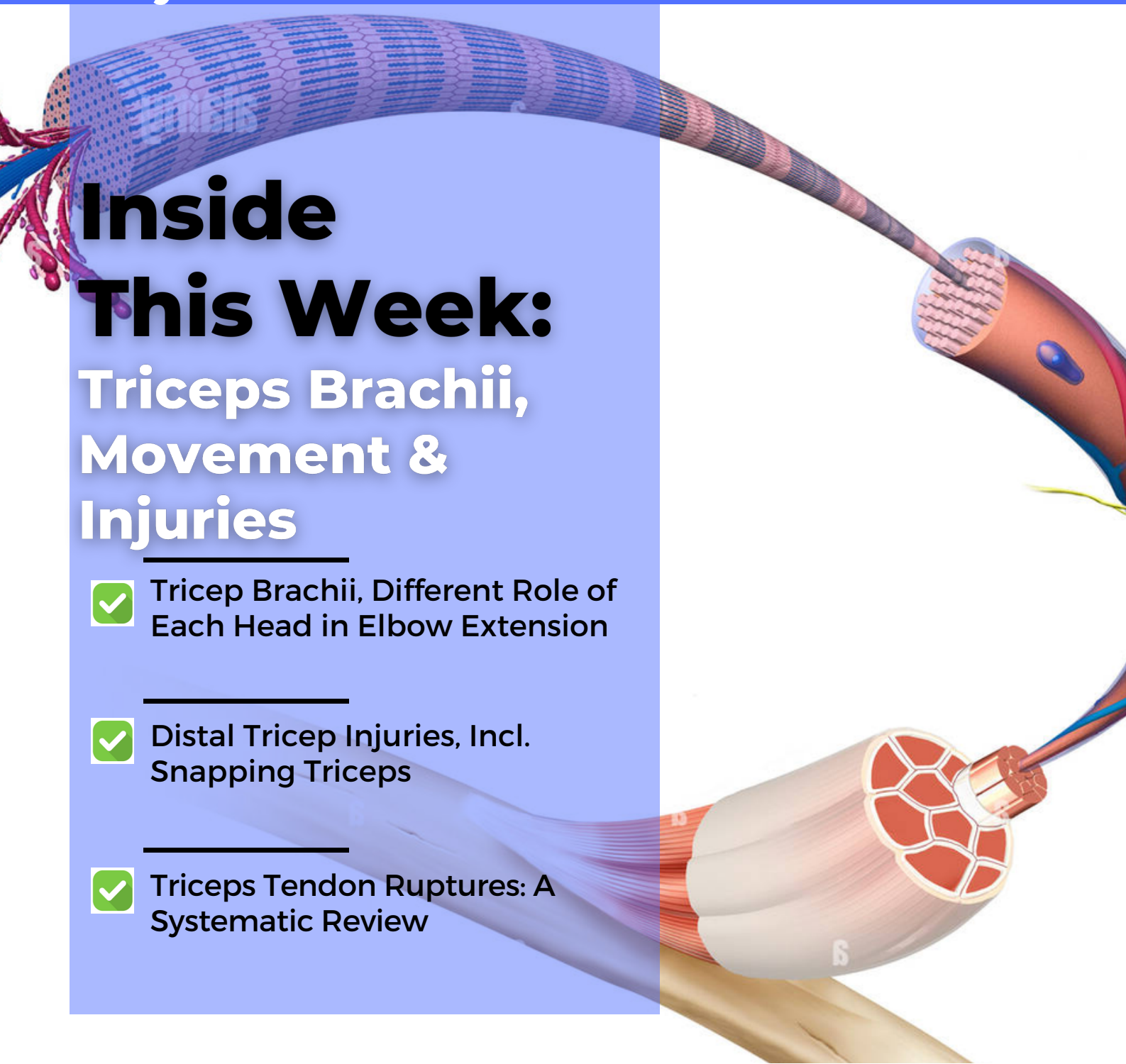
RAPID RESEARCH

@physicaltherapyresearch

July 2023



Inside This Week:

Triceps Brachii, Movement & Injuries

- Tricep Brachii, Different Role of Each Head in Elbow Extension
- Distal Tricep Injuries, Incl. Snapping Triceps
- Triceps Tendon Ruptures: A Systematic Review

TRICEP BRACHII, DIFFERENT ROLE OF EACH HEAD IN ELBOW EXTENSION

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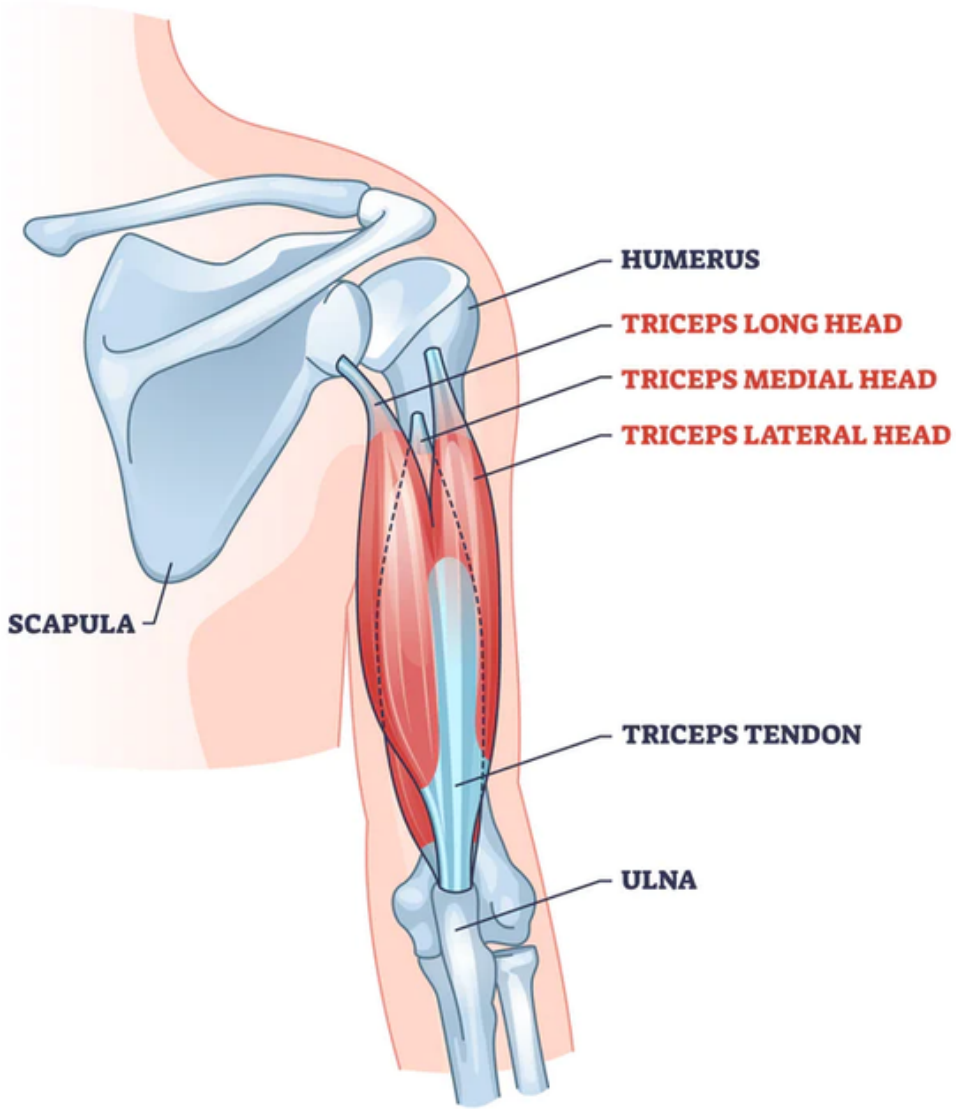
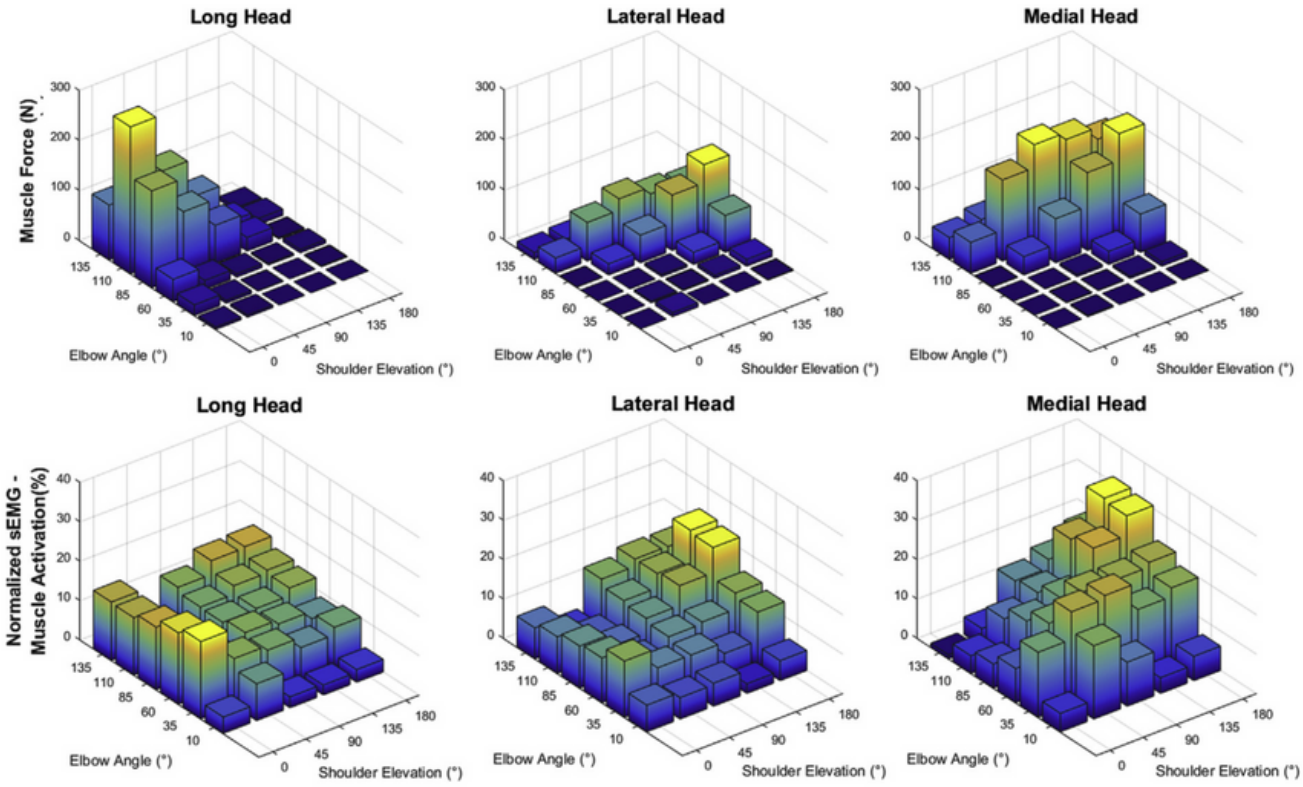
Click for Full Text (Kholinne et al. 2018)

This research investigated the functional role of each head of the triceps brachii muscle, depending on the angle of shoulder elevation, and to compare each muscle force and activity.



KEY FINDINGS

10 Participants performed elbow extension at 5 different angles of elevation. (0, 45, 90, 135, and 180°)



MAIN TAKEAWAYS

Each head of the TB has a different pattern of force and activity levels to extend the elbow during different shoulder elevations.

At low shoulder elevation, the long head generates the necessary force to extend the elbow.

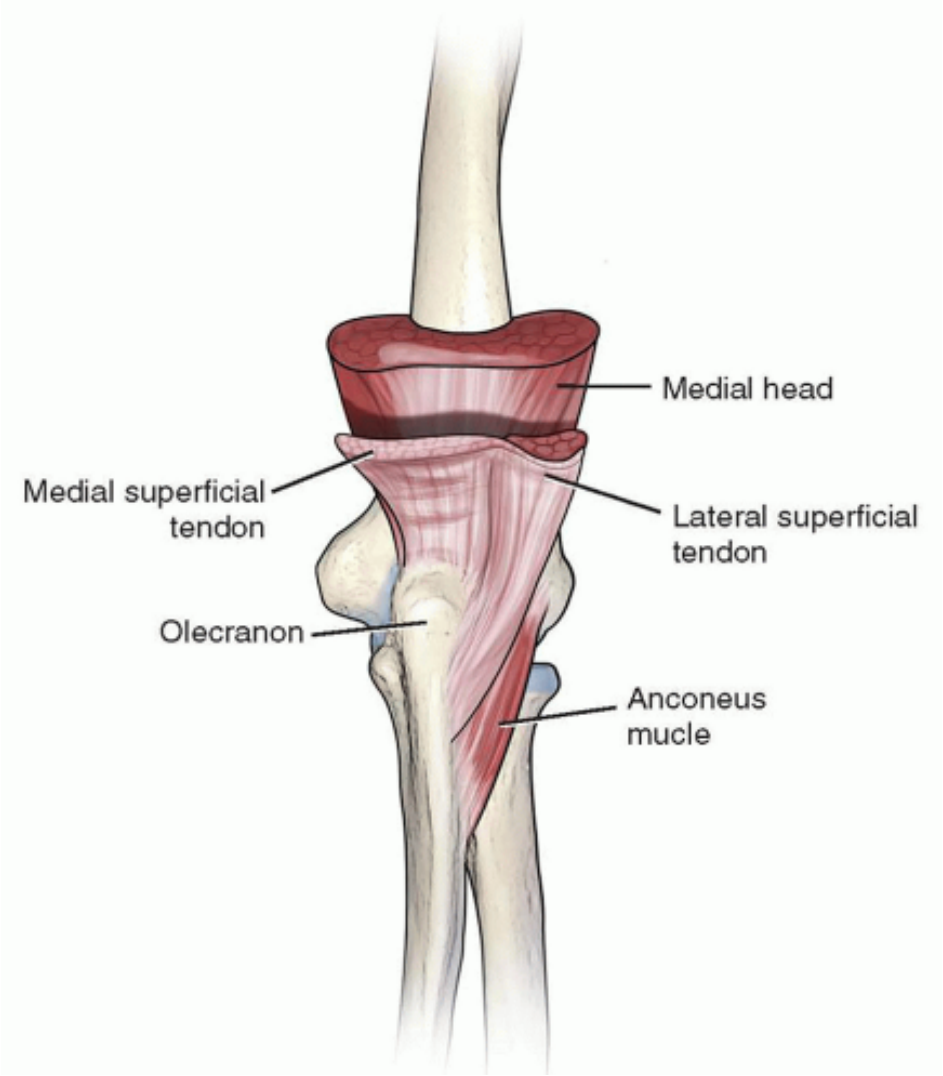
While in high shoulder elevation angles (at least 90), the medial head takes over as the major muscle for extending the elbow.

DISTAL TRICEP INJURIES; INCL. SNAPPING TRICEPS

JULY 2023

Click for Full Text (Shuttlewood et al. 2017)

This systematic review assessed the current literature on types of distal triceps injury and determined diagnosis and appropriate management.



KEY FINDINGS

47 studies included, 150+ participants were included

2 Main Conditions: Distal Triceps Tears

Triceps tears most common in weightlifting and football.
Typically a palpable gap exists.
Partial tears: managed conservatively with bracing and physiotherapy.
Acute tears: Often require surgical repair
Chronic tears: may need augmentation with tendon graft.

Snapping Triceps

Snapping triceps can be associated with ulnar nerve subluxation.
Ultrasound is ideal to diagnose and differentiate for ulnar nerve.
Treatment involves conservative measures such as activity avoidance, and if conservative management fails, surgical options can be successful.

MAIN TAKEAWAYS

Distal triceps tears are more common in males, often associated with steroid use and weightlifting.

Full thickness tears are diagnosed clinically, Partial thickness tears require MRI or US and are associated with intra-articular fractures & collateral ligament injuries.

Nonsurgical treatment is an option for some partial thickness tears.

Snapping triceps is more common on the medial side, presenting with various symptoms beyond snapping.

TRICEPS TENDON RUPTURES

JULY 2023

Click for Full Text (Dunn et al. 2017)

This review classified diagnostic signs, report outcomes and re-rupture rates, and identified potential predisposing risk factors in all reported cases of surgical treated TTR.

KEY FINDINGS

40 articles included; 262 patients.

Triceps Ruptures:
The average age of injury was 45.6 years.
The average time from injury to day of surgery was 24 days.

2 Most Common Medical Co-morbidities:
Renal disease (10%) and anabolic steroid use (7%) were the

The Dunn-Kusnezov Sign (DKS) was present in 61% to 88% of cases on the lateral x-ray film.
Postoperatively, 89% of patients returned to pre-injury activity level.

Re-rupture rate of 6% at an average follow-up of 34.6 months.
81% of the patients in this review underwent repair via suture fixation.

MAIN TAKEAWAYS

Renal disease (10%) & anabolic steroid use (7%); most common medical co-morbidities associated with distal triceps tears.

Double Kager's sign (DKS) on lateral x-ray film is a characteristic finding in 61% to 88% of TTR cases.

Surgical intervention has excellent outcomes, with 89% of patients returning to their pre-injury level of activity.

Re-rupture rate after surgical repair of TTR is low at 6%.

Suture fixation; most common surgical technique used.

No significant difference in outcomes between suture repair and suture anchor fixation.

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MEMBERS

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Help us by giving 1 minute of your time to leave feedback for us.

We would greatly appreciate any feedback you have, as it helps us continually improve!

Leave Review