

SHOULDER IMPINGEMENT



AOSSM SPORTS TIPS

WHAT IS SHOULDER IMPINGEMENT?

Impingement refers to mechanical compression and/or wear of the rotator cuff tendons. The rotator cuff is actually a series of four muscles connecting the scapula (shoulder blade) to the humeral head (upper part of the shoulder joint). The rotator cuff is important in maintaining the humeral head within the glenoid (socket) during normal shoulder function and also contributes to shoulder strength during activity. Normally, the rotator cuff glides smoothly between the undersurface of the acromion, the bone at the point of the shoulder and the humeral head.

HOW DOES SHOULDER IMPINGEMENT OCCUR?

Any process which compromises this normal gliding function may lead to mechanical impingement. Common causes include weakening and degeneration within the tendon due to aging,

the formation of bone spurs and/or inflammatory tissue within the space above the rotator cuff (subacromial space) and overuse injuries. Overuse activities that can lead to impingement are most commonly seen in tennis players, pitchers and swimmers.

HOW IS SHOULDER IMPINGEMENT DIAGNOSED?

The diagnosis of shoulder impingement can usually be made with a careful history and physical exam. Patients with impingement most commonly complain of pain in the shoulder, which is worse with overhead activity and sometimes severe enough to cause awakening in the night. Manipulation of the shoulder in a specific way by your doctor will usually reproduce the symptoms and confirm the diagnosis. X-rays are also helpful in evaluating the presence of bone spurs and/or the narrowing of the subacromial space. MRI (magnetic resonance imaging), a test that allows visualization of the rotator cuff, is usually not necessary in cases of shoulder impingement, but may be used to rule out more serious diagnoses.

HOW IS SHOULDER IMPINGEMENT TREATED?

The first step in treating shoulder impingement is eliminating any identifiable cause or contributing factor. This may mean temporarily avoiding activities like tennis, pitching or swimming. A nonsteroidal anti-inflammatory medication may also be recommended by your doctor. The mainstay of treatment involves exercises to restore normal flexibility and strength to the shoulder girdle, including strengthening both the

rotator cuff muscles and the muscles responsible for normal movement of the shoulder blade. This program of instruction and exercise demonstration may be initiated and carried out either by the doctor, certified athletic trainer or a skilled physical therapist. Occasionally, an injection of cortisone may be helpful in treating this condition.

IS SURGERY NECESSARY?

Surgery is not necessary in most cases of shoulder impingement. But if symptoms persist despite adequate nonsurgical treatment, surgical intervention may be beneficial. Surgery involves debriding, or surgically removing, tissue that is irritating the rotator cuff. This may be done with either open or arthroscopic techniques. Outcome is favorable in about 90 percent of the cases.

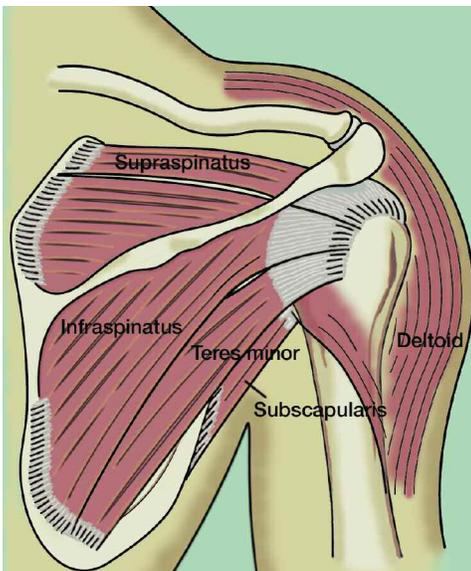
Expert Consultant: Ben Shaffer, MD

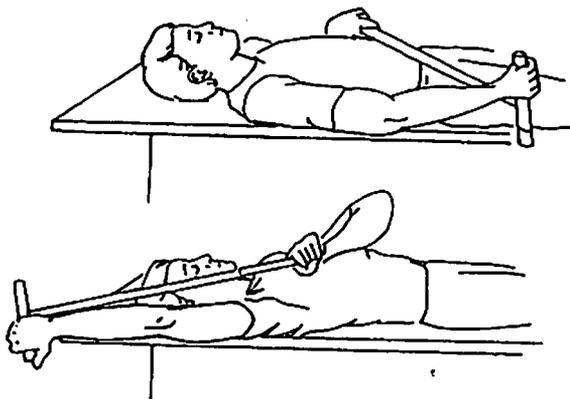
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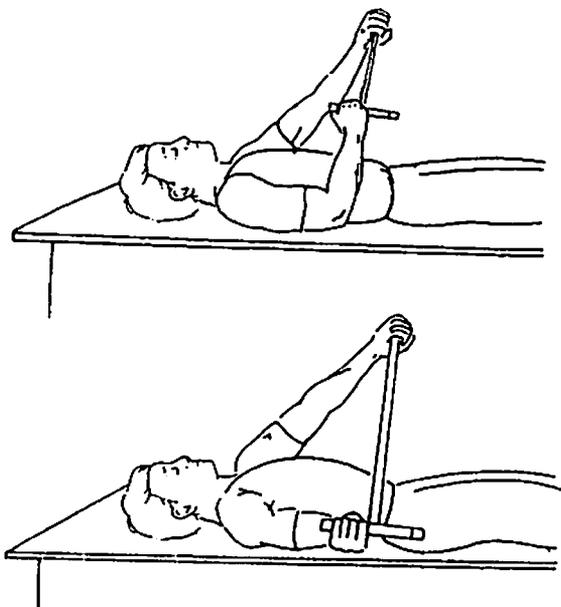
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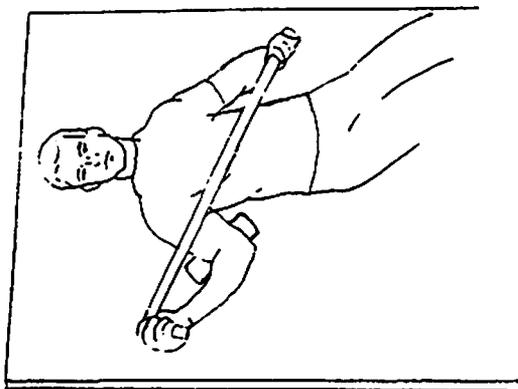
B. Shoulder Abduction:

Lie on back with involved arm at side of body, elbow straight and palm against leg. With other hand, push arm overhead, keeping the arm parallel to your side. As the arm reaches 90°, turn palm upwards. Twisting the unininvolved hand up can help. Continue overhead with palm up. Hold at end position 5 seconds and repeat.

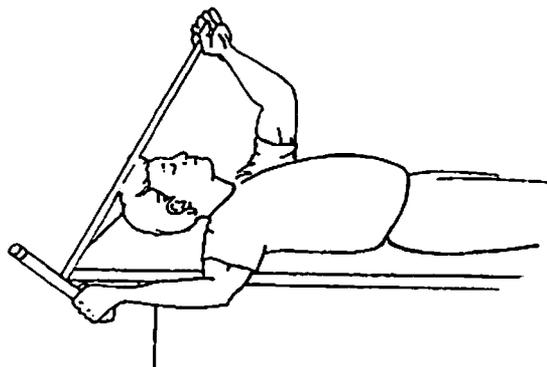


4. External Rotation

A. Lie on back with involved arm against body and elbow bent at 90°. Grip T-bar handle and with unininvolved arm, push involved shoulder into external rotation. Hold for 5 seconds. Return to starting position and repeat.

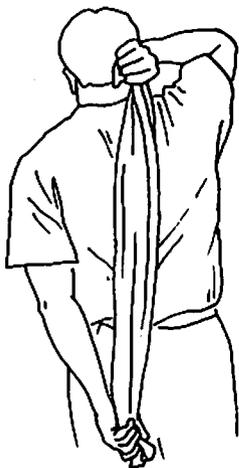


B. Lie on back with involved arm 45° from body and elbow bent at 90°. Grip T-bar in hand of involved arm and keep elbow in flexed position. Using opposite arm, push involved arm into external rotation. Hold for 5 seconds, return to starting position and repeat.



C. Lie on back with involved arm 90° from body and elbow bent at 90°. Grip T-bar in hand of involved arm and keep elbow in a fixed position. Using opposite arm, push involved arm into external rotation. Hold for 5 seconds, return to starting position and repeat.

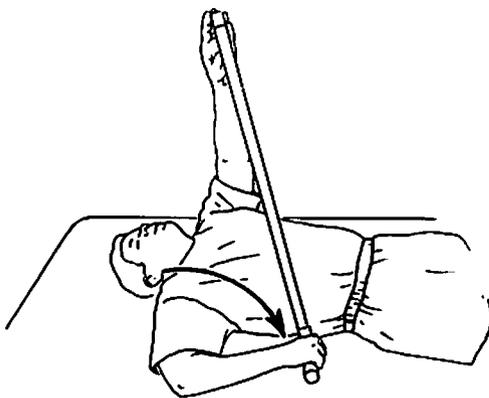
D. Involved arm overhead, standing. Hold towel behind neck and with involved arm, hold the other end of towel and pull down. Left pulls down; right arm externally rotates (ER). Hold for 15 seconds.



5. Internal Rotation

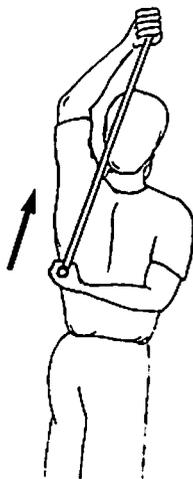
A. Supine:

Lie on back with involved arm out to side of body at 90° and elbow bent to 90°. Gripping T-bar in hand of involved arm and keeping elbow in a fixed position, use involved arm to push involved shoulder into internal rotation. Hold for 5 seconds and repeat.



B. Standing:

Involved arm behind back holding T-bar. Uninvolved arm overhead and pulling bar upwards, further rotating the shoulder inwards. Involved arm internally rotates (IR). Hold for 5 seconds and repeat.



C. Involved arm behind back holding towel. Uninvolved arm overhead and pulling towel upwards, further rotating the shoulder inwards. Involved arm internally rotates (IR). Hold for 5 seconds and repeat.



SHOULDER - 26 ROM: Pendulum (Circular)

Let left arm move in circle clockwise, then counterclockwise, by rocking body weight in circular pattern.



Circle 30 times each direction per set.
Do 1 sets per session.
Do 2 sessions per day.

SHOULDER - 97 ROM: Pendulum (Flexion / Extension)

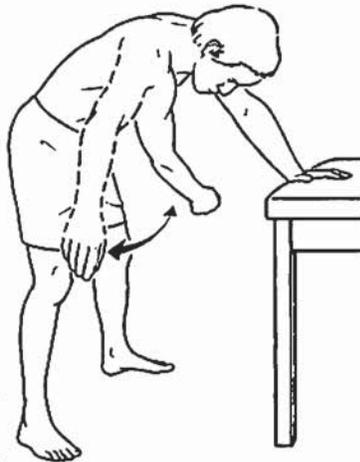
Let left arm hang and use momentum from body to swing arm forward and back. Progress from small to larger swings.



Repeat 30 times per set.
Do 1 sets per session.
Do 2 sessions per day.

SHOULDER - 28 ROM: Cross (Horizontal Abduction / Adduction)

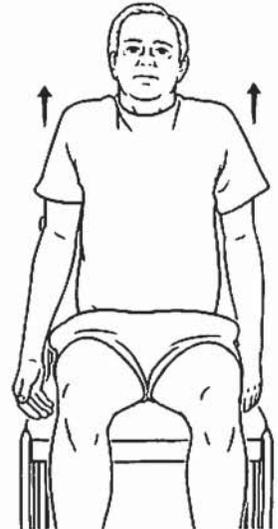
Let arm hang down and sway body from side to side.



Repeat 30 times per set.
Do 1 sets per session.
Do 2 sessions per day.

SHOULDER - 1 Warm-Up Shrug

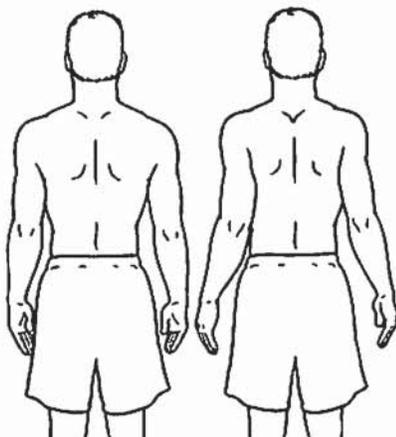
Raise shoulders in an exaggerated manner, then drop them down.



Repeat 30 times.
Do 2 sessions per day.

SHOULDER - 101 Scapular Retraction (Standing)

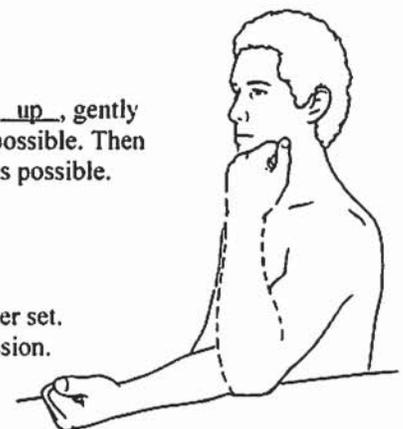
With arms at sides, pinch shoulder blades together.



Repeat 30 times per set.
Do 1 sets per session.
Do 2 sessions per day.

HAND - 39 AROM: Elbow Flexion / Extension

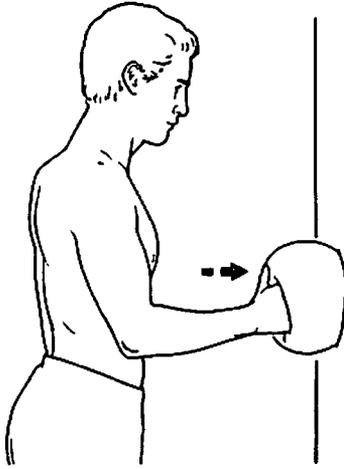
With left hand palm up, gently bend elbow as far as possible. Then straighten arm as far as possible.



Repeat 30 times per set.
Do 1 sets per session.
Do 2 sessions per day.

SHOULDER - 29 Strengthening: Isometric Flexion

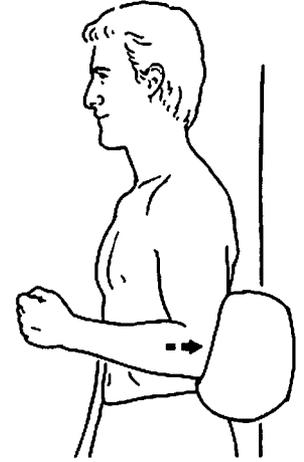
Using wall for resistance, press left fist into ball using light pressure. Hold 10 seconds.



Repeat 10 times per set.
Do 1 sets per session.
Do 2 sessions per day.

SHOULDER - 31 Strengthening: Isometric Extension

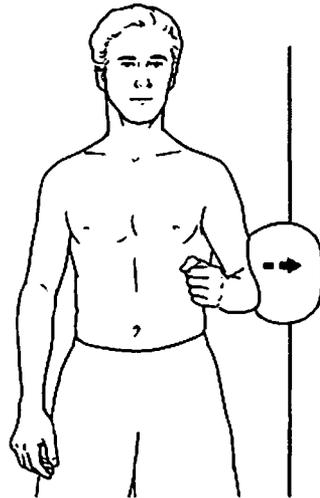
Using wall for resistance, press back of left arm into ball using light pressure. Hold 10 seconds.



Repeat 10 times per set.
Do 1 sets per session.
Do 2 sessions per day.

SHOULDER - 32 Strengthening: Isometric Abduction

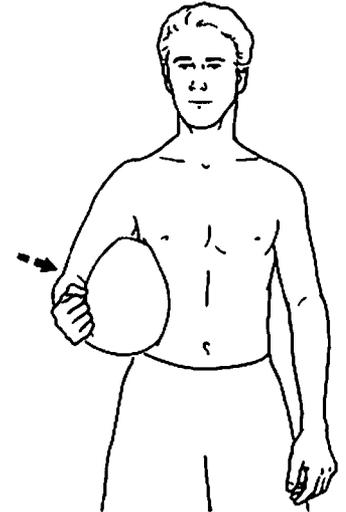
Using wall for resistance, press left arm into ball using light pressure. Hold 10 seconds.



Repeat 10 times per set.
Do 1 sets per session.
Do 2 sessions per day.

SHOULDER - 34 Strengthening: Isometric Adduction

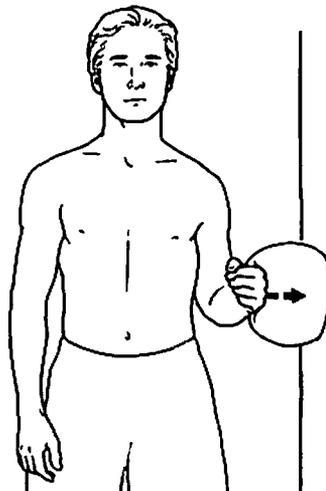
Using body for resistance, gently press left arm into ball using light pressure. Hold 10 seconds.



Repeat 10 times per set.
Do 1 sets per session.
Do 2 sessions per day.

SHOULDER - 36 Strengthening:
Isometric External Rotation

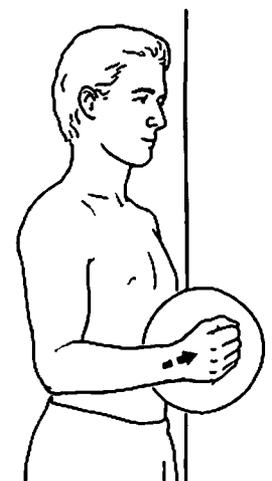
Using wall to provide resistance, and keeping left arm at side, press back of hand into ball using light pressure. Hold 10 seconds.



Repeat 10 times per set.
Do 1 sets per session.
Do 2 sessions per day.

SHOULDER - 37 Strengthening:
Isometric Internal Rotation

Using door frame for resistance, press palm of left hand into ball using light pressure. Keep elbow in at side. Hold 10 seconds.



Repeat 10 times per set.
Do 1 sets per session.
Do 2 sessions per day.



JOB'S SHOULDER EXERCISES



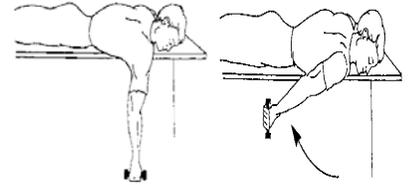
Jobe #1—Shoulder Flexion

1. Stand or sit with your arms at your side and your thumbs pointing up.
2. Keeping your elbows straight, raise your arms, leading with your thumbs.
3. Continue slowly until your arms are parallel to the ground.
4. Return slowly to the starting position and repeat.



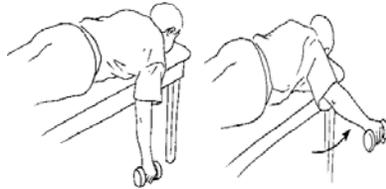
Jobe #2—Shoulder Extension

1. Stand next to a table or bench. Lean from the hips, using the arm closest to the bench for balance. Allow the other arm to hang perpendicular to the floor.
2. Holding a weight, lift the arm backwards until it is level with the hip. Keep your elbow straight and your arm close to your body.



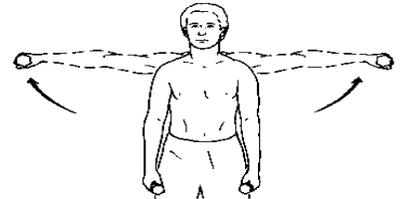
Jobe #3—Horizontal Abduction

1. Stand next to a table or bench, leaning forward from the hips, with your arm perpendicular to the floor.
2. Lift your arm up and to the side, keeping your elbow straight. Continue lifting until your arm is parallel to the floor. Make sure you do not lift your hand higher than the shoulder.
3. Return slowly to the starting position and repeat.



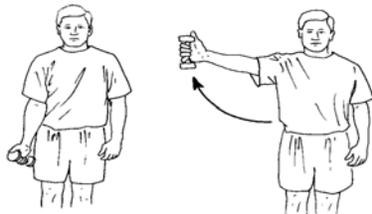
Jobe #4—Shoulder Abduction

1. Stand with your arms at your side, with thumbs pointing forward.
2. Lift your arms to shoulder height (parallel to the ground), keeping your elbows straight.
3. Lower arms slowly to starting position and repeat.



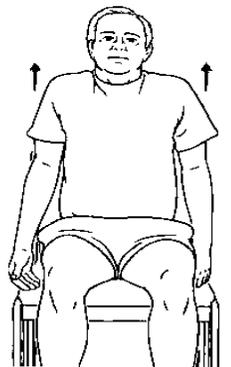
Jobe #5—Scaption

1. Stand with elbows extended and thumbs up.
2. Raise arms to shoulder level at 30° angle in front of body.
3. Slowly lower the arms to the starting position and repeat.



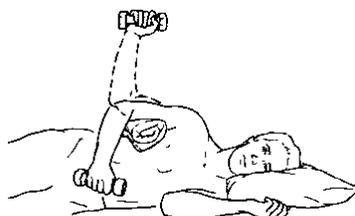
Jobe #6—Shoulder Shrugs

1. Stand with your arms at your side.
2. Shrug your shoulders, lifting them toward your ears. Keep the elbows flexed slightly throughout the exercise.
3. Return slowly to the starting position and repeat.



Jobe #7—Sidelying External Rotation

1. Lie on the uninvolved side, with the involved arm at side of body and elbow bent to 90°.
2. Keeping the elbow of the involved arm fixed to the side, raise arm.
3. Slowly lower to the starting position and repeat.



Jobe #8—Sidelying Internal Rotation

1. Lie on involved side with arm against side and elbow bent to 90°.
2. Keeping the elbow fixed against side, lower forearm first to comfort, then raise forearm to trunk.
3. Slowly lower to the starting position and repeat.

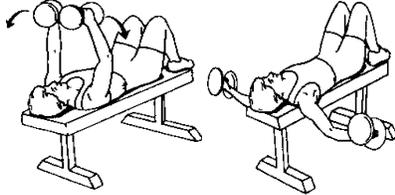


JOBE'S SHOULDER EXERCISES



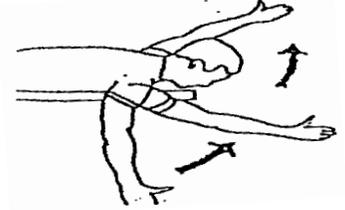
Jobe #9—Horizontal Adduction

1. Lie on the floor or bench.
2. Hold your arms out to the side with your elbows straight and the palms facing up.
3. Raise your arms slowly, until the fingers point at the ceiling.
4. Slowly lower the arms to the starting position and repeat.



Jobe #10—Prone Flexion

1. Lie prone on the table, with your shoulders off of the end of the table.
2. Keeping your elbows straight, raise your arms up to your ears, with your thumbs pointing up.
3. Slowly lower the arms to the starting position and repeat.



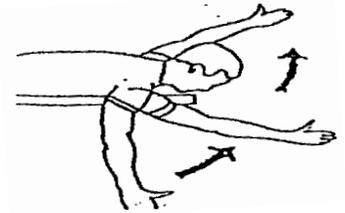
Jobe #11—Prone Abduction

1. Lie prone on the table, with your shoulders off of the end of the table.
2. Keeping your elbows straight, and your arms hanging down, raise your arms up to ear level, with your palms are facing down.
3. Slowly lower the arms to the starting position and repeat.



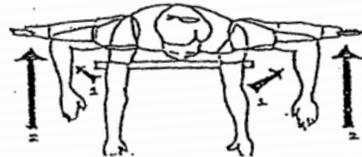
Jobe #12—Prone Scaption

1. Lie prone on the table, with your shoulders off of the end of the table.
2. Keeping your elbows straight, and your arms hanging down, raise your arms up at a 45° angle to ear level, with your palms are facing down.
3. Slowly lower the arms to the starting position and repeat.



Jobe #13—Prone Scapular Retraction with External Rotation

1. Lie prone on the table, with your shoulders off of the end of the table.
2. Raise your elbow up to the side with a 90° angle in the elbows.
3. Then raise the hands to ear level with the palms facing down.
4. Slowly reverse the order to come down (hands, then elbows).



****You must remember that these are two distinct movements.****

These exercises are to be performed _____ times per week / day. Begin with 3 sets of 10 repetitions and progress to 5 sets of 10 repetitions. Progress your weight as tolerated (i.e.-5 sets of 10 repetitions completed easily with specific weight, you will increase by 1# and decrease you exercise to 3 sets of 10 repetitions). You will progress to 5 sets of 10 repetitions again and repeat the same process until you can perform 5 sets of 10 repetitions with 5#. You do NOT want to exceed 5# on these exercises at any time. After performing your exercises, ice your shoulder for 15-20 minutes.