

STRETCH BEFORE STRAIN

Routine 1 Guidebook

Make Stretching a Part of Your Daily Routine

The Stretch Before Strain Program is an on-site 10-15 minute daily stretching routine. The stretches diagramed can prepare the body for everyday work stresses. This is done by stretching and strengthening specific muscles commonly associated with strains, sprains and ergonomic injuries. If performed correctly and on a regular basis, these simple stretches may reduce the incidences of common muscle injuries.

Initially, your safety officer/coordinator should conduct an introduction to the program and overview of strains and sprains. Subsequently, a designated Trainer should then lead the daily stretching program, at the start of the shift, by using the examples provided.



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STRETCH BEFORE STRAIN

Benefits of Stretching

- Increases and maintains complete range of motion of the joint.
- Improves capacity for activity. Stretched muscles require less energy for completion of movements. Contracted muscles waste energy.
- Promotes general body relaxation and reduces emotional stress.
- Reduced severity of painful menstruation (dysmenorrhea) in females.
- Relieves muscle-joint stiffness & soreness associated with the aging process. Light Exercise promotes a better supply of blood and oxygen to the muscles than complete rest.
- Increases musculotendinous (pertaining to the muscles and tendon attachments) elasticity. Muscle can be stretched 1.6 times its resting length before it tears.
- Elongates the fascia, thereby improving posture and symmetry.
- Helps prevent joint sprains, muscle strains or tears and aids in preventing re-injury to previous joint and muscle trauma.
- Reduces tightness, which may contribute to pain, spasm or cramping.
- Helps provide greater potentials of physical and athletic skills.
- Provides an important adjunct toward recovery during the process of Rehabilitation.
- Offers unique opportunity for spiritual growth by providing quiet intervals for thought, meditation or self-evaluation.



Source: Head To Toe - A Manual of Wellness & Flexibility, Written by Bielawski & Weinert

STRETCH BEFORE STRAIN

Stretching Guidelines

- **Warm up.** Make sure muscles are appropriately warmed up before you stretch.
- **Focus on major muscle groups.** When you're stretching, focus on major muscle groups such as your calves, thighs, hips, lower back, neck and shoulders. Also stretch muscles and joints that you routinely use at work or play. **Make sure that you stretch both sides.** For instance, if you stretch your left hamstring, be sure to stretch your right hamstring, too.
- **Don't bounce.** Stretch in a smooth movement, without bouncing. Bouncing as you stretch can cause injury to your muscle.
- **Hold your stretch.** Hold stretches for 15–30 seconds. Stretch to the limit of movement, not the point of pain. The limit of movement is referred to as the “endpoint” of the stretch.
- **Breathe.** Keep your breathing slow and rhythmic while holding stretches. Exhale slowly as you extend to the endpoint of the stretch. As you exhale, the diaphragm and thoracic-cavity muscles are relaxing, thus promoting a more effective relaxation of the target muscles.
- **Don't aim for pain.** Expect to feel tension while you're stretching, not pain. If it hurts, you've pushed too far. Back off to the point where you don't feel any pain, make sure the stretching technique is correct then hold the stretch. It may be necessary to try another position or a different stretching exercise (or method).
- **Repeat the stretch.** 2–4 repetitions is optimal, as further repetitions do not provide additional benefits.
- **Make stretches sport specific.** Some evidence suggests that it's helpful to do stretches tailored for your work, sport or activity. If you play soccer, for instance, you're more vulnerable to hamstring strains. So opt for stretches that help your hamstrings.
- **Bring movement into your stretching.** Gentle movement can help you be more flexible in specific movements. The gentle movements of tai chi or yoga, for instance, may be a good way to stretch. And if you're going to perform a specific activity, such as a kick in martial arts or kicking a soccer ball, do the move slowly and at low intensity at first to get your muscles used to it. Then speed up gradually as your muscles
- **Keep up with your stretching.** Stretching can be time-consuming. But you can achieve the most benefits by stretching regularly, at least 2-3 times a week. Preferably 5-7 times a week. If you don't stretch regularly, you risk losing any benefits that stretching offered. For instance, if stretching helped you increase your range of motion, and you stop stretching, your range of motion may decrease again.



STRETCH BEFORE STRAIN

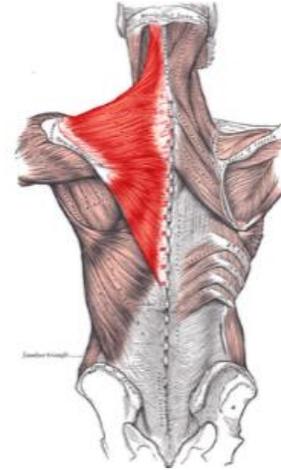
Routine 1

1. Side Bending Neck Stretch

- In a standing position, with shoulders relaxed, reach right ear to right shoulder. Hold for 10-15 seconds then return head to a neutral position.
- Repeat 3-5 times on each side



Muscles stretched: *Upper Trapezius, Levator Scapulae*

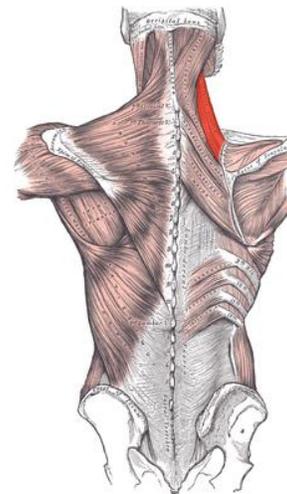


2. Forward Rotation Neck Stretch

- In a standing position, place left hand behind neck. With shoulders relaxed, turn head 45 degrees to the right and tip head forward and down toward right hip. Hold for 15-30 seconds, then return to a neutral position.
- Repeat twice on each side



Muscles stretched: *Levator Scapulae*



STRETCH BEFORE STRAIN

Routine 1

3. Neck Flexion

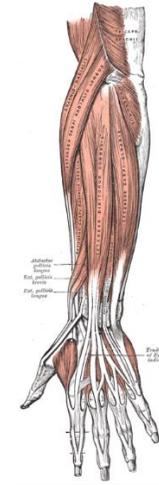
- In a standing position, with shoulders relaxed, tip head forward to chest. Hold for 10-20 seconds.
- Repeat 3-5 times



Muscles stretched: *Upper Trapezius*

4. Wrist Extension Stretch, Palms Away

- Extend left arm with palm facing down. Grasp fingers of left hand with right hand. Gently pull left hand towards body while keeping left arm straight. Hold for 15-30 seconds.
- Repeat 3-5 times on each side



Muscles stretched: *Extensors of the arms*

5. Arm Across Chest Stretch

- Raise right arm to shoulder height. Grasp right elbow with left hand and pull arm across body. Hold for 20-30 seconds.
- Repeat 3-5 times on each side



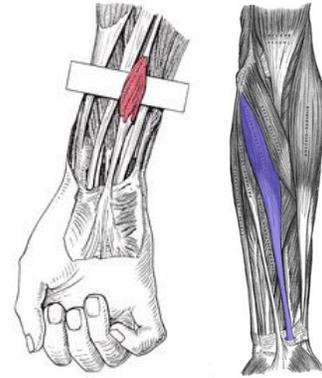
Muscles stretched: *Deltoid*

STRETCH BEFORE STRAIN

Routine 1

6. Wrist Extension Stretch

- Extend left arm with palm facing away. Grasp fingers of left hand with right hand. Gently pull left hand towards body while keeping left arm straight. Hold for 20-30 seconds.
- Repeat 3-5 times on each side



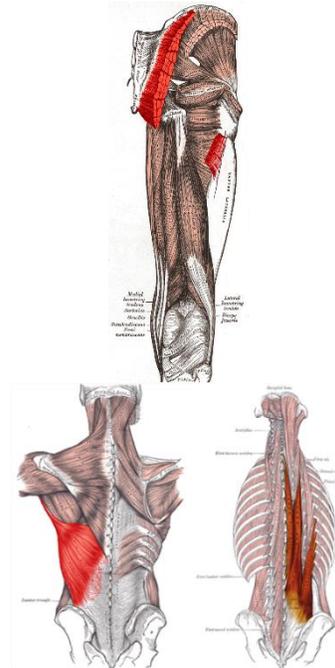
Muscles stretched: *Palmaris Longus, Flexors of the arm*

7. Gluteus Stretch

- In a standing position lift left leg and bend knee towards chest. Hold for 15-30 seconds.
- Repeat 3-5 times on each leg



Muscles Stretched: *Gluteus Maximus, Erector Spinae, Lower Latissimus Dorsi*



STRETCH BEFORE STRAIN

Routine 1

8. Standing Quadriceps Stretch

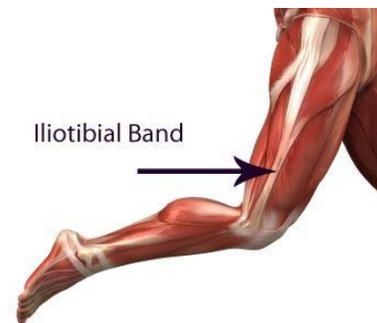
- In a standing position bend left leg at knee and hold ankle or foot with left hand. Keep body and hips straight while pulling left heel towards buttocks. Hold for 15-30 seconds
- Repeat 3-5 times on each side



Muscles Stretched: *Quadriceps*

9. IT Band Stretch

- In a standing position, cross right foot in front of left. Lean towards right side and hold for 15-30 seconds.
- Repeat 3-5 times on each side



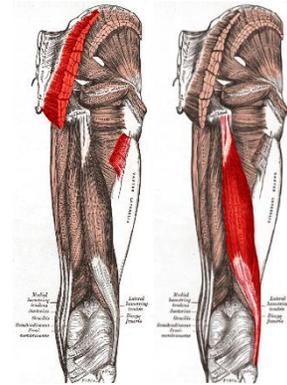
Muscles Stretched: *IT Band*

STRETCH BEFORE STRAIN

Routine 1

10. Standing Knee Flexor and Hip Adductor Stretch

- In a standing position with legs apart, bend trunk forward and reach arms behind knees. Hold for 15-30 seconds
- Repeat 3-5 times

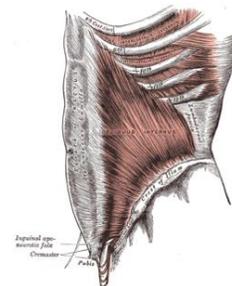


Muscles Stretched: *Gluteus Maximus, Hamstrings, Adductors*

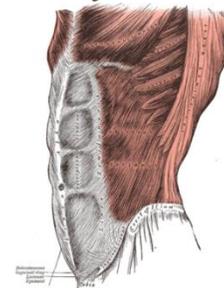


11. Side Bend Stretch

- In a standing position reach right hand toward the right foot, making sure to not bend legs or let hips roll forwards or backwards. Hold for 15-30 seconds
- Repeat twice on each side



Muscles Stretched:
Internal/External Oblique



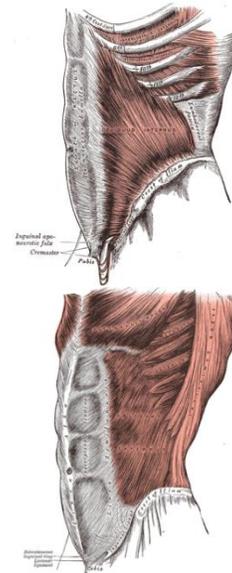
STRETCH BEFORE STRAIN

Routine 1

12. Standing Lower Trunk Flexor Stretch

- In a standing position with legs 2-3 feet apart and hands on hips, slowly arch back while pushing hips forward. Hold for 15-30 seconds

Muscles Stretched: *Rectus Abdominis, Internal/External Oblique*





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Routine 2 Guidebook

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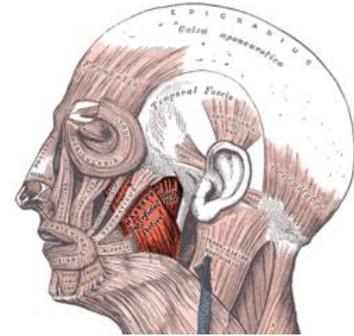
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STRETCH BEFORE STRAIN

Routine 2

1. Jaw Warm-Up

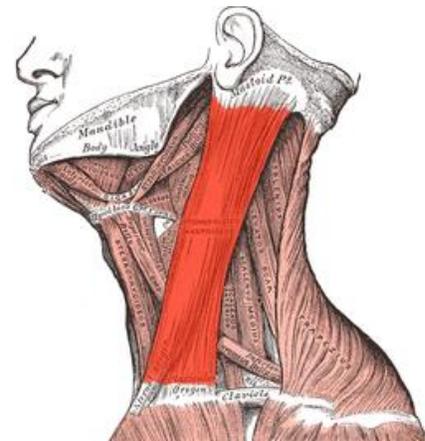
- Keep lips together and place tongue against roof of mouth. With tip of tongue against roof of mouth, slowly open mouth without overextending
- Repeat 3-5 times



Muscles stretched: Masseter

2. Neck Rotation

- In a standing position, gently rotate the head, to the left and right, with the chin adjacent to the shoulder.
- Repeat 3-5 times



Muscles stretched: Flexors of the arm

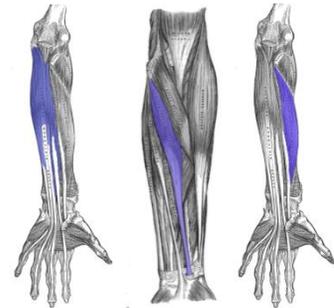
STRETCH BEFORE STRAIN

Routine 2

3. Wrist Flexor Stretch

- In a standing position, interlace fingers (palms facing away) and extend arms at head level. Hold for 15-30 seconds.
- Repeat 3-5 times

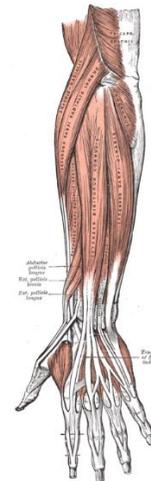
Muscles stretched: *Flexors of the arm*



4. Wrist Extension Stretch

- Extend left arm with palm facing down. Grasp fingers of left hand with right hand. Gently pull left hand towards body while keeping left arm straight. Hold for 15-30 seconds.
- Repeat 3-5 times on each side

Muscles stretched: *Extensors of the arms*

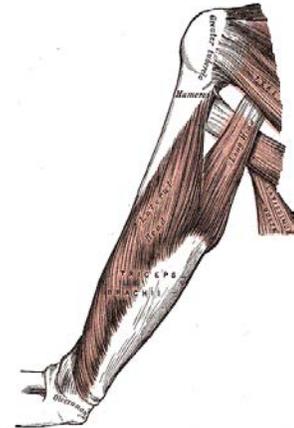


STRETCH BEFORE STRAIN

Routine 2

5. Triceps stretch

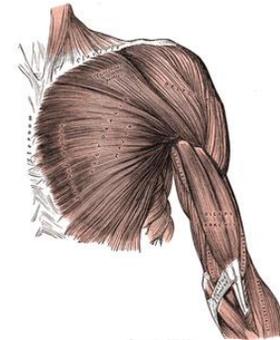
- Raise right arm behind head and hold neck. Hold right elbow with left hand pull towards head. Hold for 15-30 seconds.
- Repeat 3-5 times on each side



Muscles stretched: *Deltoid*

6. Anterior Chest Stretch

- Standing with legs hip distance apart, interlace fingers behind back. Slowly lift arms away from body. Hold for 15-30 seconds.
- Repeat 3-5 times on each side



Muscles stretched: *Pectoralis major, deltoid*

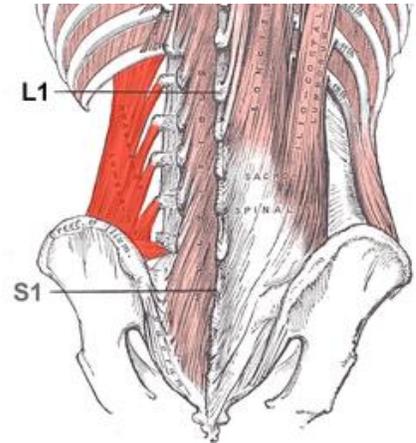


STRETCH BEFORE STRAIN

Routine 2

7. Standing Side Bend Stretch

- Start with feet shoulder width apart and arms by side.
- Turn left foot outwards 90 degrees. Raise arms to the side at shoulder level
- Slowly bend to the left, keeping hips in a forward facing position. Rest left arm on body and extend right arm upwards. Hold for 15 seconds
- Repeat twice on each side



Muscles Stretched: *Quadratus lumborum*

8. Standing Adductor Stretch

- Stand with legs about 3 feet apart. Turn left foot out 90 degrees. Slightly bend left knee.
- Lower right hip toward floor. Keep knee above ankle. Hold for 15-30 seconds.
- Repeat 3-5 times on each side



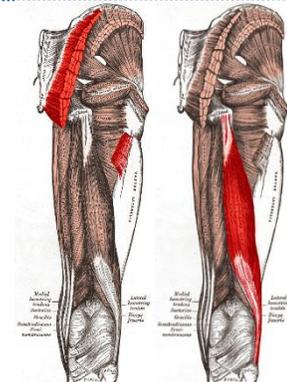
Muscles Stretched: *Adductor brevis, Adductor Longus, Adductor Magnus*

STRETCH BEFORE STRAIN

Routine 2

9. Standing Knee Flexor and Hip Adductor Stretch

- In a standing position with legs apart, bend trunk forward and reach arms behind knees. Hold for 15-30 seconds
- Repeat 3-5 times



Muscles Stretched: *Gluteus Maximus, Hamstrings, Adductors*

10. Standing Calf Stretch

- Standing with toes pointed straight, bring right leg back
- Bend left leg until a stretch is felt in the calf. Hold 15-30 seconds
- Repeat 3-5 times on each side



Muscles Stretched: *Gastrocnemius*



STRETCH BEFORE STRAIN

Routine 3 Guidebook

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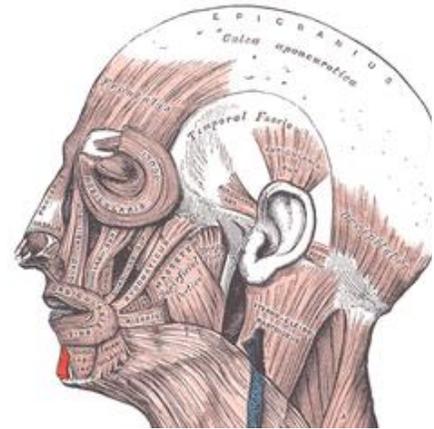
STRETCH BEFORE STRAIN

Routine 3

1. Eyebrow raise

- Open mouth, stick out tongue, raise eyebrows, and look upwards simultaneously. Hold for 5-10 seconds then relax
- Repeat 3-5 times

Muscles stretched: Various facial muscles



2. Chin Tuck

- With shoulders down and relaxed, retract chin. Make sure to keep head upright. Return to neutral
- Repeat 10 times

Muscles stretched: Posterior Cervical Muscles, Suboccipital Muscles, Sternocleidomastoid

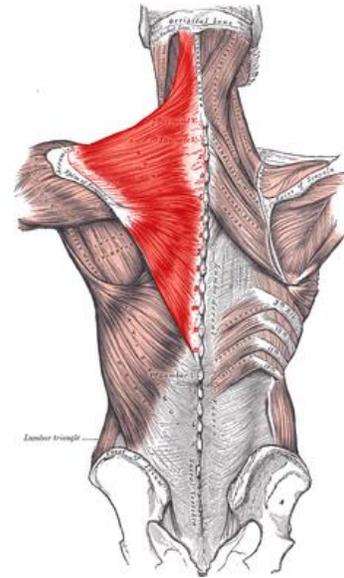


STRETCH BEFORE STRAIN

Routine 3

3. Upper Trapezius Stretch

- Place left hand on right side of body and push down with right hand.
- Tilt head to the right and slowly bend head forward. Hold for 10-20 second
- Repeat 3-5 times on each side

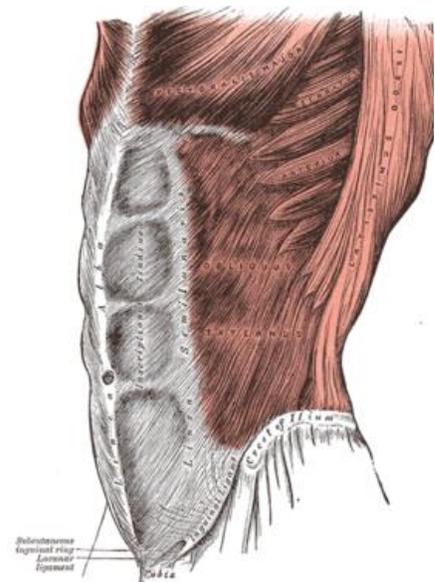


Muscles stretched:

Trapezius

4. Side-Bend Stretch

- Extend arms overhead, grasp hands with palms together toward ceiling. Bend upper body to the right while pulling left arm to the right. Hold for 15-30 seconds.
- Repeat 3-5 times on each side



Muscles stretched:

External Oblique

STRETCH BEFORE STRAIN

Routine 3

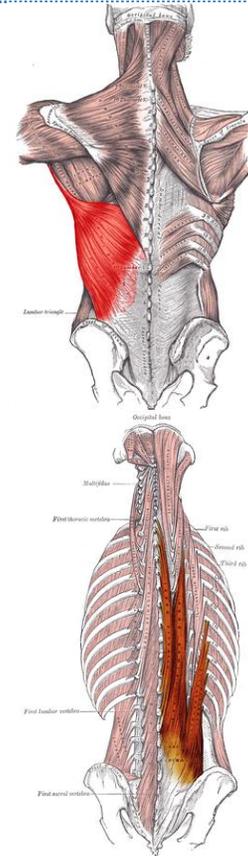
5. Standing Back-Bend Stretch

- Stand with legs hip distance apart. Place hands at small of back, palms towards body and fingers down. Bend back at waist. Keep head in line with spine. Return to starting position.
- Repeat 10 times



Muscles stretched:

Latissimus Dorsi, Erector Spinae



6. Knee to Chest Stretch

- In a standing position lift left leg and bend knee towards chest. Hold for 15-30 seconds.
- Repeat 3-5 times on each leg



Muscles Stretched:

Gluteus Maximus, Erector Spinae, Lower Latissimus Dorsi



STRETCH BEFORE STRAIN

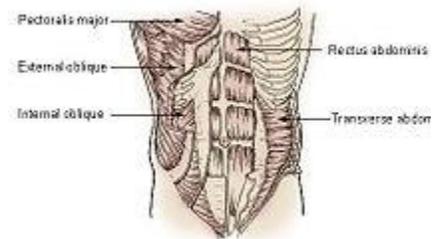
Routine 3

7. Trunk Rotation Stretch

- Place feet shoulder width apart and place hands on hips. Rotate trunk all the way to the left, then all the way to the right.
- Repeat 10 times



Muscles of the Trunk



Muscles Stretched:

Internal oblique, External oblique, transverse abdominis, rectus abdominis



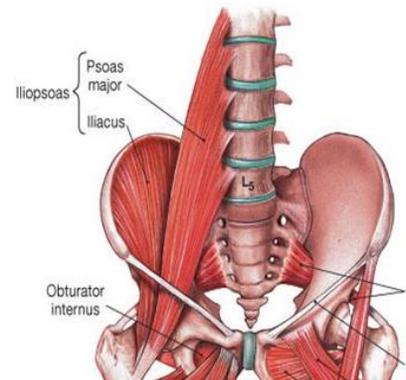
8. Hip Flexor Stretch

- Stand with legs about 3 feet apart. Keep feet pointed forward and push hips forward. Hold for 15-30 seconds
- Repeat 3-5 times on each side



Muscles Stretched:

Iliopsoas



STRETCH BEFORE STRAIN

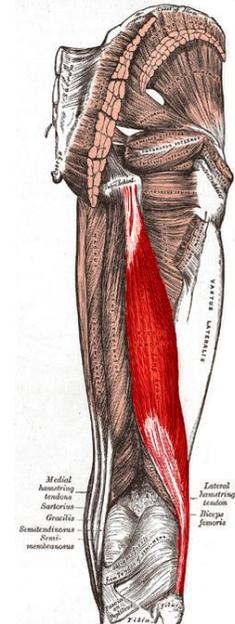
Routine 3

9. Hamstring Stretch

- With legs past shoulder width apart, bend at hips and reach towards right foot. Hold for 15-30 seconds
- Repeat 3-5 times each side



Muscles Stretched:
Hamstrings





STRETCH BEFORE STRAIN

Desk Routine Guidebook

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STRETCH BEFORE STRAIN

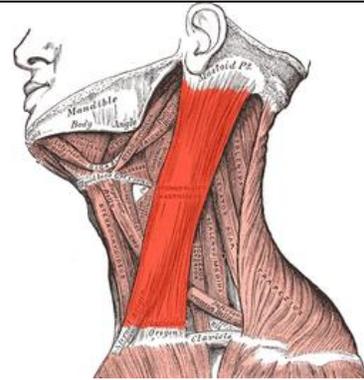
Desk Routine

Neck Stretches

1. Neck Rotation

- In a standing position, with shoulders relaxed, gently rotate head to the left. Do not rotate chin past shoulders. Return to center.
- Repeat 3-5 times on each side

Muscles stretched: SCM



2. Side Bending Neck Stretch

- In a standing position, with shoulders relaxed, reach right ear to right shoulder. Hold for 10-15 seconds then return head to a neutral position.
- Repeat 3-5 times on each side

Muscles stretched: Upper Trapezius, Levator Scapulae



STRETCH BEFORE STRAIN

Desk Routine

3. Neck Flexion

- In a standing position, with shoulders relaxed, tip head forward to chest. Hold for 10-20 seconds.
- Repeat 3-5 times

Muscles stretched: Upper Trapezius



STRETCH BEFORE STRAIN

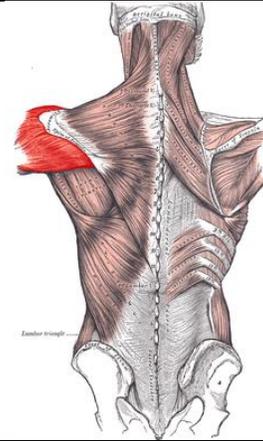
Desk Routine

Shoulder and Upper Back Stretches

4. Deltoid stretch

- Raise right arm behind head and hold neck. Hold right elbow with left hand. Hold for 15-30 seconds.
- Repeat 3-5 times on each side

Muscles stretched: *Deltoid*



5. Interlaced fingers stretch

- Interlace fingers and turn palms out. Extend arms at shoulder height. Hold 15-30 seconds.
- Repeat 3 times

Muscles stretched: *Upper Trapezius, Deltoid*



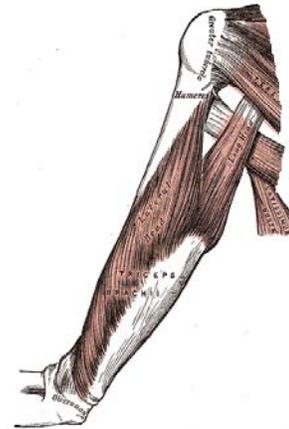
STRETCH BEFORE STRAIN

Desk Routine

6. Triceps stretch

- Raise right arm behind head and hold neck. Hold right elbow with left hand pull towards head. Hold for 15-30 seconds.
- Repeat 3-5 times on each side

Muscles stretched: Triceps



STRETCH BEFORE STRAIN

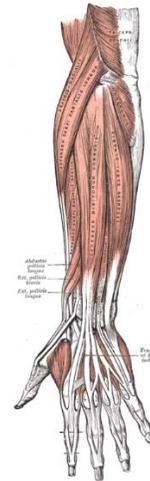
Desk Routine

Wrist Stretches

7. Wrist Extension Stretch

- Extend left arm with palm facing down. Grasp fingers of left hand with right hand. Gently pull left hand towards body while keeping left arm straight. Hold for 15-30 seconds.
- Repeat 3-5 times on each side

Muscles stretched: Extensors of the arms



8. Wrist Flexor Stretch Fingers Down

- In a standing position, interlace fingers (palms facing away) and extend arms at head level. Hold for 15-30 seconds.
- Repeat 3-5 times

Muscles stretched: Flexors of the arm



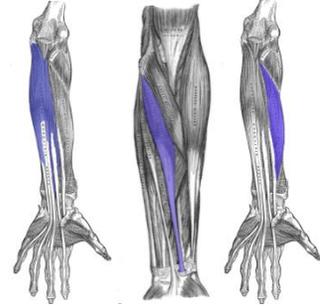
STRETCH BEFORE STRAIN

Desk Routine

9. Wrist Flexor Stretch Fingers Up

- In a standing position, interlace fingers (palms facing away) and extend arms at head level. Hold for 15-30 seconds.
- Repeat 3-5 times

Muscles stretched: Flexors of the arm



Leg and Hip Stretches

10. Standing Calf Stretch

- In a standing position supported by a wall, place right leg straight behind. Bend left leg. Slowly move hips forward until stretch is felt in right calf. Hold for 30 seconds.
- Repeat 2-3 times on each leg

Muscles stretched:
Gastrocnemius



STRETCH BEFORE STRAIN

Desk Routine

11. Standing Quadriceps Stretch

- In a standing position bend left leg at knee and hold ankle or foot with left hand. Keep body and hips straight while pulling left heel towards buttocks. Hold for 15-30 seconds
- Repeat 2-3 times on each leg

Muscles stretched:
Quadriceps



12. Seated Quadriceps Stretch

- Seated in a chair, stretch legs straight and point toes. Bend at waist and reach for toes. Hold for 15-30 seconds
- Repeat 2-3 times

Muscles stretched:
Hamstrings



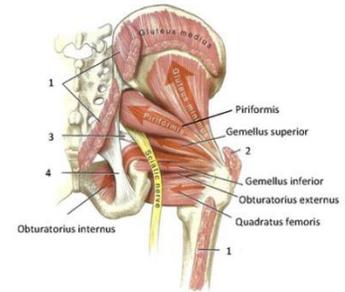
STRETCH BEFORE STRAIN

Desk Routine

13. Seated Hip Stretch

- Sit towards middle of chair with feet flat on the floor. Place one ankle in the opposite knee and sit tall. Maintaining a straight back, tilt forward at the waist. Hold for 15-30 seconds
- Repeat 2-3 times on each leg

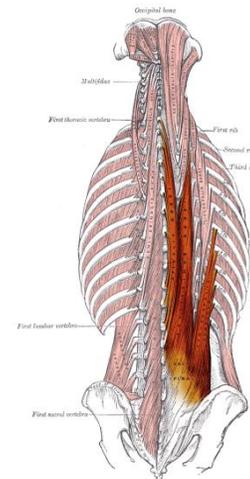
Muscles stretched: Lateral Rotator Group



Middle and Lower Back Stretches

14. Seated Lower Back Stretch

- In a seated position with feet flat on the floor and hands on knees, slowly arch back and push chest forward. Hold for five seconds. Slowly round shoulders, pulling abdomen in. Hold for five seconds.
- Repeat 2-3 times
- **Muscles stretched:** *erector spinae,*



STRETCH BEFORE STRAIN

Desk Routine

15. Seated Cross-Legged Hip Rotator Stretch

- In a seated position cross right leg over left leg. Turn upper body to right and pull on right leg. Hold for 20-30 seconds
- Repeat 2-3 times on each leg
- **Muscles stretched:** *Lateral Rotator Group*

