side leg.

