

Fizjoterapia w dysfunkcjach czynnościowych narządu ruchu - obręcz barkowa i kończyna górna

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MIĘSIEŃ CZWOROBOCZNY GRZBIETU

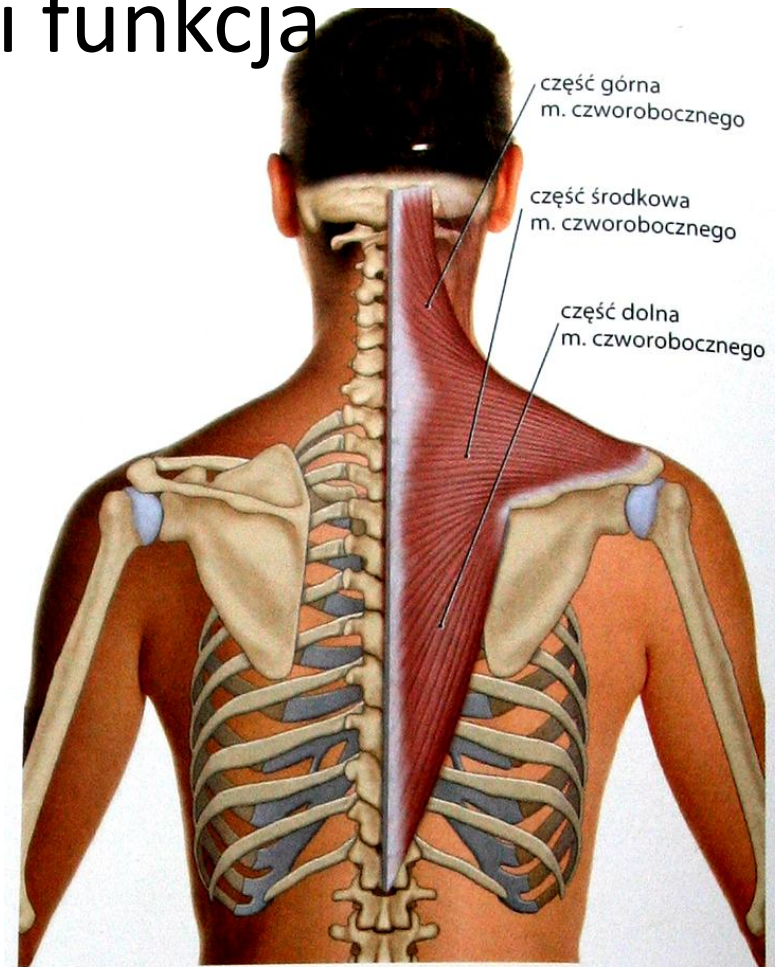
Mięsień czworoboczny grzbietu – przyczepy i funkcja

□ PRZYCZEPY

- o Od guzowatości potylicznej zewnętrznej, środkowej 1/3 kresy karkowej górnej, więzadła karkowego i wyrostków kolczystych od C7 do Th12 do bocznej 1/2 długości obojczyka, wyrostka barkowego i grzebienia łopatki.

□ FUNKCJE

- o Górna część mięśnia czworobocznego: unosi, cofa i powoduje górną rotację łopatki w stawie łopatkowo-żebrowym; prostuje, zgina bocznie i rotuje w kierunku przeciwnym głowę i szyję w stawach kręgosłupa.
- o Środkowa część mięśnia czworobocznego: cofa łopatkę w stawie łopatkowo-żebrowym.
- o Dolna część mięśnia czworobocznego: obniża, cofa i powoduje górną rotację łopatki w stawie łopatkowo-żebrowym.



Rycina 10-6 Widok z boku prawej części mięśnia czworobocznego. Mięśnie: mostkowo-obojczykowo-sutkowy, dźwigacz łopatki i płątowaty głowy zostały wycieniowane.

Mięsień czworoboczny grzbietu



Figure 10-7 Starting position for prone palpation of the right trapezius.

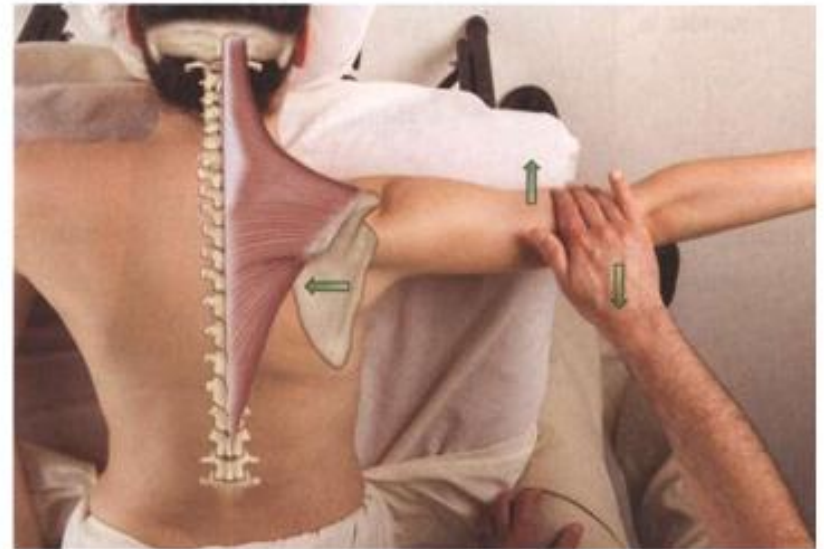


Figure 10-8 To engage the entire right trapezius, the client abducts the arm at the shoulder joint (resistance can be added as shown) and slightly retracts the scapula at the scapulocostal joint.

Mięsień czworoboczny grzbietu - palpacja



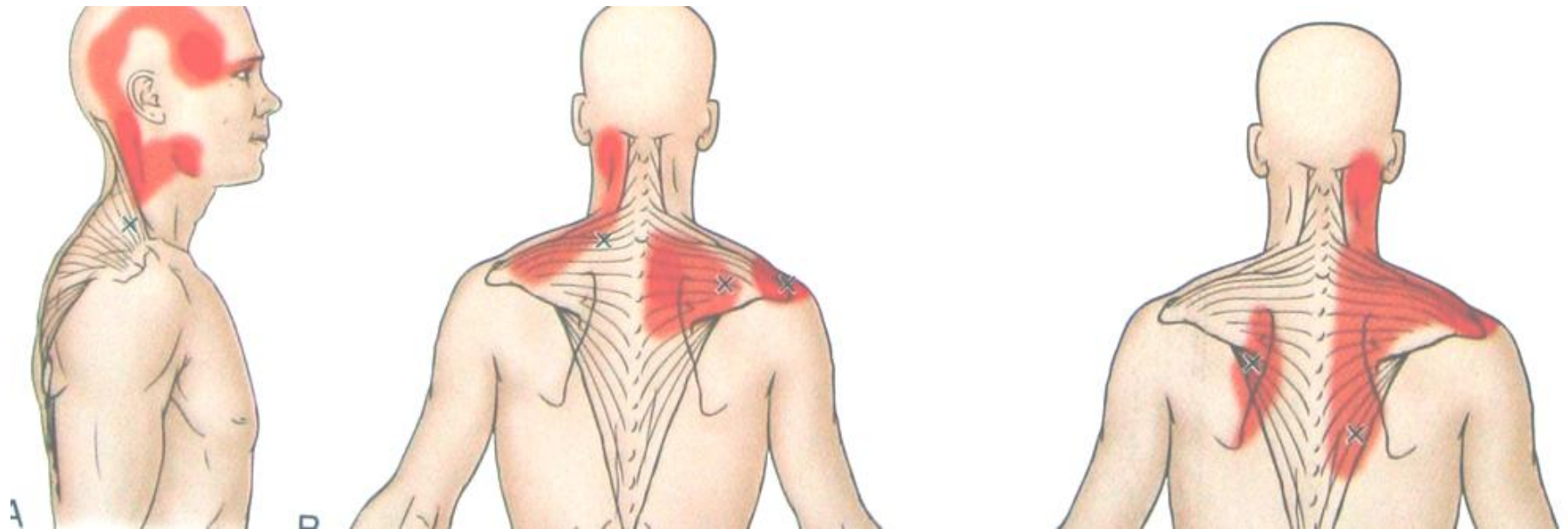
Palpation Key:

Fly like an airplane:
If both trapezius muscles are palpated at the same time, both arms out to the sides make the client appear to be flying like an airplane.



Figure 10-9 Palpation of the right trapezius. **A** shows palpation of the lower trapezius. **B** shows palpation of the middle trapezius. **C** shows palpation of the upper trapezius. Palpation of the upper trapezius is facilitated by asking the client to slightly extend the head and neck at the spinal joints. For all three parts of the trapezius, palpate by strumming perpendicular to the fiber direction as shown.

Mięsień czworoboczny grzbietu-punkty spustowe i obszar promieniowania bólu



Mięsień czworoboczny grzbietu - stretching

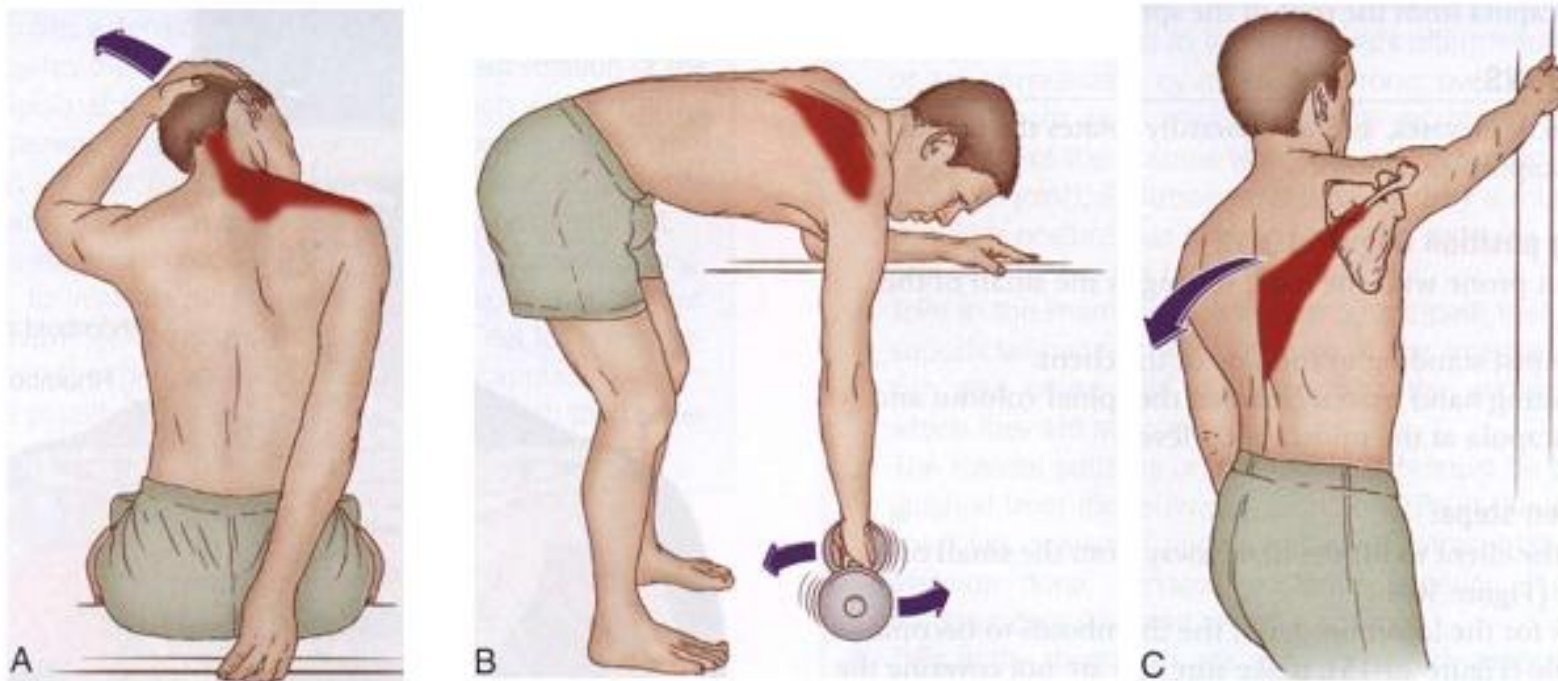


Figure 10-11 Stretches of the three functional parts of the right trapezius. **A** shows a stretch of the right upper trapezius. The client's head and neck are flexed, left laterally flexed, and (ipsilaterally) rotated to the right. To keep the shoulder girdle down, the right hand holds on to the bench. **B** shows a stretch of the right middle trapezius. A weight is held in the right hand; its traction force protracts and stretches the middle trapezius. Medially rotating the right arm will enhance the stretch. **C** shows a stretch of the right lower trapezius. A pole is grasped at approximately head height and the client leans back, causing protraction and elevation of the scapula.



MIĘŚNIE RÓWNOLEGŁOBCZNE

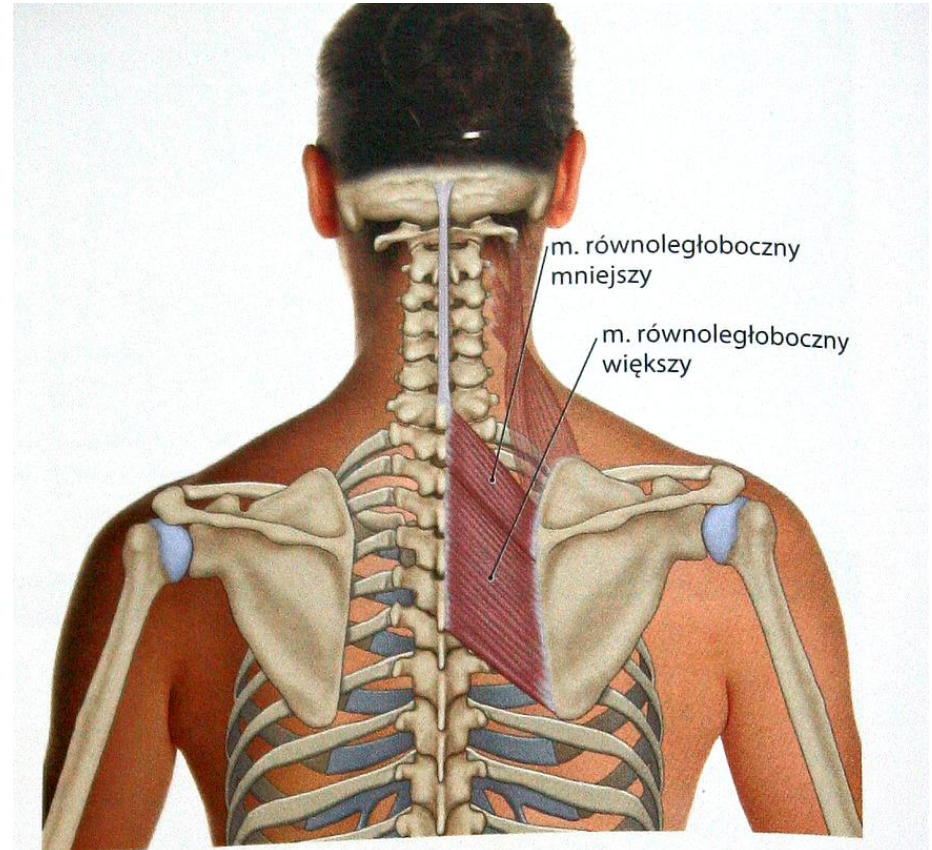
Mięśnie równoległoboczne – przyczepy i funkcja

❑ PRZYCZEPY

- o Od wyrostków kolczystych kręgów C7-Th5 do brzegu przysródkowego łopatki pomiędzy trójkątem grzebienia łopatki a kątem dolnym.

❑ FUNKCJE

- o Cofa, unosi i powoduje dolną rotację łopatki w stawie łopatkowo-żebrowym.



Rycina 10-12 Widok z tyłu mięśnia równoległobocznego większego prawego i równoległobocznego mniejszego prawego. Mięsień dźwigacz łopatki został wycieniowany.

Mięśnie równoległoboczne - palpacja



Figure 10-13 Starting position for prone palpation of the right rhomboids. Note: The client's right hand is in the small of the back, as seen in Figure 10-15.

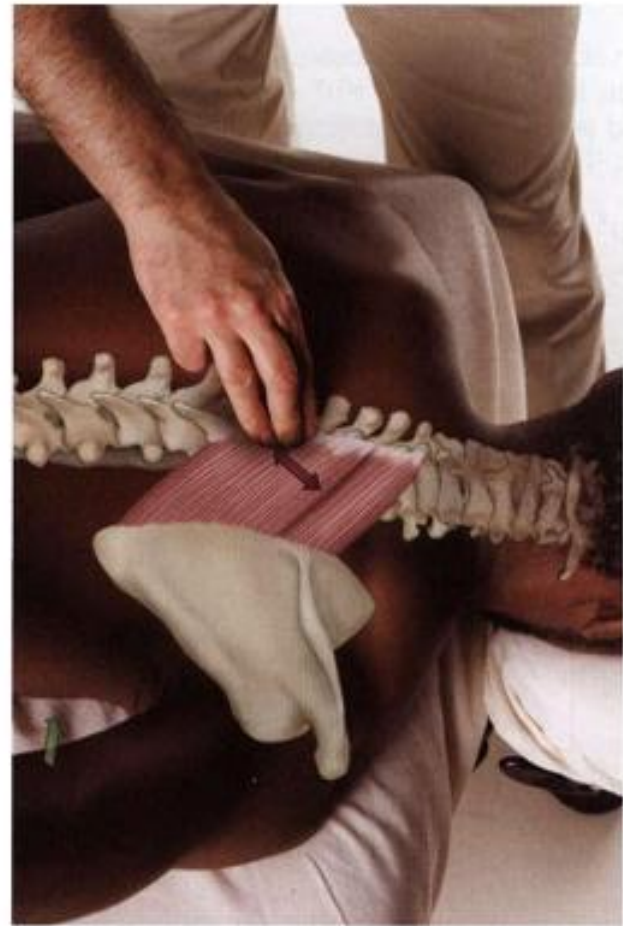


Figure 10-14 Palpating perpendicular to the fiber direction of the right rhomboids.

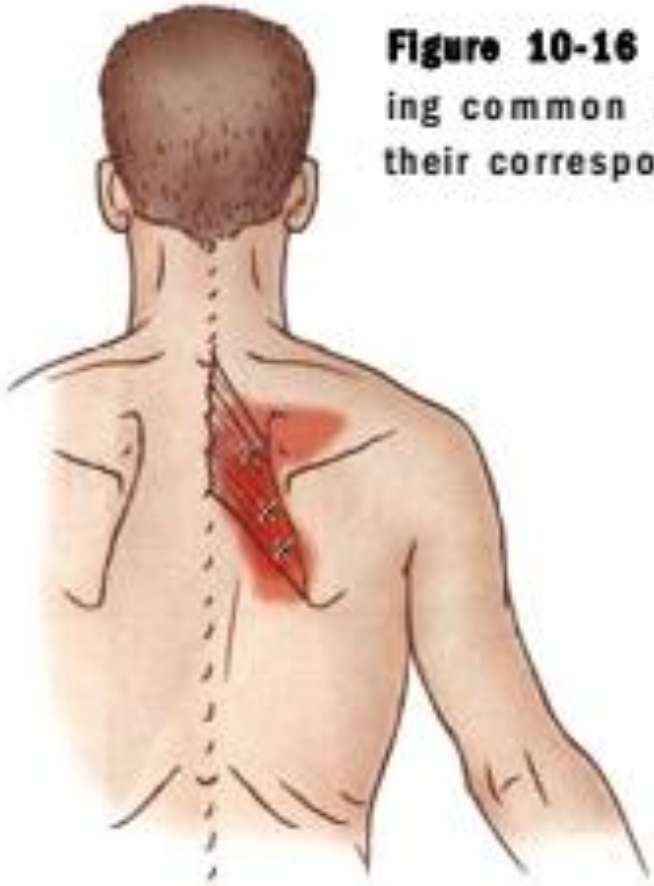
Mięśnie równoległoboczne - palpacja

Alternate Palpation Position—Seated



Figure 10-15 The rhomboids can also be easily palpated in the seated position. Note that the inferior border of the rhomboids is often visible.

Figure 10-16 Posterior view illustrating common rhomboids TrPs and their corresponding referral zone.



Mięśnie
równoległoboczne –
punkty spustowe i
promieniowanie bólu

Mięśnie równoległoboczne –stretching



Figure 10-17 A stretch of the right rhomboids. The client's arm is used to protract and depress the right scapula.



MIĘSIEŃ DŹWIGACZ ŁOPATKI

Mięsień dźwigacz łopatki – przyczepy i funkcja

□ PRZYCZEPY

- Od wyrostków poprzecznych kręgów C1–C4 do przyśrodkowego brzegu łopatki pomiędzy trójkątem grzebienia łopatki a kątem górnym.

□ FUNKCJE

- Unosi i powoduje dolną rotację łopatki w stawie łopatkowo-żebrowym.
- Prostuje, zgina bocznie oraz powoduje rotację szyi w stawach kręgosłupa w tę samą stronę.



Kłucz do palpacji

Ręka pacjenta na kości
krzyżowej.

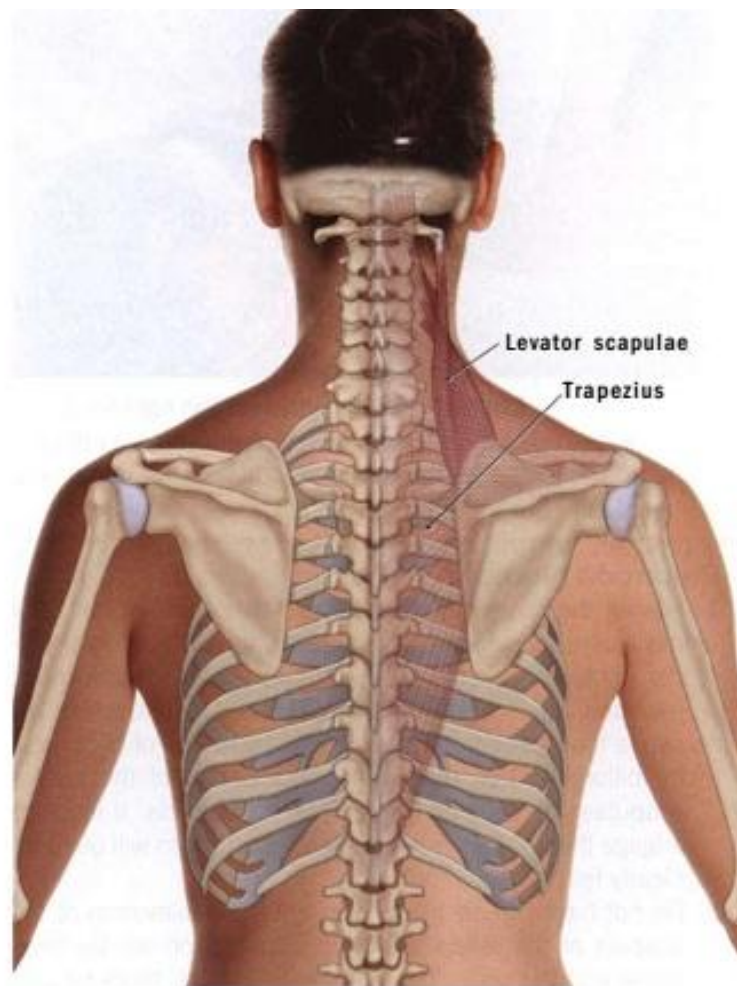


Figure 10-20 Posterior view of the right levator scapulae. The trapezius has been ghosted in.

Mięsień dźwigacz łopatki - palpacja

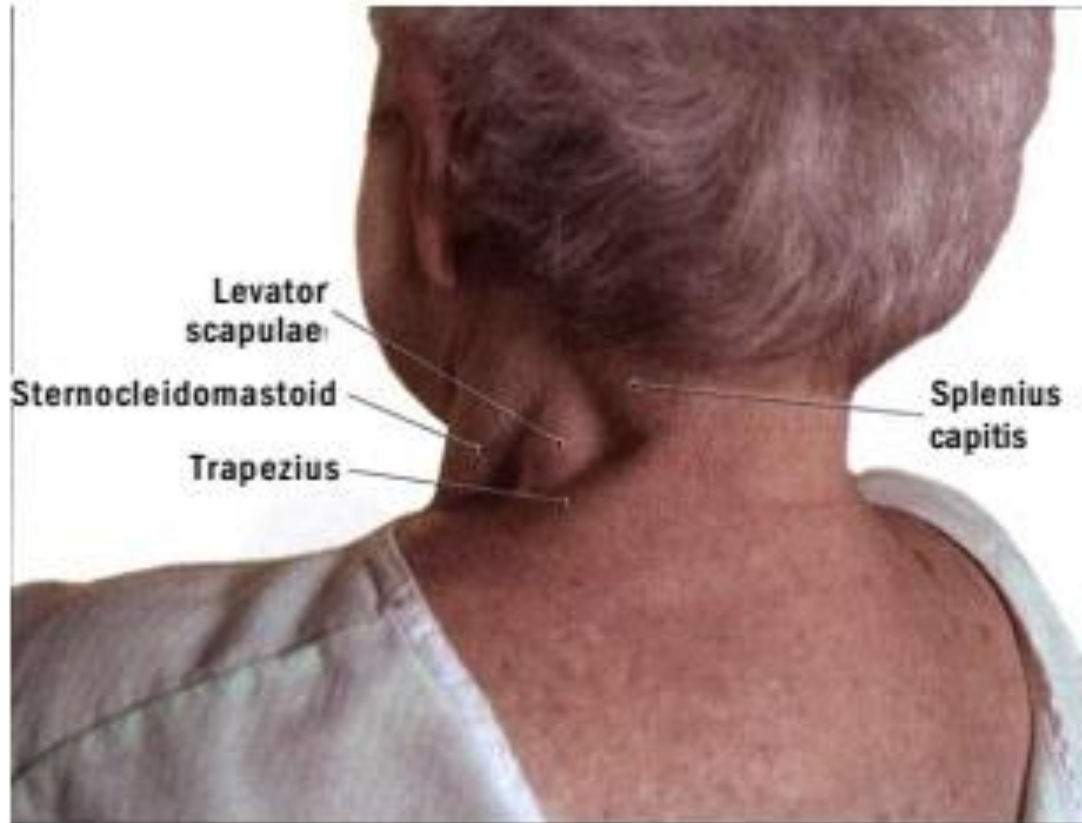


Figure 10-23 Posterolateral view showing the levator scapulae and splenius capitis in the posterior triangle of the neck.

Mięsień dźwigacz łopatki - palpacja

Pozycja początkowa (ryc. 10-21)

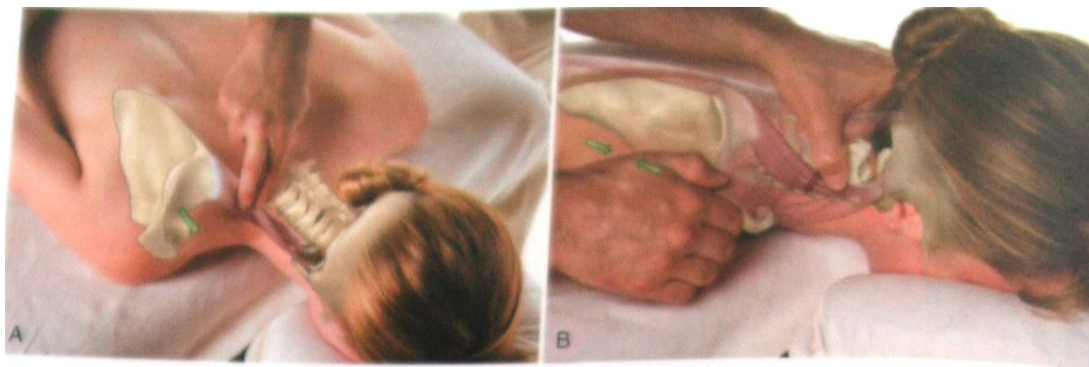
- o Pacjent w pozycji – leżąc przodem, z ręką opartą na kości krzyżowej.
- o Terapeuta stoi lub siedzi obok pacjenta.
- o Ręka palpacyjna ułożona przyśrodkowo na powierzchni górnego kąta łopatki.

Etapy badania palpacyjnego

1. Należy polecić pacjentowi, którego ręka spoczywa na kości krzyżowej, wykonywanie delikatnych ruchów unoszenia łopatki w stawie łopatkowo-żebrowym, w krótkim zakresie ruchu. Umożliwi to palpacyjne wyczucie napinania mięśnia dźwigacza łopatki, położonego pod mięśniem czworobocznym (ryc. 10-22A).
2. Badanie palpacyjne mięśnia dźwigacza łopatki należy kontynuować w kierunku górnego przyczepu za pomocą pociągania prostopadłego do linii przebiegu włókien mięśniowych.
3. Po dotarciu do tylnego trójkąta szyi palpacja mięśnia dźwigacza łopatki (położonego nad mięśniem czworobocznym) może przebiegać bez konieczności ułożenia ręki pacjenta na krzyżu. Można polecić pacjentowi unoszenie łopatki z większą siłą oraz oporować wykonywany ruch (ryc. 10-22B).
4. Badanie palpacyjne mięśnia dźwigacza łopatki powinno być wykonywane w kierunku górnym, najdalej jak jest to możliwe (do okolicy przyczepu górnego położonego pod mięśniem mostkowo-obojęczkowo-sutkowym).
5. Po zlokalizowaniu mięśnia dźwigacza łopatki należy polecić pacjentowi rozluźnienie mięśnia docelowego i wykonać badanie palpacyjne w celu oceny napięcia spoczynkowego mięśnia.



Rycina 10-21 Pozycja początkowa palpacji mięśnia dźwigacza łopatki prawego w pozycji – leżąc przodem.



Rycina 10-22 Palpacja mięśnia dźwigacza łopatki prawego. **A** przedstawia palpację okolicy górnego trójkąta łopatki (gdzie dźwigacz łopatki leży pod mięśniem czworobocznym). **B** przedstawia palpację powierzchniowo położonej części dźwigacza łopatki w okolicy tylnego trójkąta szyi.

Mięsień dźwigacz łopatki - palpacja



Figure 10-21 Starting position for prone palpation of the right levator scapulae.

Mięsień dźwigacz łopatki - palpacja

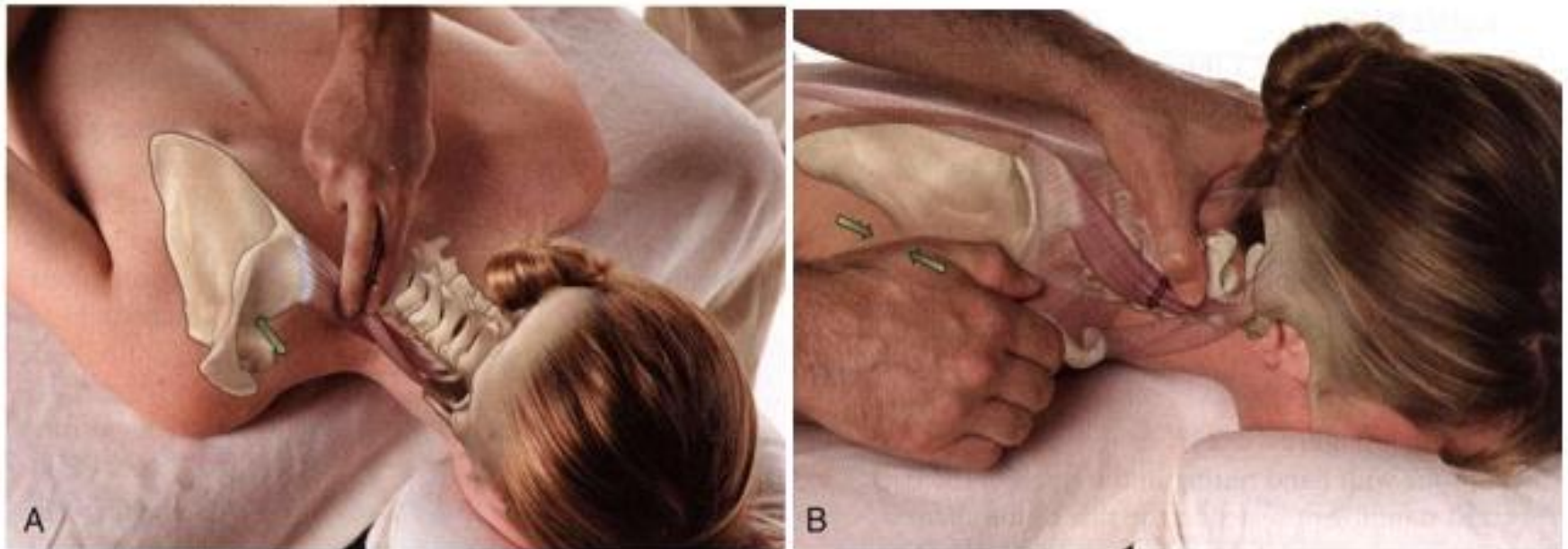


Figure 10-22 Palpation of the right levator scapulae. **A** shows palpation near the superior angle of the scapula (where the levator scapulae is deep to the trapezius). **B** shows palpation where the levator scapulae is superficial in the posterior triangle of the neck.

Mięsień dźwigacz łopatki - palpacja

Alternate Palpation Position—Seated



Figure 10-24 The levator scapulae can also be easily palpated with the client seated.

Mięsień dźwigacz łopatki – punkty spustowe i promieniowanie bólu

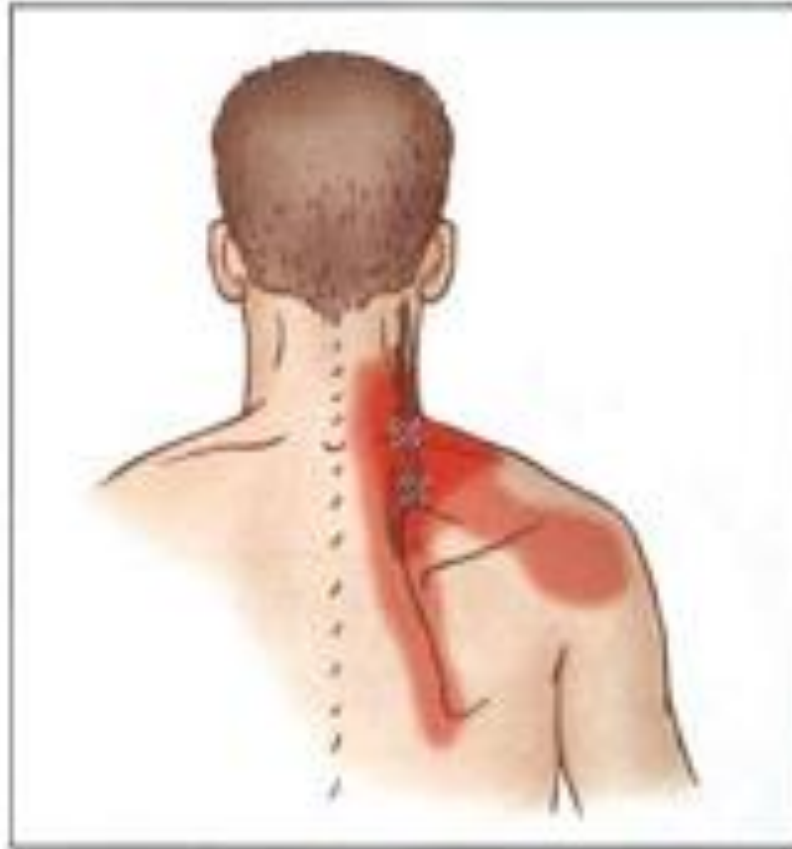


Figure 10-25 Posterior view illustrating common levator scapulae TrPs and their corresponding referral zone.

Mięsień dźwigacz łopatki – stretching



Figure 10-26 A stretch of the right levator scapulae. The client's neck is flexed, left laterally flexed, and rotated (contralateral) to the left. To keep the shoulder girdle down, the right hand holds on to the bench.

**MIĘSIĘN PODGRZEBIENIOWY I
OBŁY MNIEJSZY**

Mięśnie: podgrzebieniowy i obły mniejszy - anatomia

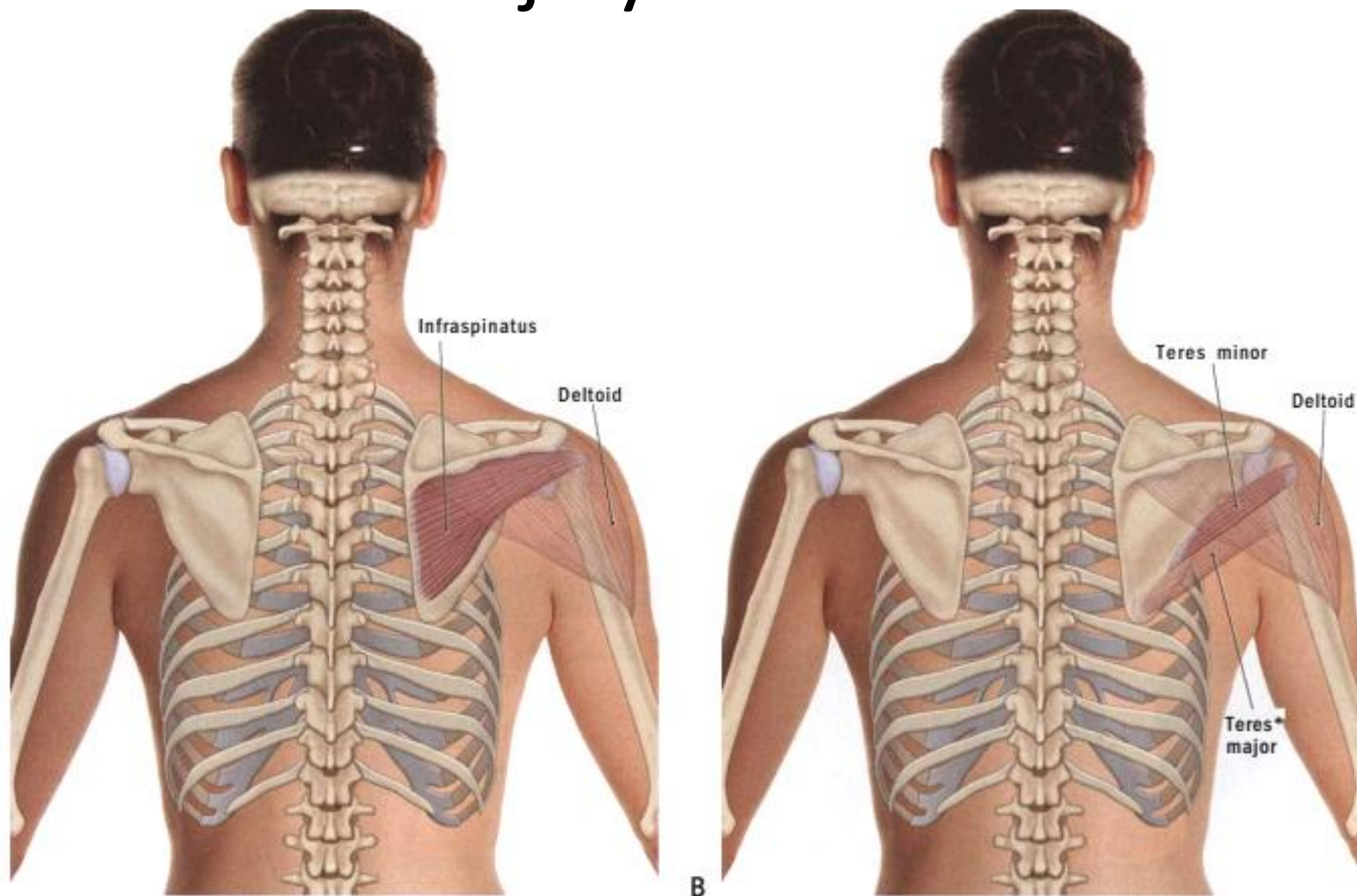


Figure 10-33 Posterior views of the right infraspinatus and teres minor. **A** shows the infraspinatus; the deltoid has been ghosted in. **B** shows the teres minor; the deltoid and teres major have been ghosted in.

Mięsień podgrzebieniowy - palpacja



Figure 10-34 Starting position for prone palpation of the right infraspinatus.

Mięsień podgrzebieniowy i obły mniejszy - palpacja

Alternate Palpation Position—Seated



Figure 10-36 The infraspinatus and teres minor can also be easily palpated with the client seated. To engage these muscles, have the client perform lateral rotation of the arm at the shoulder joint against resistance. Note: Given that it is usually uncomfortable to resist rotation of the arm by resisting motion of the arm itself, the client can be asked to flex the elbow joint to 90 degrees and then the resistance can be given to the forearm. It is important that the client's resistance against the therapist's hand is not coming from horizontal extension of the arm at the shoulder joint, but rather lateral rotation of the arm.

Mięsień podgrzebieniowy i obły mniejszy - palpacja

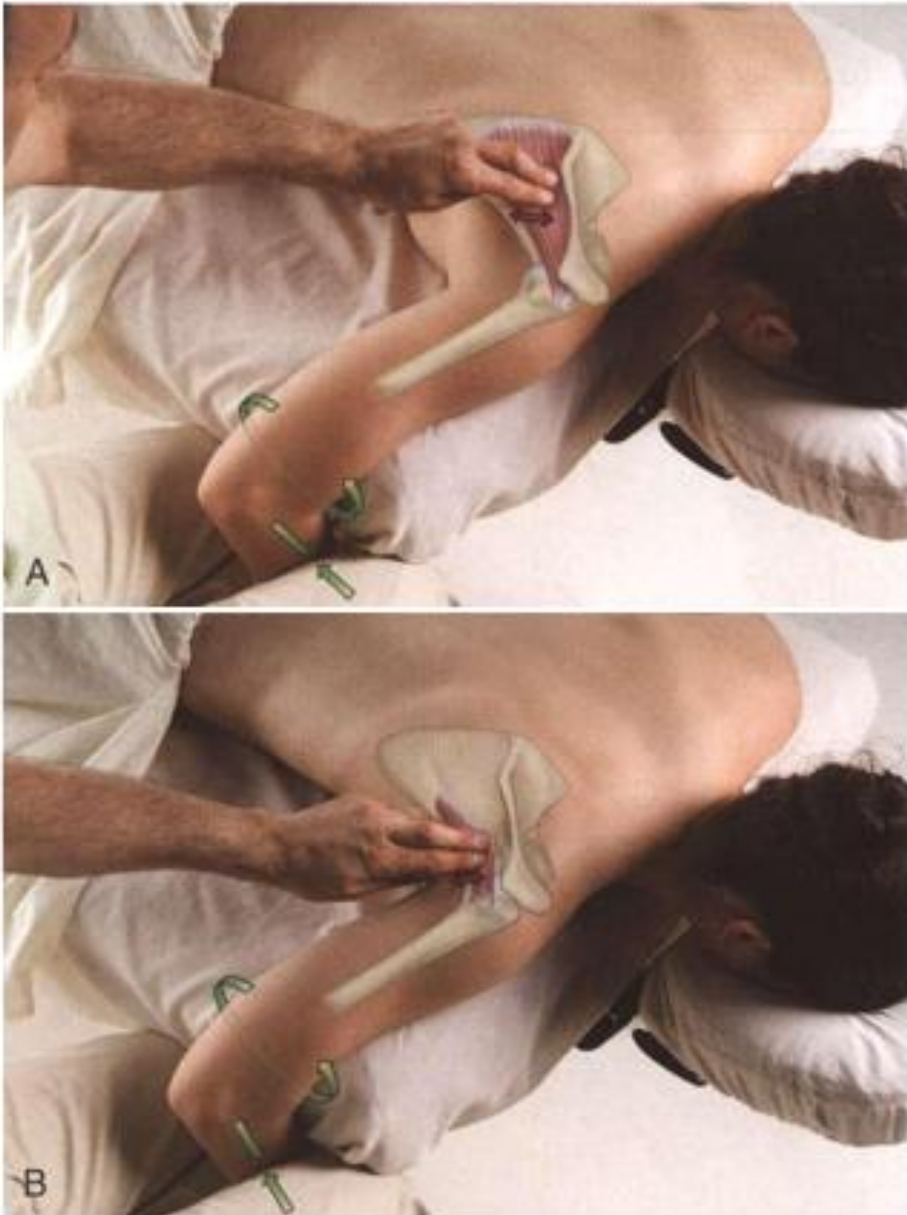


Figure 10-35 Palpation of the right infraspinatus and teres minor as the client laterally rotates the arm against resistance. **A** shows palpation of the infraspinatus. **B** shows teres minor palpation.



Mięsień podgrzebieniowy i obły mniejszy – punkty spustowe i promieniowanie bólu

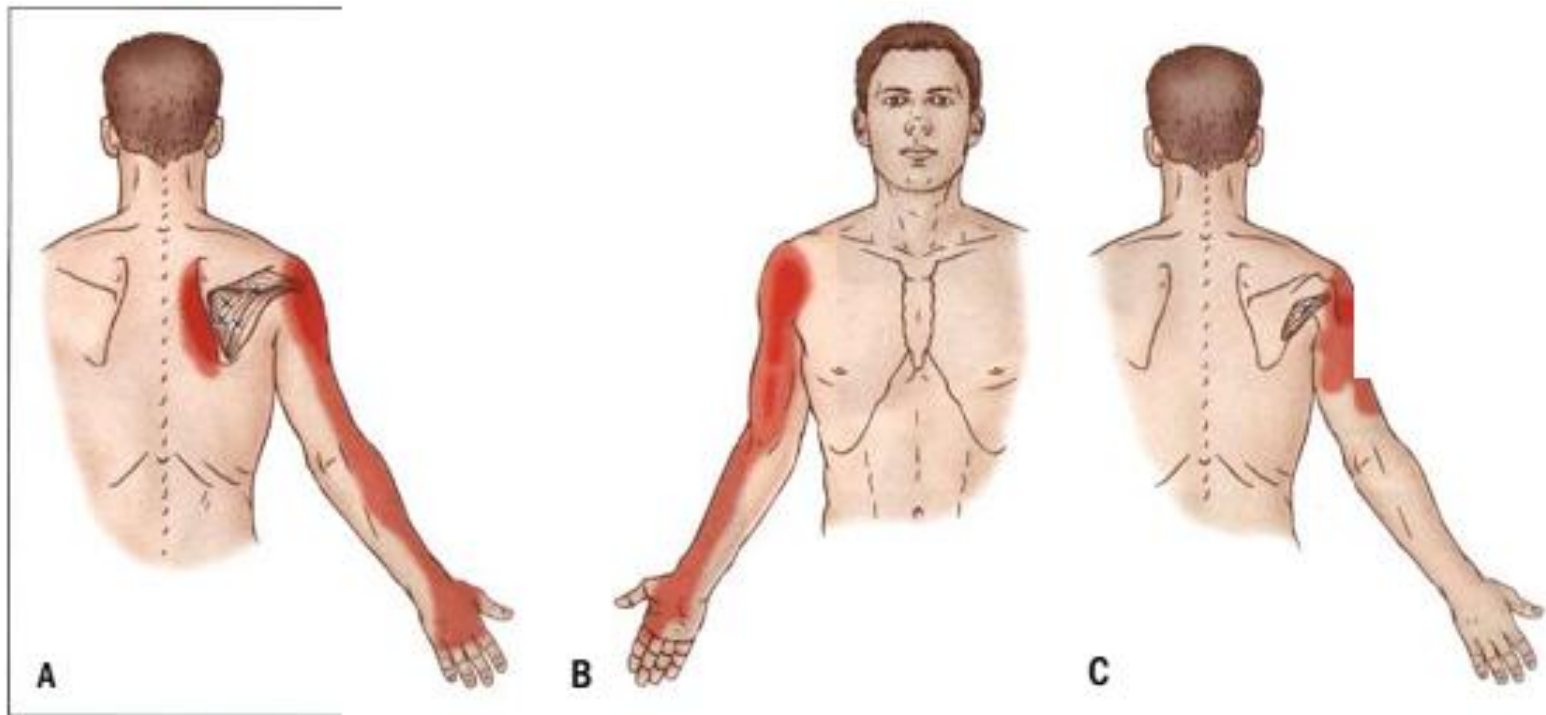


Figure 10-37 **A** is a posterior view illustrating common infraspinatus TrPs and their corresponding referral zone. **B** is an anterior view showing the remainder of the referral zone. **C** is a posterior view illustrating a common teres minor TrP and its corresponding referral zone.

Mięsień podgrzebieniowy i obły mniejszy - stretching



Figure 10-38 A stretch of the right infraspinatus and teres minor. The client's right arm is medially rotated and pulled upward and away from the back using a towel.



MIESIĘŃ OBŁY WIĘKSZY

Mięsień obły większy - anatomia

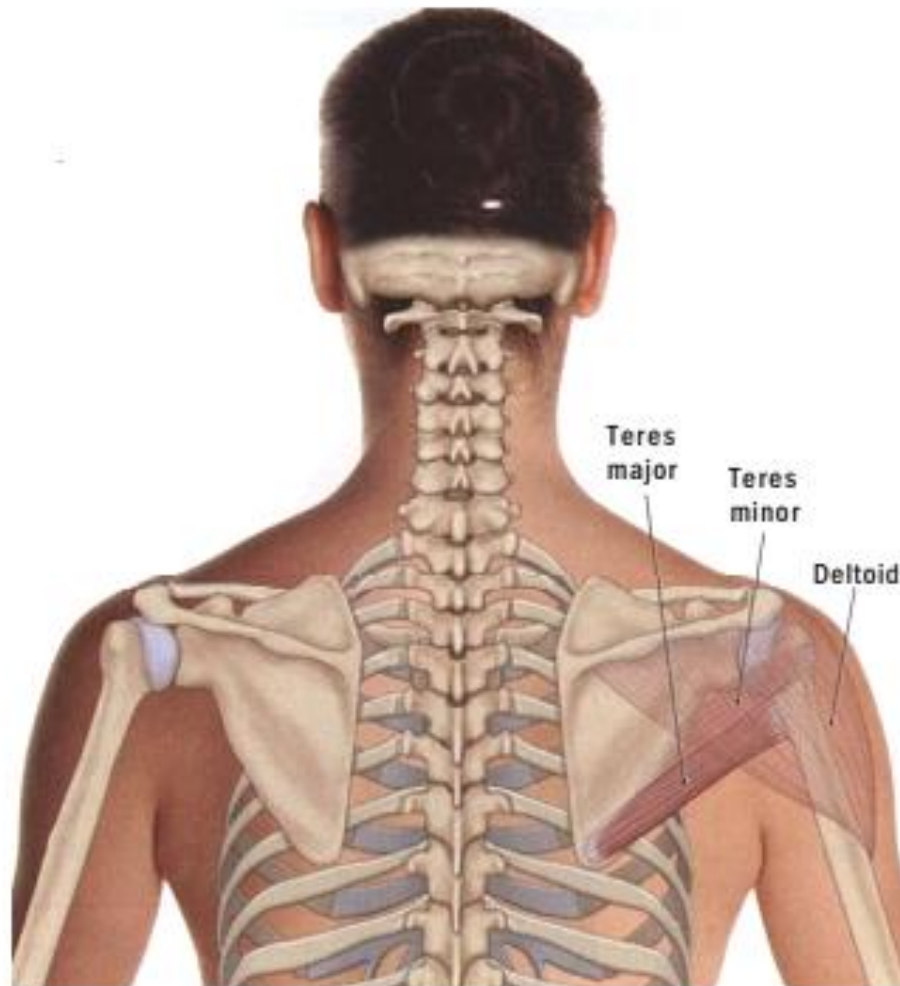


Figure 10-39 Posterior view of the right teres major. The deltoid and teres minor have been ghosted in.

Mięsień obły większy - palpacja



Palpation Key:
Place client's
forearm between your
knees; use your
knee to provide
resistance.



Mięsień obły większy – punkty spustowe i promieniowanie bólu



Figure 10-42 Posterior view illustrating common teres major TrPs and their corresponding referral zone.

Mięsień obły większy - stretching



Figure 10-43 A stretch of the right teres major. The client passively moves his arm into lateral rotation, flexion, and adduction in front of the body. Note: This also stretches the latissimus dorsi.



MIĘSIEŃ NADGRZEBIENIOWY

Mięsień nadgrzebieniowy – anatomia

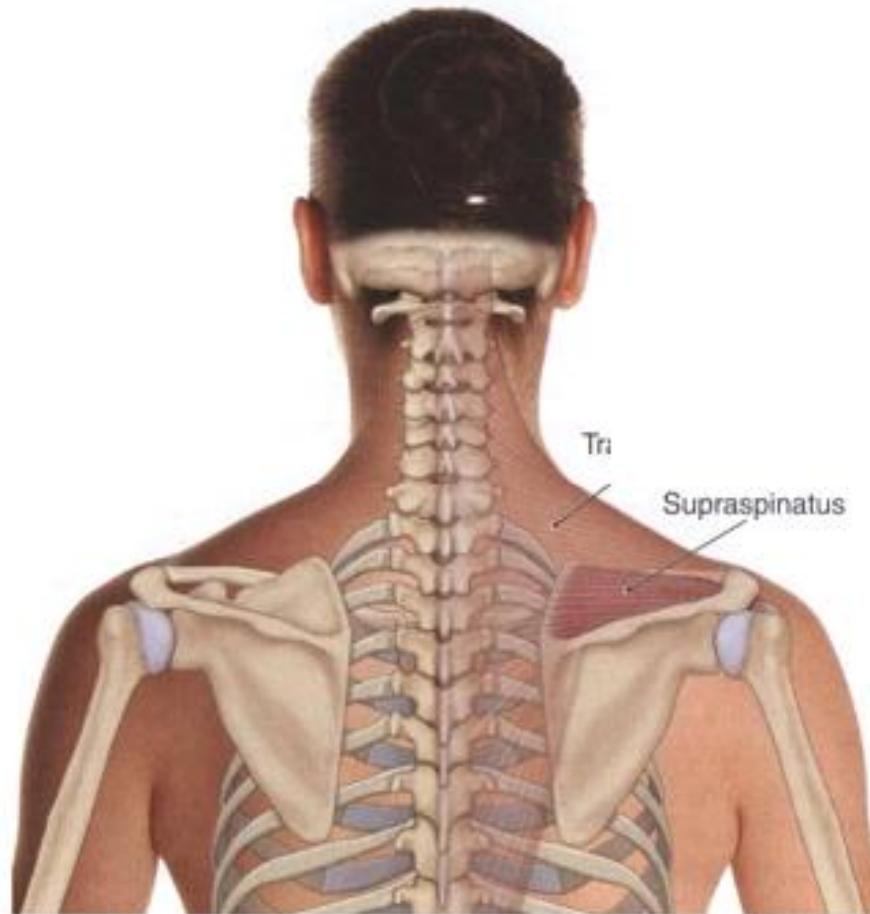


Figure 10-45 Posterior view of the right supraspinatus. The trapezius has been ghosted in.

Mięsień nadgrzebieniowy - palpacja



Figure 10-46 Starting position for prone palpation of the right supraspinatus.

Mięsień nadgrzebieniowy - palpacja



Figure 10-47 Palpation of the right supraspinatus. **A** shows palpation of the belly superior to the spine of the scapula. **B** shows palpation of the distal tendon just distal to the acromion process of the scapula.



Mięsień nadgrzebieniowy - palpacja



Figure 10-48 The supraspinatus can also be easily palpated with the client seated. To engage the supraspinatus, have the client either perform a very short range of motion (approximately 10 to 20 degrees) of abduction of the arm at the shoulder joint with the hand in the small of the back (to reciprocally inhibit the upper trapezius), or perform a short range of motion (approximately 10 to 20 degrees) of the arm halfway between abduction and flexion at the shoulder joint as seen here.

Mięsień nadgrzebieniowy – punkty spustowe i promieniowanie bólu

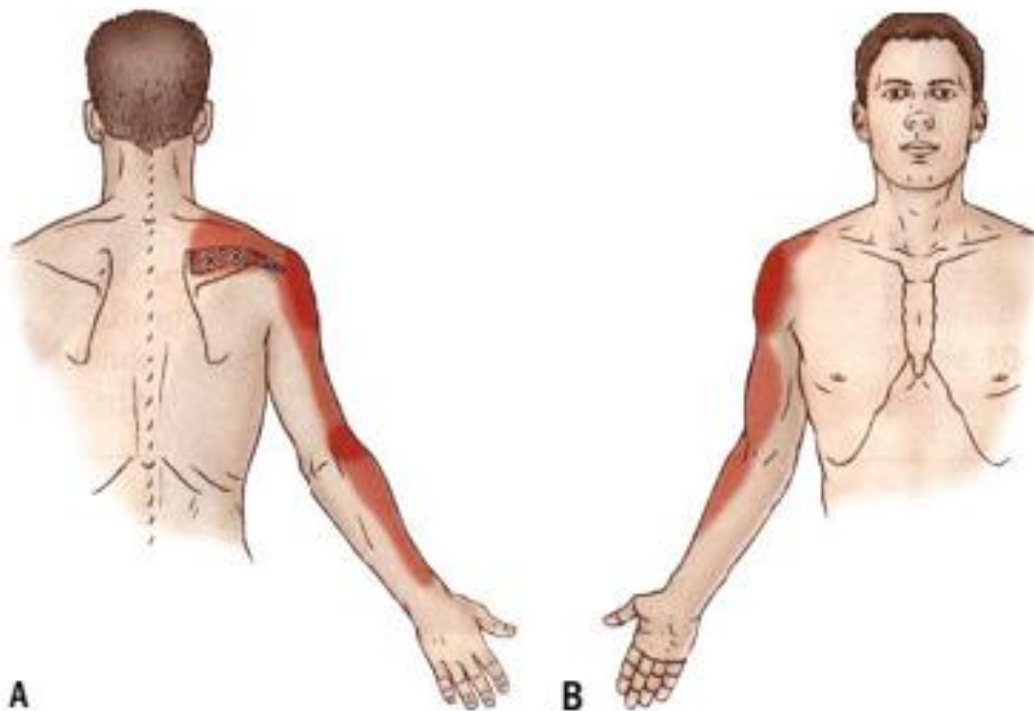


Figure 10-49 **A** is a posterior view illustrating common supraspinatus TrPs and their corresponding referral zone. **B** is an anterior view showing the remainder of the referral zone.

Mięsień nadgrzebieniowy - stretching



Figure 10-50 A stretch of the right supraspinatus. The client's right arm is extended and adducted behind the body. See also Figure 13-10, C, for another stretch of the supraspinatus.



MIĘSIEŃ PODŁOPATKOWY

Mięsień podłopatkowy - anatomia

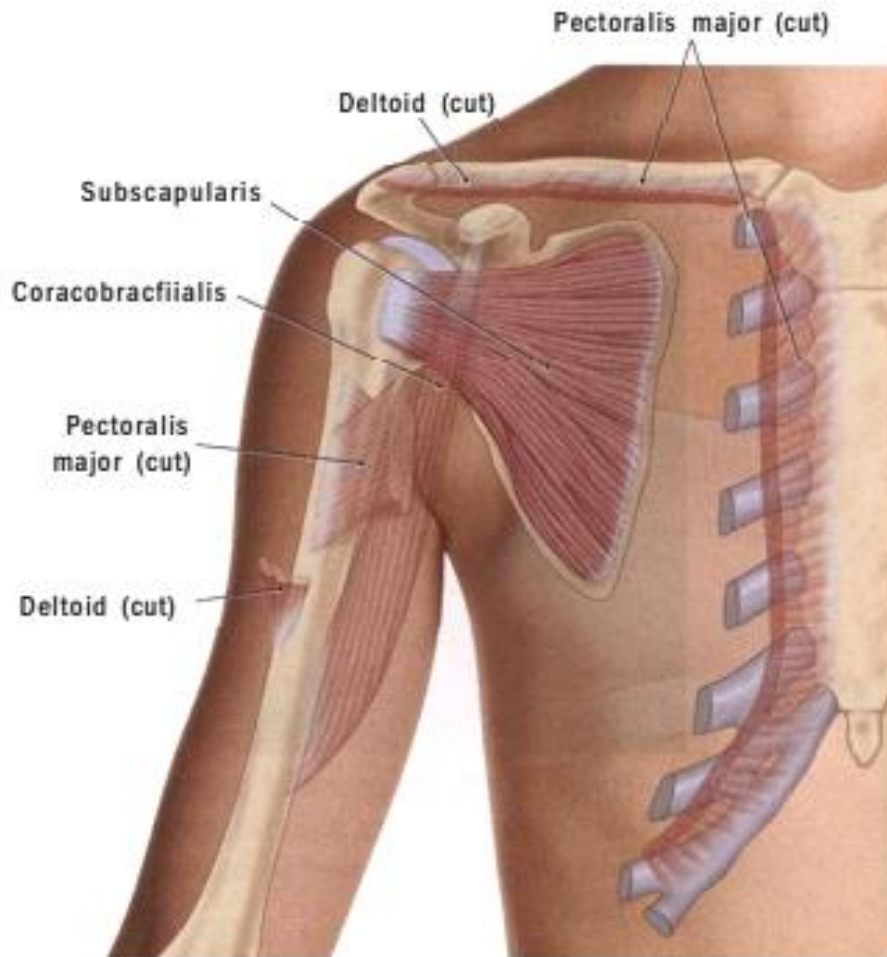


Figure 10-57 Anterior view of the right subscapularis. The coracobrachialis and cut deltoid and pectoralis major have been ghosted in.

Mięsień podłopatkowy - palpacja



Figure 10-58 Starting position for supine palpation of the right subscapularis.

Mięsień podłopatkowy - palpacja



Figure 10-59 Palpation of the right subscapularis. **A** shows palpation of the belly. Note: The client's arm is up so that the reader can visualize the belly of the muscle; the arm may be down and resting on the chest as seen in **B**, which shows the client medially rotating the arm to engage the subscapularis.

Mięsień podłopatkowy - palpacja



Figure 10-80 Palpation of the humeral tendon of the right subscapularis as the client medially rotates the arm against resistance (see Palpation Note #2).

Mięsień podłopatkowy – punkty spustowe i promieniowanie bólu

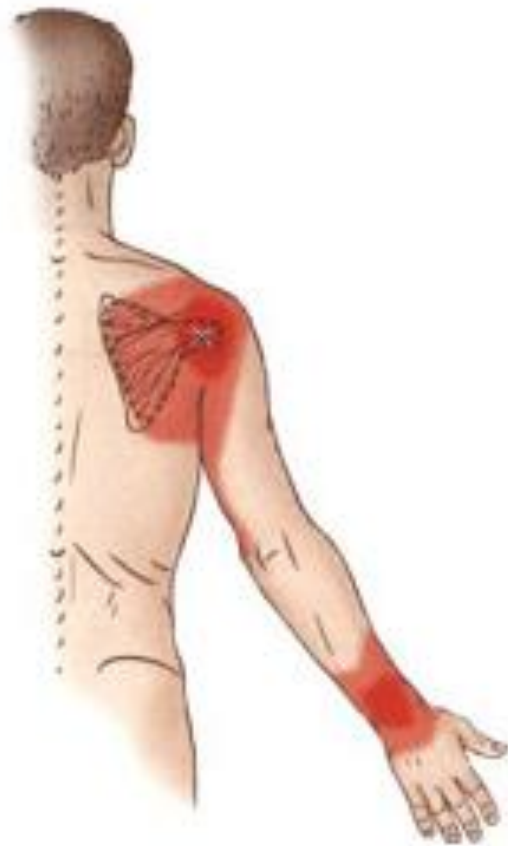


Figure 10-62 Posterior view illustrating a common subscapularis TrP and its corresponding referral zone.

Mięsień podłopatkowy - stretching



Figure 10-63 A stretch of the right subscapularis. The client laterally rotates the right arm and reaches for the ceiling.



MIĘSIEŃ NARAMIENNY

Mięsień naramienny – anatomia i funkcja

• ATTACHMENTS:

- o Lateral 1/3 of the clavicle and the acromion process and spine of the scapula to the deltoid tuberosity of the humerus

• ACTIONS:

- o The entire deltoid abducts the arm at the shoulder joint and downwardly rotates the scapula at the shoulder (glenohumeral) and scapulocostal joints.
- o The anterior deltoid also flexes, medially rotates, and horizontally flexes the arm at the shoulder joint.
- o The posterior deltoid also extends, laterally rotates, and horizontally extends the arm at the shoulder joint.

Starting position (Figure 13-6):

- o Client seated
- o Therapist standing behind the client
- o Palpating hand placed on the lateral arm immediately distal to the acromion process of the scapula
- o Support hand placed on the distal arm, just proximal to the elbow joint

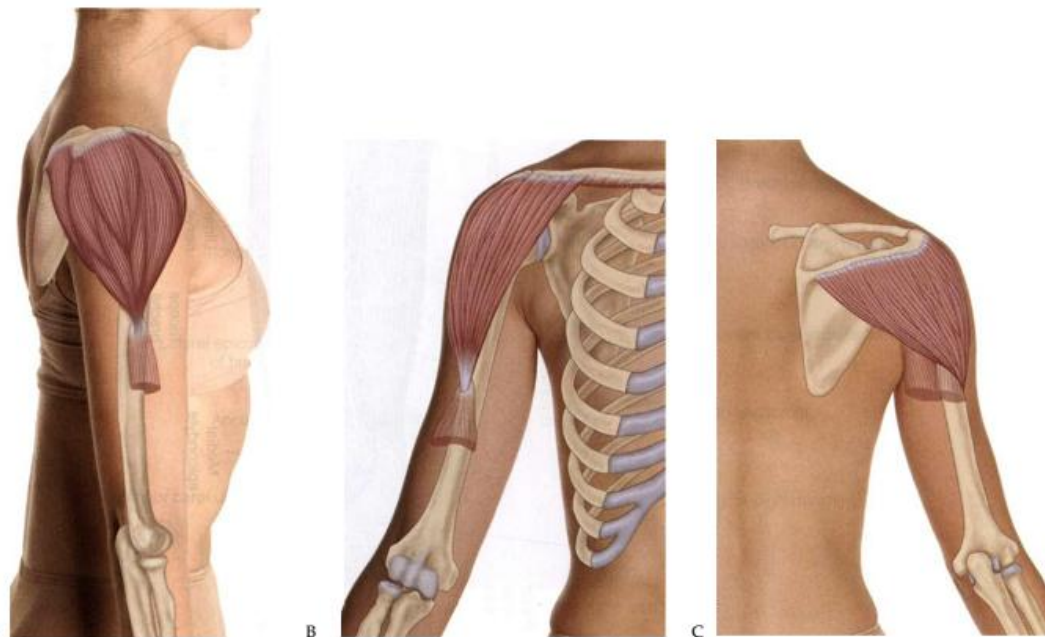


Figure 13-5 The right deltoid. A, Lateral view. The proximal end of the brachialis has been ghosted in. B, Anterior view. The proximal ends of the pectoralis major and brachialis have been ghosted in. C, Posterior view. The proximal end of the triceps brachii has been ghosted in.

Mięsień naramienny - palpacja

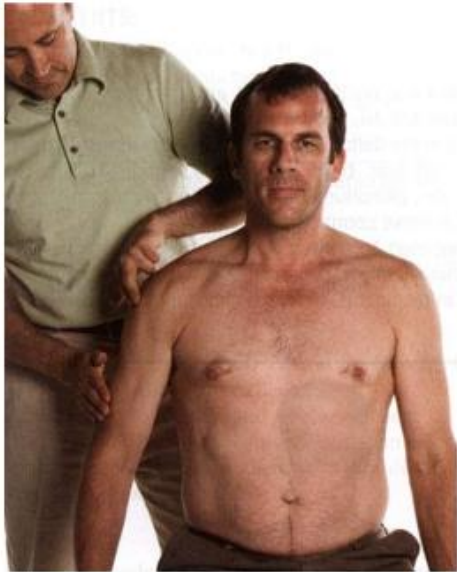


Figure 13-6 Starting position for seated palpation of the right deltoid.

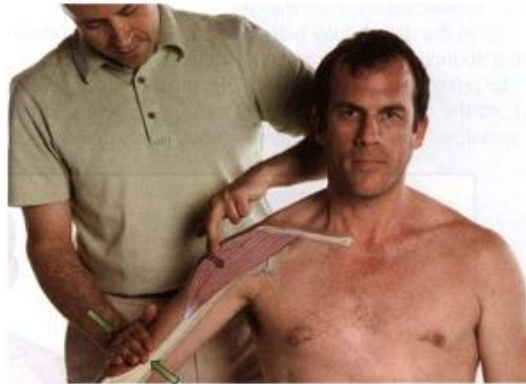
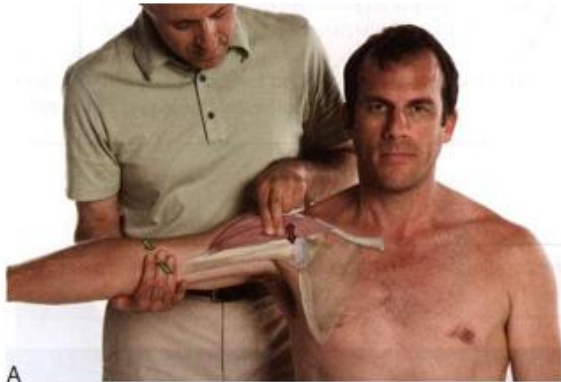


Figure 13-7 Close-up strumming of the right middle deltoid as the client abducts the arm against resistance.



A



B

Figure 13-8 Palpation of the anterior and posterior deltoid. A, Palpation of the anterior deltoid as the client horizontally flexes the arm against resistance. B, Palpation of the posterior deltoid as the client horizontally extends the arm against resistance.

Mięsień naramienny – punkty spustowe i promieniowanie bólu

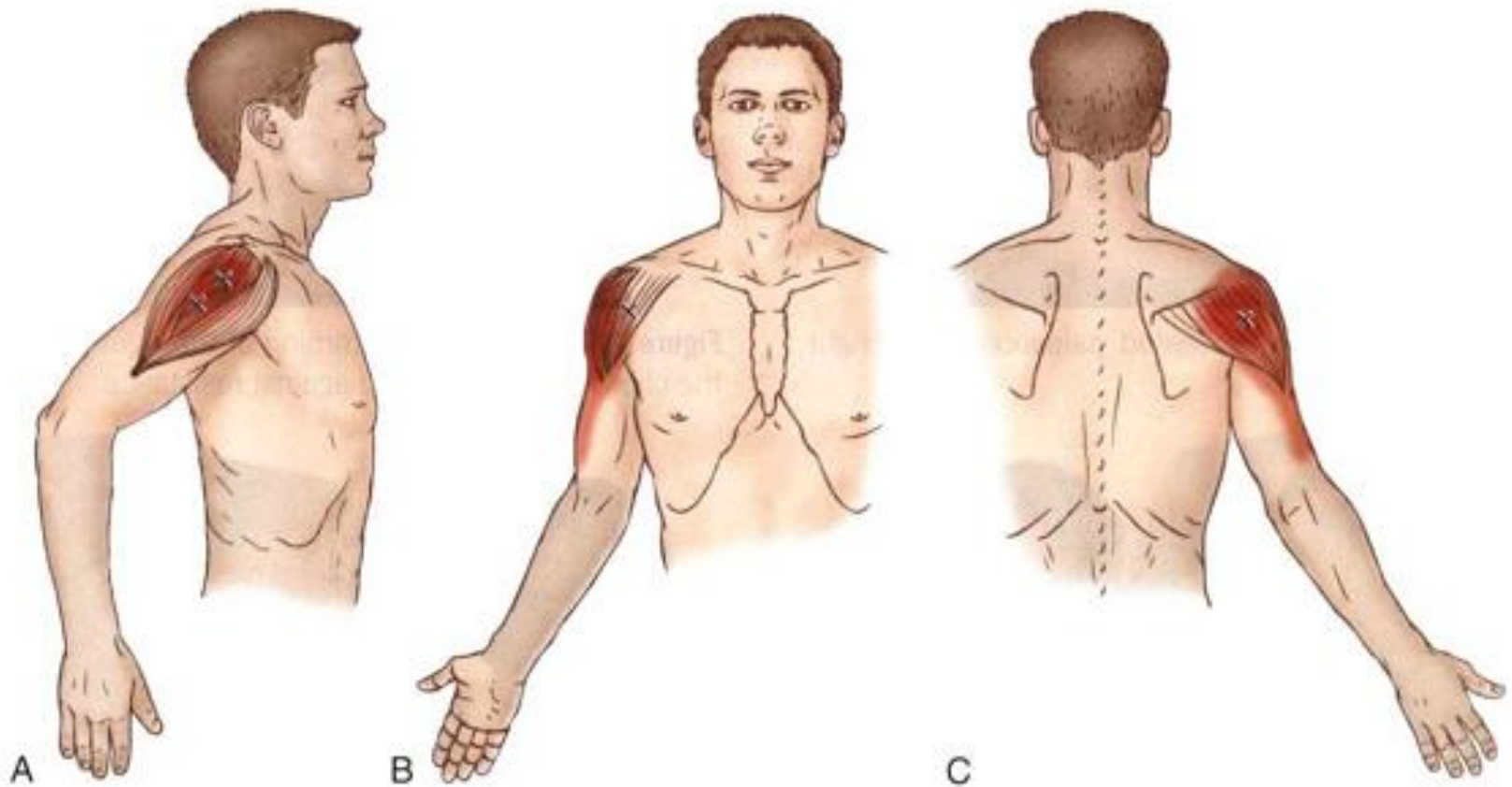


Figure 13-9 Common deltoid TrPs and their corresponding referral zones. **A**, Middle deltoid. **B**, Anterior deltoid. **C**, Posterior deltoid.

Mięsień naramienny - stretching

STRETCHING THE DELTOID

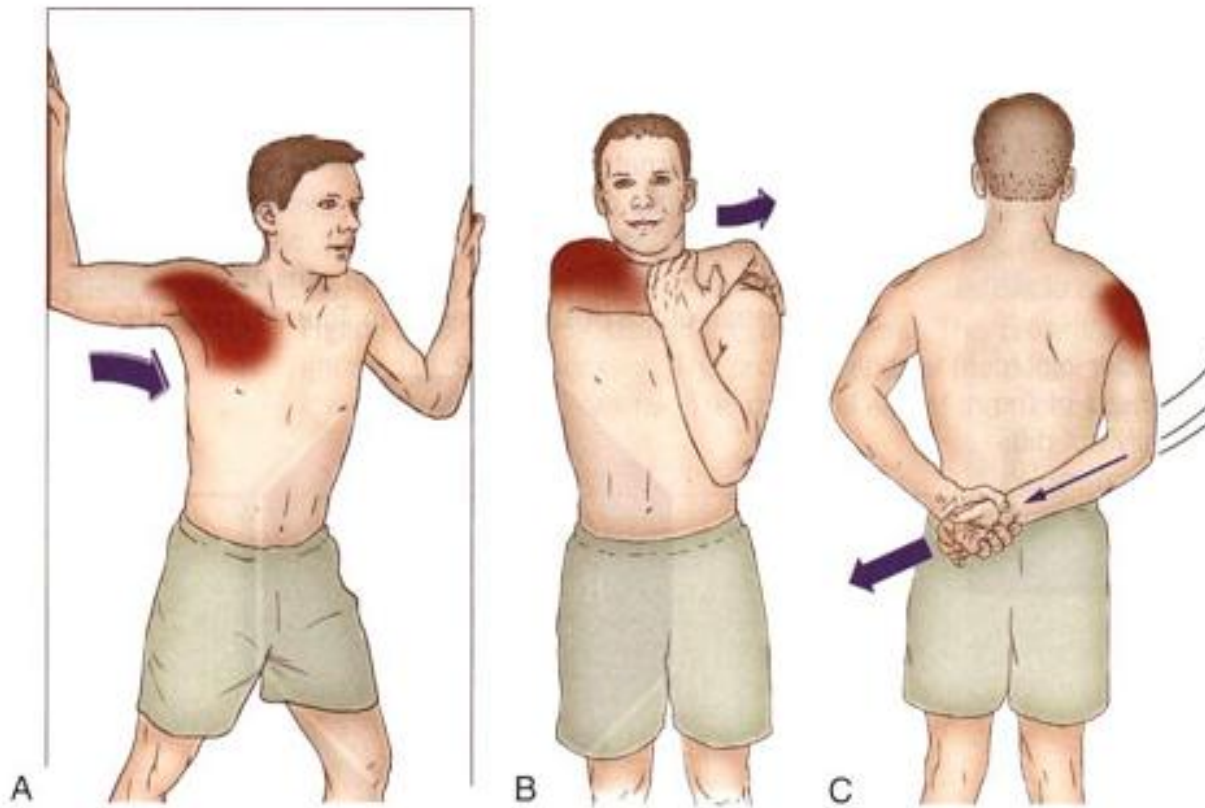


Figure 13-10 Stretches of the right deltoid. **A**, Stretch of the anterior deltoid. **B**, Stretch of the posterior deltoid. **C**, Stretch of the middle deltoid. Note: See also Figure 10-50 for another middle deltoid stretch.



MIĘSIEŃ DWUGŁOWY RAMIENIA

Mięsień dwugłowy ramienia – anatomia i funkcja

• ATTACHMENTS:

- o Supraglenoid tubercle (long head) and coracoid process (short head) of the scapula to the radial tuberosity and the deep fascia overlying the common flexor tendon

• ACTIONS:

- o Flexes the forearm at the elbow joint; supinates the forearm at the radioulnar joints
- o Flexes the arm at the shoulder joint
- o Long head abducts the arm at the shoulder joint; short head adducts the arm at the shoulder joint

Starting position (Figure 13-12):

- o Client seated with the arm relaxed and the forearm fully supinated and resting on the client's thigh
- o Therapist seated to the side and facing the client
- o Palpating hand placed in the middle of the anterior arm
- o Support hand placed on the client's anterior distal forearm, just proximal to the wrist joint

Palpation steps:

1. With mild to moderate force, resist the client from flexing the forearm at the elbow joint and feel for the contraction of the biceps brachii (Figure 13-13).
2. Strumming perpendicular to the fibers, first palpate to the distal tendon on the radius; then palpate toward the proximal attachments as far as possible.
3. Once the biceps brachii has been located, have the client relax it and palpate to assess its baseline tone.

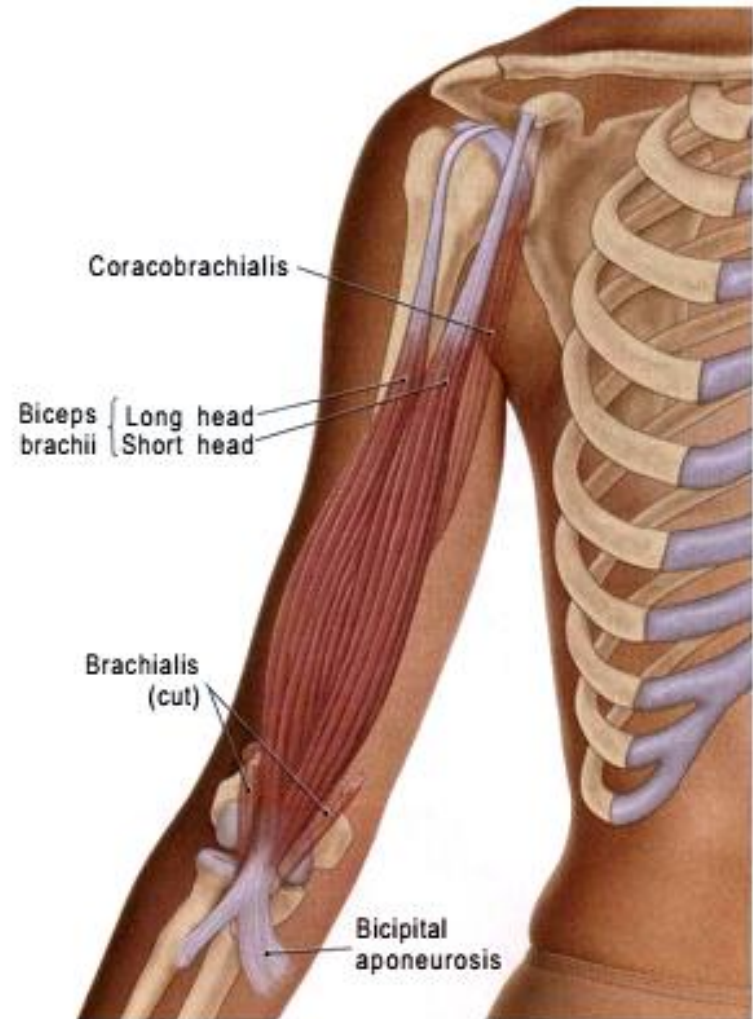


Figure 13-11 Anterior view of the right biceps brachii. The coracobrachialis and distal end of the brachialis have been ghosted in.

Mięsień dwugłowy ramienia - palpacja

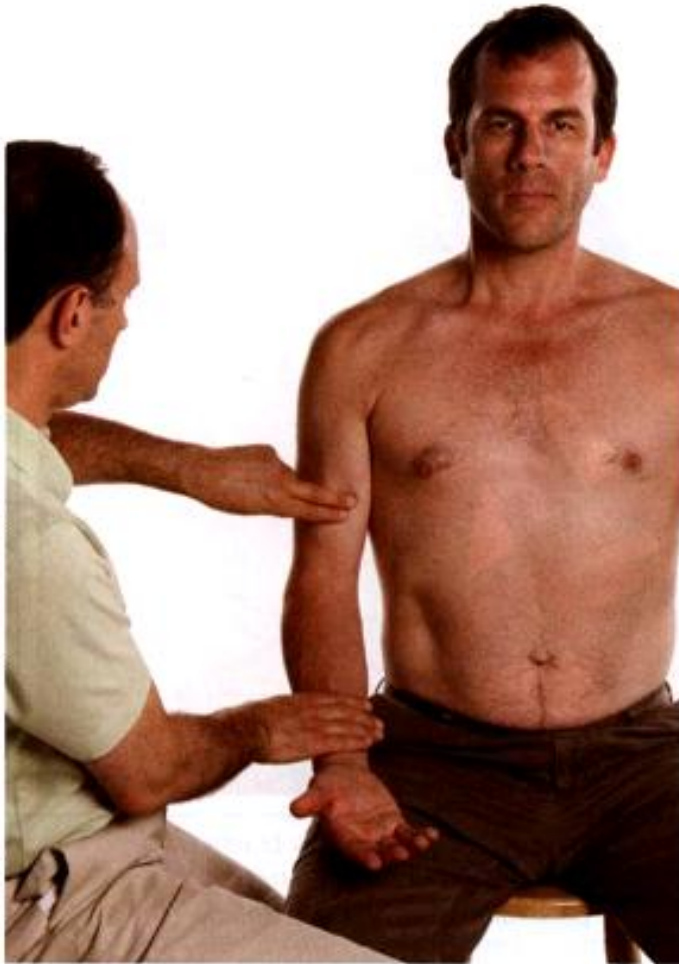


Figure 13-12 Starting position for seated palpation of the right biceps brachii.



Figure 13-13 Palpation of the right biceps brachii as the client flexes the forearm at the elbow joint against resistance.

Mięsień dwugłowy ramienia - palpacja



Figure 13-14 Palpation of the lateral border and proximal tendons of the right biceps brachii. **A**, Palpation of the border between the biceps brachii and the brachialis when they are relaxed. **B**, Palpation of the proximal tendons in the axilla deep to the pectoralis major (ghosted in) and anterior deltoid (not shown).

Mięsień dwugłowy ramienia – punkty spustowe i promieniowanie bólu

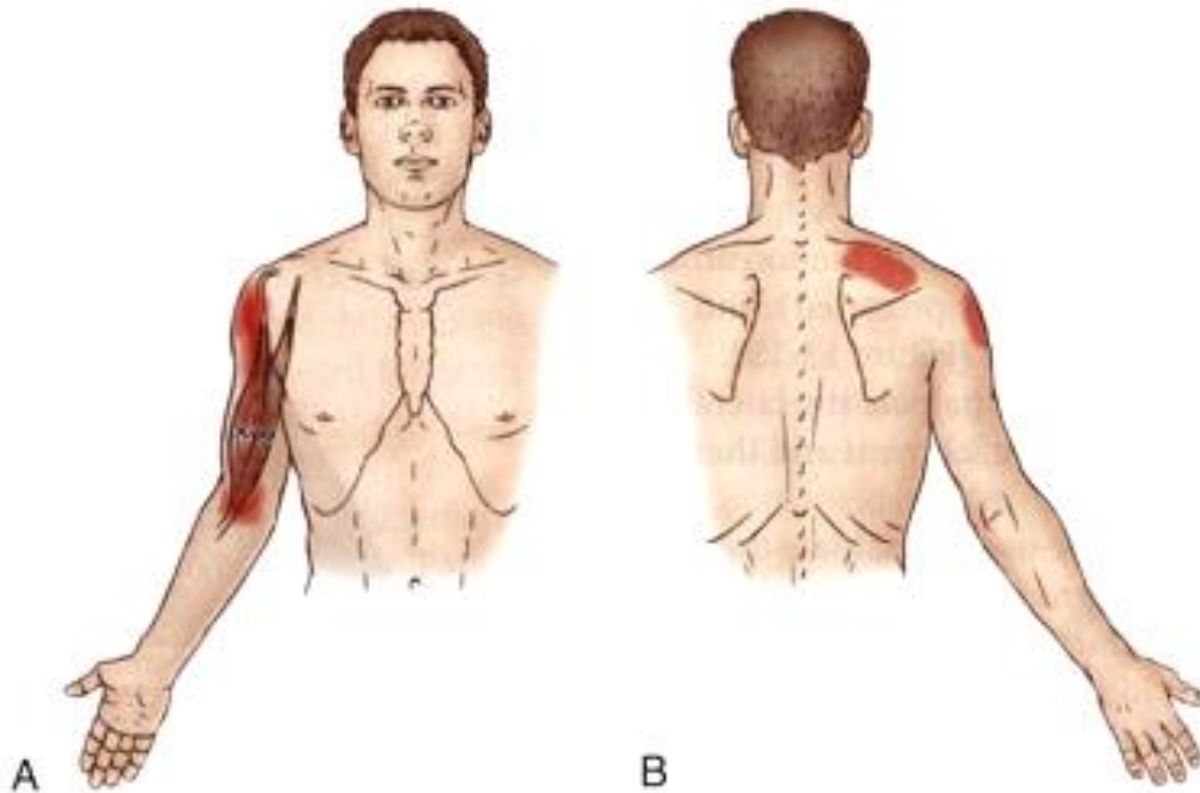


Figure 13-15 A, Anterior view illustrating common biceps brachii TrPs and their corresponding referral zone. B, Posterior view showing the remainder of the referral zone.

Mięsień dwugłowy ramienia - stretching

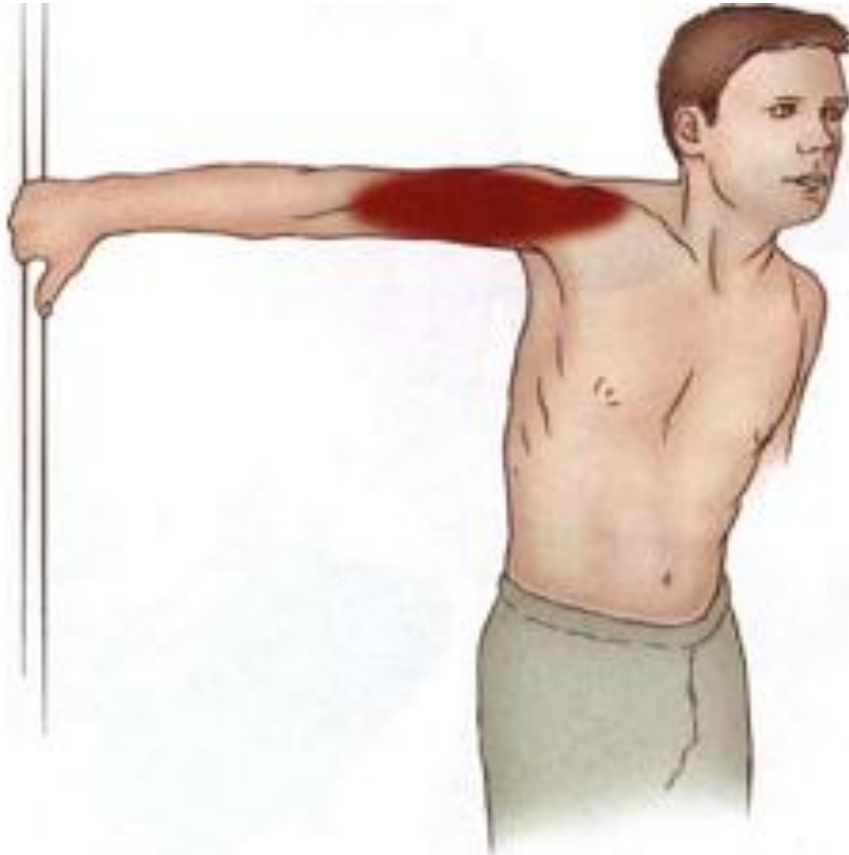


Figure 13-16 A stretch of the right biceps brachii. The elbow and shoulder joints are fully extended with the forearm fully pronated as the client holds onto a doorframe and leans away.



MIĘSIEŃ RAMIENNY

Mięsień ramienny – anatomia i funkcja

• ATTACHMENTS:

- o Distal 1/2 of the anterior shaft of the humerus (beginning just distal to the deltoid tuberosity) to the tuberosity and coronoid process of the ulna

• ACTIONS:

- o Flexes the forearm at the elbow joint

Starting position (Figure 13-18):

- o Client seated with the arm relaxed and the forearm fully pronated and resting on the client's thigh
- o Therapist seated to the side and facing the client
- o Palpating hand placed on the anterolateral arm (immediately posterior to the biceps brachii)
- o Supporting hand placed on the client's anterior distal forearm, just proximal to the wrist joint

Palpation steps:

1. With gentle force, resist the client from flexing the forearm at the elbow joint (with the forearm fully pronated), and feel for the contraction of the brachialis (Figure 13-19).
2. Strumming perpendicular to the fibers, palpate the lateral side of the brachialis to its proximal attachment and then to its distal attachment.
3. The preceding two steps can also be used to palpate the anterior aspect of the brachialis through the relaxed biceps brachii, as the brachialis is contracting.
4. Once the brachialis has been located, have the client relax it and palpate to assess its baseline tone.

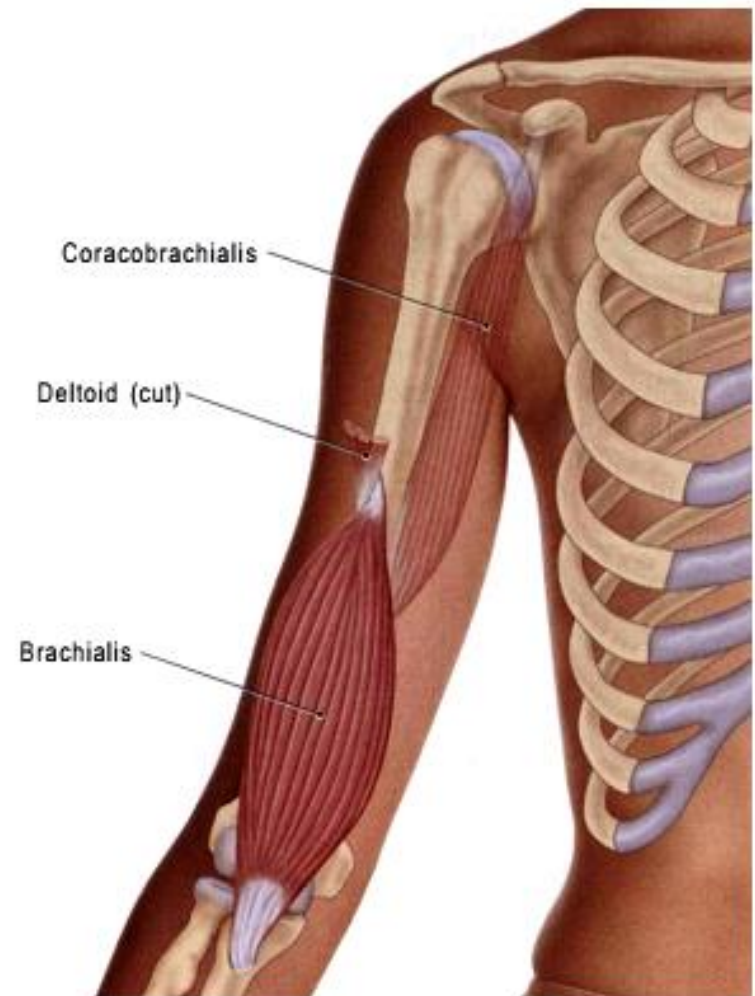


Figure 13-17 Anterior view of the right brachialis; the coracobrachialis and distal end of the deltoid have been ghosted in.

Mięsień ramienny - palpacja

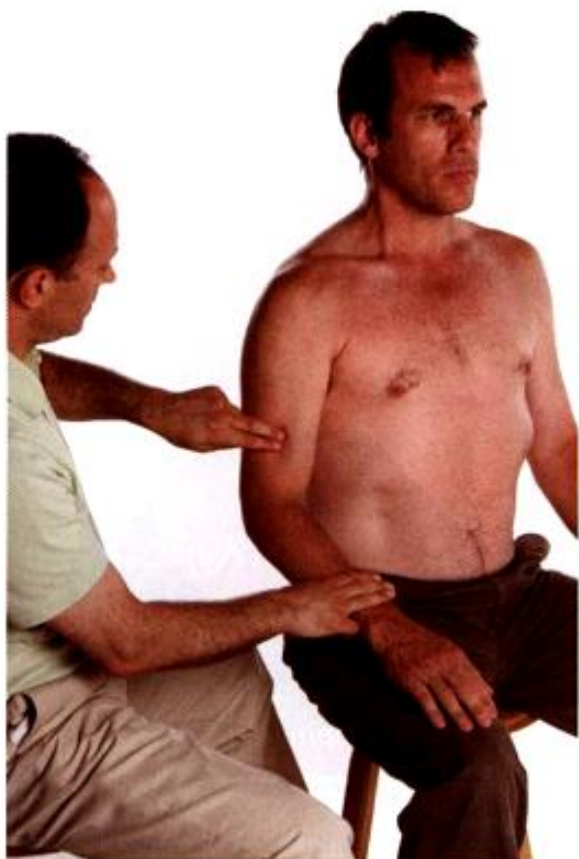


Figure 13-18 Starting position for seated palpation of the right brachialis.

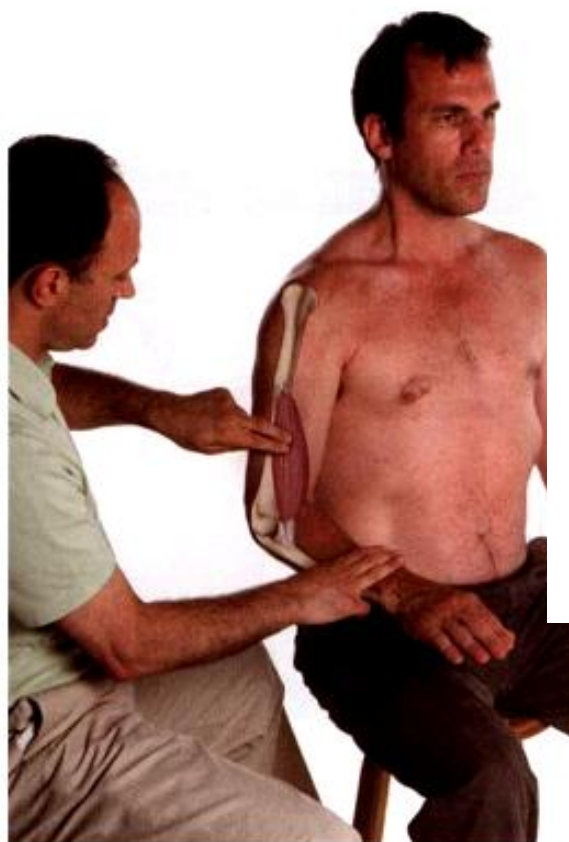


Figure 13-19 Palpation of the right brachialis as the client is gently resisted from flexing the forearm at the elbow joint, with the forearm in a fully pronated position.



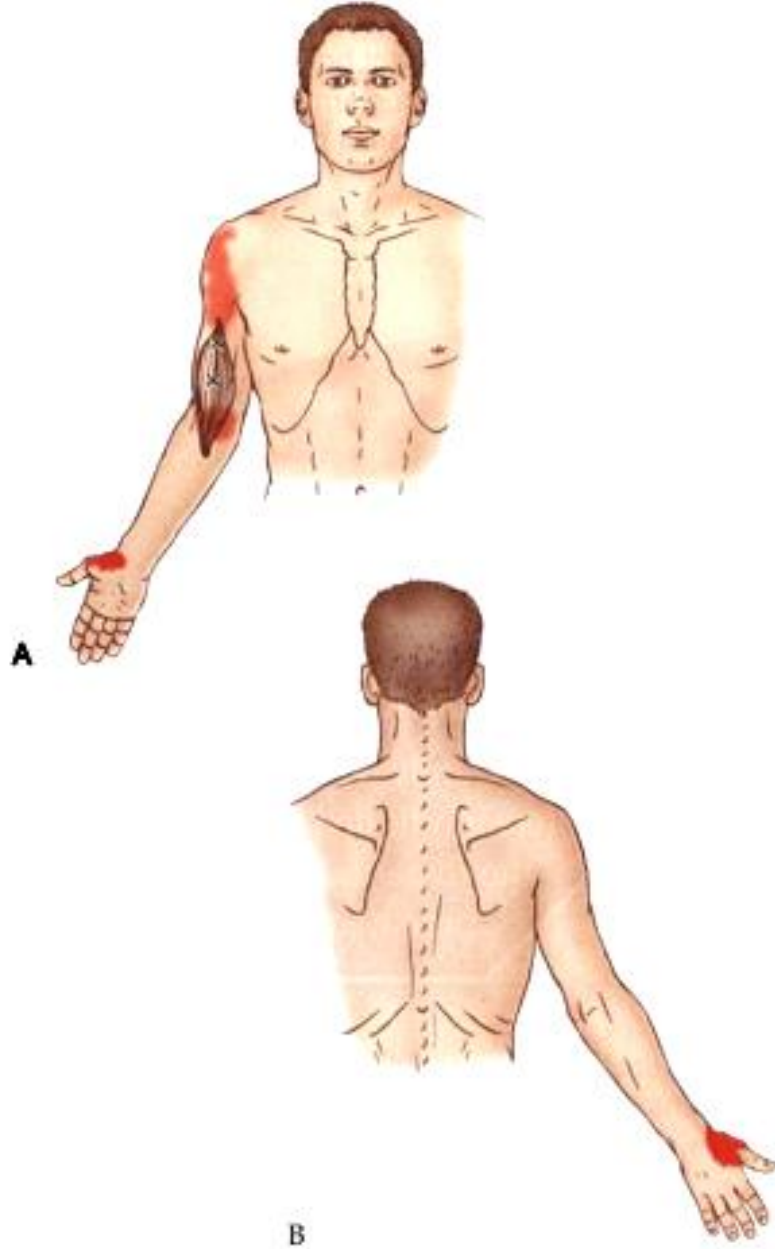
Mięsień ramienny - palpacja



Figure 13-20 Pushing the biceps brachii out of the way medially to access the anterior aspect of the right brachialis.



Figure 13-23 Palpation of the right biceps brachii and brachioradialis. **A**, Palpation of the biceps brachii with the client's forearm in full supination. **B**, Palpation of the brachioradialis with the client's forearm positioned halfway between full supination and full pronation.



Mięsień ramienny – punkty spustowe i promieniowanie bólów

Figure 13-21 **A**, Anterior view illustrating common brachialis TrPs and their corresponding referral zone. **B**, Posterior view showing the remainder of the referral zone.

Mięsień ramienny - stretching

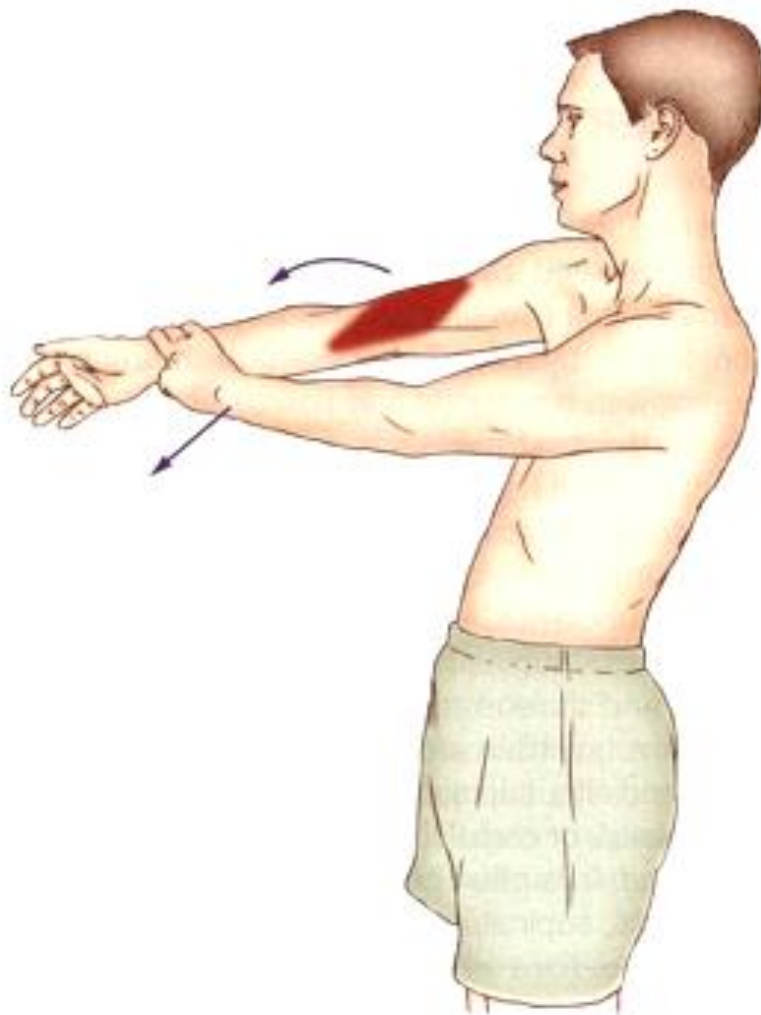


Figure 13-22 A stretch of the right brachialis. The client's elbow joint is fully extended with the forearm in a position that is half-way between full supination and full pronation.



MIĘSIEŃ TRÓJGŁOWY RAMIENIA

Mięsień trójgłowy ramienia – anatomia i funkcja

• ATTACHMENTS:

- o Infraglenoid tubercle of the scapula (long head) and the posterior shaft of the humerus (lateral and medial heads) to the olecranon process of the ulna

• ACTIONS:

- o Entire muscle extends the forearm at the elbow joint
- o Long head adducts and extends the arm at the shoulder joint

Starting position (Figure 13-31):

- o Client seated with the arm relaxed and hanging vertically, and the posterior forearm resting on the client's or therapist's thigh
- o Therapist seated in front of or to the side of the client
- o Palpating hand placed on the posterior surface of the arm

Palpation steps:

1. Ask the client to extend the forearm at the elbow joint by pressing the forearm against the thigh, and feel for the contraction of the triceps brachii (Figure 13-32).
2. Palpate from attachment to attachment by strumming perpendicular to the fibers.
3. Once the triceps brachii has been located, have the client relax it and palpate to assess its baseline tone.

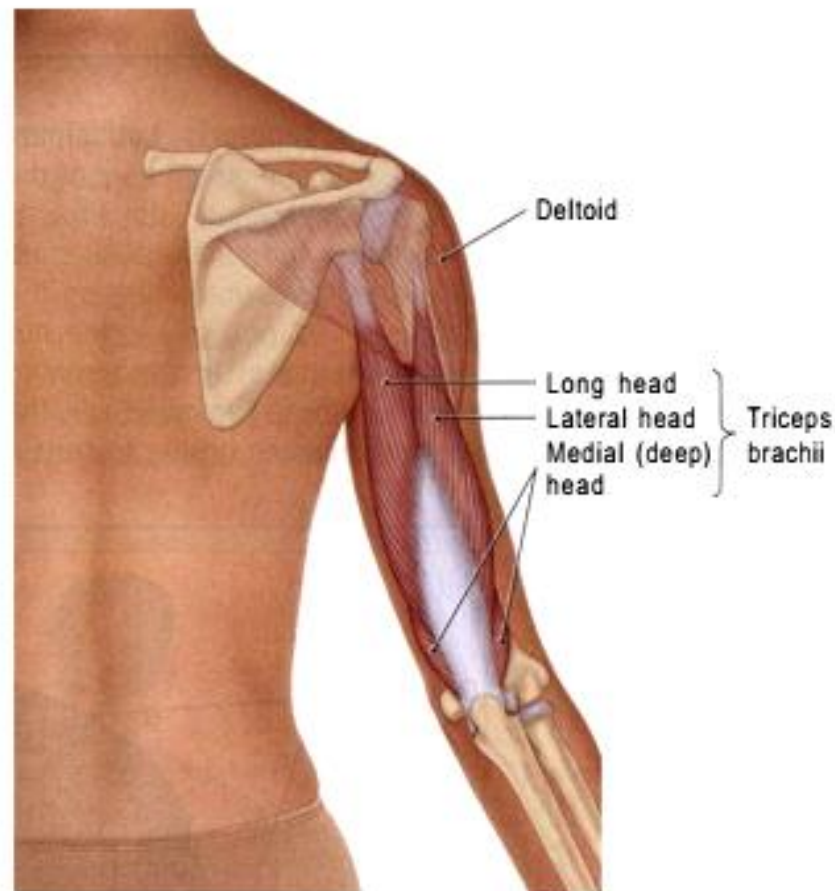


Figure 13-30 Posterior view of the right triceps brachii. The deltoid has been ghosted in.

Mięsień trójgłowy ramienia - palpacja



Figure 13-31 Starting position for seated palpation of the right triceps brachii.



Figure 13-32 Palpation of the belly of the right triceps brachii as the client extends the forearm against resistance.

Mięsień trójgłowy ramienia - palpacja



Figure 13-33 Palpation of the proximal attachment of the triceps brachii deep to the posterior deltoid (and teres minor, not shown).



Figure 13-34 The triceps brachii can be easily palpated with the client prone. Position the client prone with the arm abducted 90 degrees at the shoulder joint and resting on the table, and the forearm flexed 90 degrees at the elbow joint and hanging off the table. In this position, ask the client to extend the forearm at the elbow joint against gravity and feel for the contraction of the triceps brachii (added resistance to forearm extension with your support hand can be given).

Mięsień trójgłowy ramienia – punkty spustowe i promieniowanie bólu

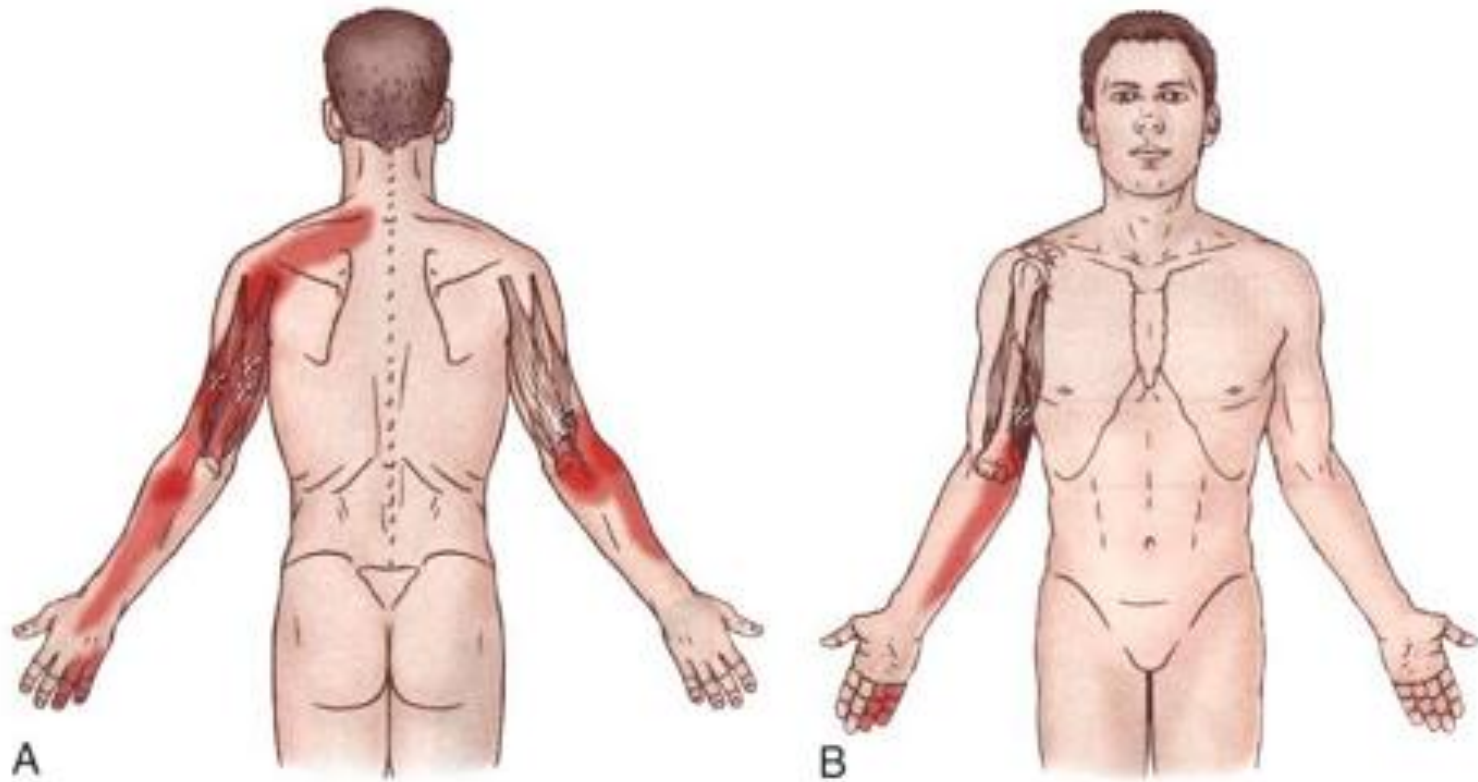


Figure 13-35 Common triceps brachii TrPs and their corresponding referral zones. **A**, Posterior view showing long and lateral head TrPs on the left and a medial head TrP and an attachment TrP on the right. **B**, Anterior view of another medial head TrP.

Mięsień trójgłowy ramienia – stretching

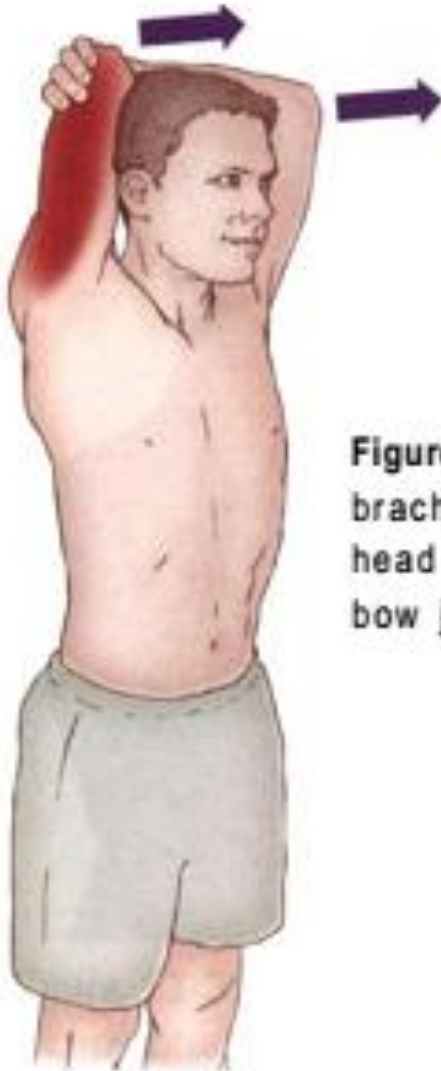


Figure 13-36 A stretch of the right triceps brachii. The client pulls the arm behind the head with the forearm fully flexed at the elbow joint.



MIĘSIEŃ RAMIENNO- PROMIENIOWY

Mięsień ramiennie-promieniowy – anatomia i funkcja

• ATTACHMENTS:

- o Proximal 2/3 of the lateral supracondylar ridge of the humerus to the styloid process of the radius

• ACTIONS:

- o Flexes the forearm at the elbow joint
- o Pronates the supinated forearm at the radioulnar joints to a position halfway between full pronation and supination, or supinates the pronated forearm at the radioulnar joints to a position halfway between full pronation and supination

Starting position (Figure 14-5):

- o Client seated with the arm relaxed and the forearm flexed at the elbow joint and in a position that is halfway between full pronation and full supination, and resting on the client's thigh
- o Therapist seated to the side and facing the client
- o Palpating hand placed on the proximal anterolateral forearm
- o Support hand placed on the client's anterior distal forearm, just proximal to the wrist joint

Palpation steps:

1. With moderate force, resist the client from flexing the forearm at the elbow joint and feel for the contraction of the brachioradialis (Figure 14-6).
2. Strumming perpendicular to the fibers, palpate from attachment to attachment.
3. Once the brachioradialis has been located, have the client relax it and palpate to assess its baseline tone.

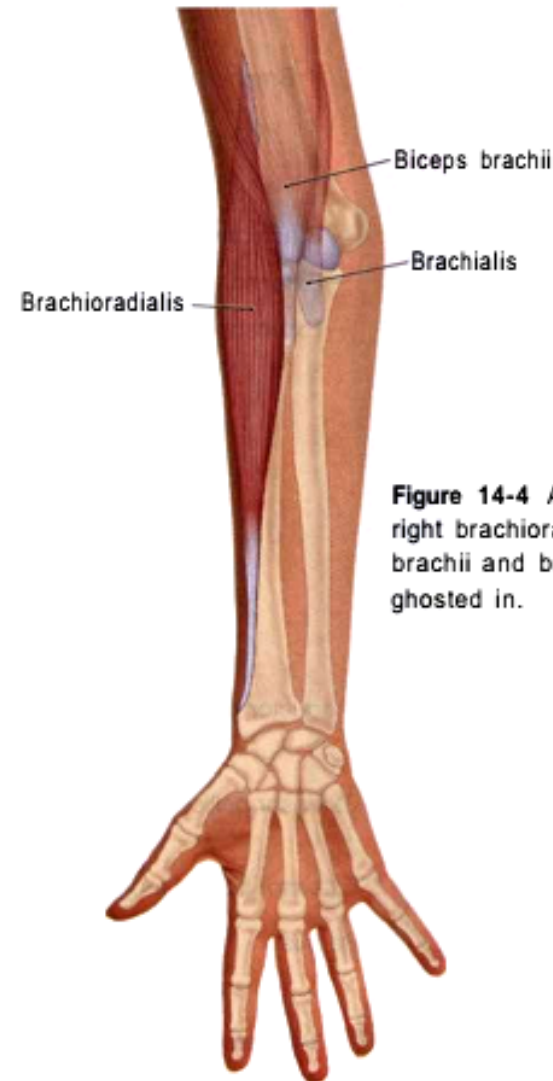


Figure 14-4 Anterior view of the right brachioradialis. The biceps brachii and brachialis have been ghosted in.

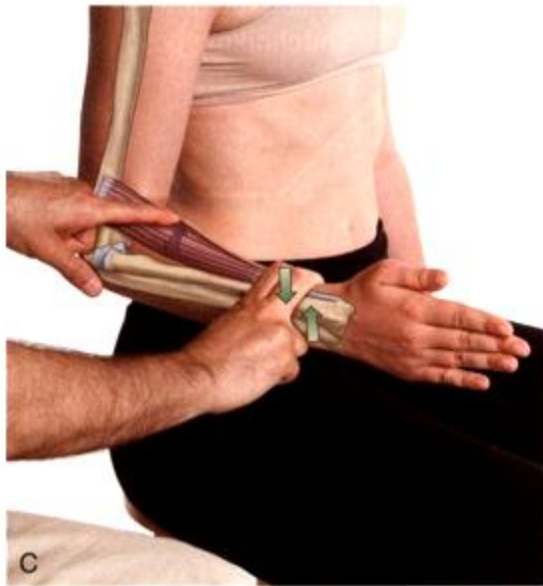
Mięsień ramienno-promieniowy - palpacja



Figure 14-5 Starting position for seated palpation of the right brachioradialis.



Figure 14-6 Palpation of the right brachioradialis as the client's forearm flexion at the elbow joint is resisted while the forearm is positioned halfway between full pronation and full supination. Note: The extensor carpi radialis longus has been ghosted in.



Mięsień ramienno- promieniowy - palpacja

Figure 14-7 Palpation of the three major elbow joint flexors as forearm flexion at the elbow joint is resisted. Note that the difference between the three palpations lies in the degree of pronation or supination of the forearm at the radioulnar joints. **A**, Palpation of the biceps brachii with the forearm fully supinated. **B**, Palpation of the brachialis with the forearm fully pronated. **C**, Palpation of the brachioradialis with the forearm halfway between full supination and full pronation.



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