

protraction and retraction anatomy

Protraction and retraction anatomy refers to the complex movements and structural relationships involving various body parts, particularly in the context of the shoulder girdle and the jaw. These movements are essential for a wide range of daily activities, from simple gestures to intricate sports maneuvers. Understanding the anatomy behind protraction and retraction is crucial for professionals in fields such as physical therapy, sports medicine, and anatomy education. This article will delve into the definitions, anatomical structures, their functions, and clinical significance of protraction and retraction, as well as related movements. Through a comprehensive examination, we aim to provide a detailed resource for those seeking to enhance their understanding of this important aspect of human anatomy.

- Introduction to Protraction and Retraction
- Anatomical Structures Involved
- Mechanisms of Protraction and Retraction
- Clinical Relevance
- Common Disorders Related to Protraction and Retraction
- Conclusion

Introduction to Protraction and Retraction

Protraction and retraction are terms used to describe specific movements of the body parts, particularly the scapulae and the mandible. Protraction refers to the movement of a body part forward or away from the midline, while retraction is the movement backward or toward the midline. These actions are vital in various activities, such as reaching, pushing, and pulling, and play a critical role in maintaining proper posture. The shoulder girdle and jaw are the primary areas where these movements occur, influenced by both muscular actions and joint mechanics.

Understanding the intricacies of protraction and retraction anatomy can aid in the diagnosis and treatment of muscular and skeletal conditions. Knowledge of how these movements function in healthy individuals is essential for identifying abnormalities in motion and for developing effective rehabilitation programs. This article will explore the anatomy involved in protraction and retraction, how these movements are executed, and their

significance in both health and disease.

Anatomical Structures Involved

The anatomy of protraction and retraction encompasses various structures, primarily in the shoulder girdle and the jaw. Each movement relies on a unique set of muscles, bones, and joints that work in concert to produce smooth, coordinated actions.

Scapula and Shoulder Girdle

The scapula, or shoulder blade, is a key player in the protraction and retraction of the shoulder girdle. It articulates with the humerus at the glenohumeral joint and connects to the clavicle at the acromioclavicular joint.

- **Protraction:** This occurs when the scapula moves laterally and anteriorly along the thoracic wall. The primary muscles involved include:

- Serratus anterior
- Pectoralis major
- Pectoralis minor

- **Retraction:** This involves the scapula moving medially and posteriorly towards the spine. The key muscles include:

- Rhomboid major
- Rhomboid minor
- Middle trapezius

Jaw and Mandible

Protraction and retraction also occur in the jaw, particularly involving the

mandible. These movements are crucial for functions such as chewing and speaking. The temporomandibular joint (TMJ) facilitates these actions.

- **Protraction:** The mandible moves forward, often aided by:
 - Lateral pterygoid muscle
 - Medial pterygoid muscle
- **Retraction:** The mandible moves backward, primarily through the action of:
 - Masseter muscle
 - Temporalis muscle

Mechanisms of Protraction and Retraction

The mechanisms of protraction and retraction involve complex neuromuscular coordination and the interplay of various anatomical structures. Understanding these mechanisms can enhance our knowledge of human movement and improve rehabilitation strategies.

Muscular Coordination

Muscle coordination is crucial for effective protraction and retraction. The activation of agonist and antagonist muscles ensures smooth motion and stability during these actions. For instance, during scapular protraction, the serratus anterior contracts while the rhomboids relax. This balance of muscle activity is essential for joint health and function.

Joint Mechanics

The joints involved in protraction and retraction, such as the shoulder and TMJ, exhibit specific movements that facilitate these actions. The glenohumeral joint allows for a wide range of motion in the shoulder, while the TMJ's unique structure accommodates both hinge and gliding movements,

enabling effective jaw function.

Clinical Relevance

Understanding protraction and retraction anatomy is particularly important in clinical settings. Many conditions can affect these movements, leading to pain and dysfunction.

Rehabilitation and Physical Therapy

Physical therapists often focus on improving protraction and retraction movements in patients recovering from injuries or surgeries. Targeted exercises can strengthen the involved muscles, enhance range of motion, and prevent compensatory movements that could lead to further injury. For instance, exercises that promote scapular retraction can help address postural issues commonly seen in individuals with rounded shoulders.

Assessment of Movement Dysfunction

Assessment of protraction and retraction can provide valuable insights into a patient's overall musculoskeletal health. Observing the symmetry and quality of these movements can help identify underlying issues, such as muscle imbalances or joint dysfunction, that may require intervention.

Common Disorders Related to Protraction and Retraction

Several disorders can impact protraction and retraction, leading to functional limitations and discomfort. Recognizing these conditions is essential for effective management.

Shoulder Impingement Syndrome

This condition occurs when the shoulder's rotator cuff tendons become irritated or inflamed, often due to repetitive overhead activities. Protraction and retraction movements can exacerbate symptoms, necessitating targeted rehabilitation.

Temporomandibular Joint Disorder (TMJD)

TMJD affects the function of the jaw, leading to pain and restricted movement. Protraction and retraction of the mandible may be compromised, impacting chewing and speaking abilities. Treatment often involves a combination of physical therapy, dental interventions, and lifestyle modifications.

Conclusion

Protraction and retraction anatomy is a critical area of study, encompassing various structures and movements essential for normal function. By understanding the complexities of these actions, professionals can better assess and treat conditions that impede movement. This knowledge not only aids in rehabilitation but also contributes to the broader understanding of human biomechanics, promoting better health outcomes for individuals experiencing musculoskeletal disorders.

Q: What are protraction and retraction in anatomy?

A: Protraction and retraction refer to movements of body parts, specifically involving the scapula and mandible. Protraction moves a part forward or away from the midline, while retraction moves it backward or toward the midline.

Q: Which muscles are involved in scapular protraction?

A: The primary muscles involved in scapular protraction include the serratus anterior, pectoralis major, and pectoralis minor.

Q: How does protraction differ from retraction?

A: Protraction involves moving a body part forward or away from the midline, while retraction involves moving it backward or toward the midline, as seen in the shoulder girdle and jaw movements.

Q: Why is understanding protraction and retraction important in physical therapy?

A: Understanding these movements is crucial for diagnosing and treating musculoskeletal disorders. It helps therapists design effective rehabilitation programs to restore function and alleviate pain.

Q: What conditions can affect protraction and retraction movements?

A: Conditions such as shoulder impingement syndrome and temporomandibular joint disorder (TMJD) can impair protraction and retraction, leading to pain and restricted movement.

Q: How can exercises improve protraction and retraction?

A: Targeted exercises can strengthen the relevant muscles, enhance range of motion, and correct postural imbalances, leading to improved function in protraction and retraction movements.

Q: Can protraction and retraction movements be assessed clinically?

A: Yes, assessing these movements can provide insights into a patient's musculoskeletal health, helping to identify muscle imbalances or joint dysfunction that may require intervention.

Q: What is the role of the temporomandibular joint in retraction?

A: The temporomandibular joint (TMJ) facilitates the retraction of the mandible, allowing for backward movement essential for functions like chewing and speaking.

Q: Are there specific rehabilitation techniques for shoulder protraction issues?

A: Yes, rehabilitation may include strengthening exercises for the scapular retractors, stretching for the protractors, and functional training to restore normal movement patterns.

Q: How does posture affect protraction and retraction movements?

A: Poor posture can lead to muscle imbalances that affect the efficiency of protraction and retraction, often resulting in discomfort and increased risk of injury.

Protraction And Retraction Anatomy

Find other PDF articles:

<http://www.speargroupplc.com/algebra-suggest-003/files?ID=lZn88-8778&title=algebra-mat.pdf>

protraction and retraction anatomy: Inderbir Singh's Textbook of Anatomy V Subhadra Devi, 2019-06-29

protraction and retraction anatomy: Cunningham's Manual of Practical Anatomy: Head and neck Daniel John Cunningham, 1921

protraction and retraction anatomy: The Anatomy of the Joints of Man Sir Henry Morris, 1879

protraction and retraction anatomy: Manual of Practical Anatomy: Thorax, head and neck Daniel John Cunningham, 1896

protraction and retraction anatomy: A Text-book of Dental Anatomy and Physiology John Humphreys, Alfred William Wellings, 1923

protraction and retraction anatomy: Human Anatomy A. Halim, 2008-01-31 The present book, profusely illustrated with more than 1000 illustrations, covers the syllabus recommended by the Dental Council of India. Since the Head and the Neck has to be studied in all its details, it has been dealt with thoroughly. Gross anatomy of brain, and cranial nerves has been covered with a view for the greater understanding of the anatomy of head and neck and its importance in clinical application. Gross anatomy of thorax and abdomen has been dealt with in a manner which will facilitate physical examination of a medial or surgical case when the students are taught general medicine and surgery and should have a knowledge of the viscera in the chest or abdomen. Anatomy of the extremities described gives an idea of the construction of the limbs in general and covers the anatomy of the whole body. Fundamentals of medical genetics are dealt with so that the student can understand the genetic basis of diseases. General principles of anthropology is briefly covered to make the student appreciate that anatomy is the foundation not only of medicine, but also of man's physical and cultural development. It is hoped that the present book will prove a suitable text for dental students.

protraction and retraction anatomy: Manual of Practical Anatomy: Head and neck Daniel John Cunningham, 1921

protraction and retraction anatomy: Text-book of anatomy Daniel John Cunningham, 1909

protraction and retraction anatomy: Manual of practical anatomy. v.3 c.2, 1919-20 Daniel John Cunningham, 1921

protraction and retraction anatomy: Cunningham's Manual of Practical Anatomy , 1918

protraction and retraction anatomy: Quain's Elements of Anatomy Jones Quain, 1878

protraction and retraction anatomy: Manual of Anatomy Alexander MacGregor Buchanan, 1917

protraction and retraction anatomy: Anatomy of the King Crab (Limulus Polyphemus, Latr.) Richard Owen, 1873

protraction and retraction anatomy: Manual of Anatomy, Systematic and Practical, Including Embryology Alexander McGregor Buchanan, 1914

protraction and retraction anatomy: Manual of practical anatomy, v.2 Daniel John Cunningham, 1908

protraction and retraction anatomy: The Elements of Anatomy. ... Second Edition, Revised and Corrected Jones QUAIN, 1867

protraction and retraction anatomy: Anatomy of the Invertebrata Carl Th. Ernst Siebold, 1874

protraction and retraction anatomy: A Text-book of veterinary anatomy Septimus Sisson, 1910

protraction and retraction anatomy: The Anatomy of the Domestic Animals Septimus Sisson, 1914

protraction and retraction anatomy: Elements of anatomy Jones Quain, 1915

Related to protraction and retraction anatomy

Dharmendrasinh Raj - PMP®, PSPO I, PSM I, SAFe® Agilist - LinkedIn View Dharmendrasinh Raj - PMP®, PSPO I, PSM I, SAFe® Agilist's profile on LinkedIn, a professional community of 1 billion members

Dharmendrasinh Raj - PMP®, PSPO I, PSM I, SAFe® Agilist - LinkedIn Product Management | Project Management | Digital | ECommerce | Business Analysis | Information Technology | Travel & Hospitality | Airline PSS | Data Science

10+ "Dharmendrasinh Raj" profiles | LinkedIn View the profiles of professionals named "Dharmendrasinh Raj" on LinkedIn. There are 10+ professionals named "Dharmendrasinh Raj", who use LinkedIn to exchange information, ideas,

Dharmendrasinh Raj - -- | LinkedIn Experience: L&T-S&L Education: L.D. College of Engineering, Ahmedabad, India, WITH aggregate distinction. Location: 390007 166 connections on LinkedIn. View

Raj Bhalodia - Program Manager - OneAdvanced | LinkedIn "Raj is a Proactive project manager and worked different projects with him and we are also part of same scrum group predominantly into retail banking sector"

Dharmendrasinh Raj - PMP®, PSPO I, PSM I, SAFe® Agilist - LinkedIn Dharmendrasinh Raj - PMP®, PSPO I, PSM I, SAFe® Agilist Product Management | Digital | ECommerce | Project Management | Business Analysis | Information Technology | Airline PSS |

Dharmendrasinh Raj - Product Owner - People View the professional profile of Dharmendrasinh Raj, a seasoned Product Owner with over 17 years, 8 months of experience, on Bayt.com

Functional & Technical Business Analyst - LinkedIn As a techno-functional business analyst, I excel at transforming complex requirements into actionable insights that drive operational efficiency

Raj Dharmendrasinh - LinkedIn Nigeria Instrumentation and Control Engineer at Dangote Industries Limited Experience: Dangote Industries Limited Location: Lagos 2 connections on LinkedIn. View Raj Dharmendrasinh's

Joe C. - Lead Product Development Analyst (Revenue Management) Devises custom solutions to resolve business and technology challenges. Experience: Singapore Airlines Education: NUS Location: Singapore 346 connections on LinkedIn.

How To Send a Meeting Recap (With Template and Example) Sending a meeting recap can summarize discussions and important details for attendees or those employees who could not attend. In this article, we discuss what a meeting

4 Examples: Meeting Recap Email Template (with Tips) When crafting a meeting recap email, one must focus on the main components that ensure all participants are on the same page post-meeting. This includes a clear subject

20 Meeting Summary Email Samples - Written Samples Crafting a clear, concise, and informative meeting summary email is an essential skill in today's fast-paced business world. It helps ensure that everyone is on the same page,

15 Professional Meeting Recap Email Samples - RequestLetters Clear, concise meeting recap emails keep everyone aligned and accountable. These 15 professional samples will help you communicate outcomes, decisions, and next

How to Write Better Meeting Recaps using AI [with Templates] In this article, we'll learn how to compose and send an effective meeting recap email to your attendees. Alright, let's get started. Meeting recap is often an email that

5 great meeting recap email templates to copy & paste After a productive meeting, a recap email is your best tool to keep the momentum going. It ensures everyone is on the same page about what was discussed and what comes

Meeting Recap: Templates, Examples, and AI Tips - Sembly AI Discover how to write an effective meeting recap. Explore 8 templates, study 2 examples, and learn how to use AI to optimize your workflows

How to Write a Meeting Recap: Template, Examples & How to What Is a Meeting Recap? A meeting recap is a post-meeting summary that captures the key takeaways, decisions made, action items, and any open questions or next steps. Unlike raw

How to Write a Meeting Recap (With Our Template or AI) Have you ever attended a meeting filled with great ideas and plans, only to forget the details days later? In situations like this, a meeting recap comes in handy. In this article,

How to write a meeting recap - guide and templates Whether you're grappling with overwhelming meeting notes or seeking to enhance team collaboration and accountability, this guide offers practical solutions for the upcoming

VPMAX-Vanguard PRIMECAP Fund Admiral Shares | Vanguard Vanguard PRIMECAP Fund Admiral Shares (VPMAX) - Find objective, share price, performance, expense ratio, holding, and risk details

VPMAX - Vanguard PRIMECAP Adm Fund Stock Price | Morningstar MUTF: VPMAX - Vanguard PRIMECAP Adm VPMAX stock price, growth, performance, sustainability and more to help you make the best investments

VPMAX | Vanguard PRIMECAP Fund;Admiral Overview | MarketWatch 3 days ago VPMAX | A complete Vanguard PRIMECAP Fund;Admiral mutual fund overview by MarketWatch. View mutual fund news, mutual fund market and mutual fund interest rates

Vanguard PRIMECAP Adm (VPMAX) - Yahoo Finance Canada Find the latest Vanguard PRIMECAP Adm (VPMAX) stock quote, history, news and other vital information to help you with your stock trading and investing

VPMAX - See the Zacks Mutual Fund Rank for Vanguard PRIMECAP VPMAX: Vanguard PRIMECAP Fund Admiral Shares - Fund Profile. Get the latest Fund Profile for Vanguard PRIMECAP Fund Admiral Shares from Zacks Investment

VPMAX | Vanguard PRIMECAP Fund;Admiral Stock Price and News View the latest Vanguard PRIMECAP Fund;Admiral (VPMAX) stock price, news, historical charts, analyst ratings and financial information from WSJ

VPMAX Mutual Fund Stock Price & Overview 6 days ago Get the latest Vanguard PRIMECAP Adm (VPMAX) stock price with performance, holdings, dividends, charts and more

Vanguard PRIMECAP Fund Admiral (VPMAX) - YCharts 3 days ago Explore real-time NAV and historical performance data for Vanguard PRIMECAP Fund Admiral. Compare fund returns, risk metrics, and holdings using YCharts a

Vanguard PRIMECAP Fund Admiral Shares (VPMAX) ETF Holdings Analyze ETF composition, sector exposure, and asset allocation for informed investment decisions

VPMAX - Vanguard PRIMECAP Fund Admiral Shares Vanguard PRIMECAP Fund seeks long-term capital appreciation, using a fundamental approach to invest in growth-oriented companies at attractive valuation levels. The fund has flexibility to

Our 42 Best Ground Beef Casseroles - Taste of Home No one goes hungry when you bake up our favorite hamburger casserole recipes. From stuffed shells to shepherd's pie, these dishes are supremely satisfying

24 Easy Ground Beef Casserole Recipes the Whole Family Will Love If you're looking for something easy, these ground beef casserole recipes are for you! Everyone in the family will love these hearty comfort food classics

16 Best Ground Beef Casserole Recipes These ground beef casserole recipes offer quick-and-easy comfort food that everyone in your family will love. From hamburger casserole recipes to easy

Mexican

21 Ground Beef Casserole Recipes Just Like Grandma Used To These ground beef casserole recipes are sure to satisfy hungry guests at the dinner table or a potluck gathering. They're hearty, feed a crowd, and are classics for a reason

30 Best Ground Beef Casserole Recipes - Insanely Good Dinner just got easier with these ground beef casserole recipes. From taco to hamburger to Frito pie, you'll flip for these tasty casseroles

21 Quick and Easy Ground Beef Casseroles for Busy Weeknights Ground beef casseroles are the perfect solution for busy weeknights when you need a hearty meal without spending hours in the kitchen. These 21 quick and easy recipes

14 Best Ground Beef Casserole Recipes | She's Not Cookin' Nothing says comfort like a ground beef casserole! These easy casserole recipes are perfect for busy weeknights, family dinners, or meal prep for the week. Loaded with

16 Easy, Delicious Ground Beef Casserole Recipes That Feed a One of the best ingredients for casseroles is ground beef, and we have 16 recipes that showcase that. These ground beef casserole recipes are hearty, delicious, and easy, with

Manoj Kumar Bezzanki - Senior QA | Capgemini | LinkedIn Senior QA | Capgemini Experience: Capgemini Location: India 110 connections on LinkedIn. View Manoj Kumar Bezzanki's profile on LinkedIn, a professional community of 1

7 "Bezzanki" profiles | LinkedIn View the profiles of professionals named "Bezzanki" on LinkedIn. There are 7 professionals named "Bezzanki", who use LinkedIn to exchange information, ideas, and opportunities

Manoj Kumar - QA Automation Engineer @Capgemini - LinkedIn I'm a passionate QA Automation Engineer with over 3 years of experience in designing and executing scalable test automation frameworks using Selenium WebDriver and Java. My

Manoj Kumar - Capgemini | LinkedIn View Manoj Kumar's profile on LinkedIn, a professional community of 1 billion members

Manoj Kumar - Senior Test consultant @ RBC - LinkedIn Working as senior consultant in financial services Group of Capgemini with approximately 9 years of combined experience serving Payment, Trading and wealth management domain in financial

Manoj Kumar - Senior software consultant at Capgemini - LinkedIn Proficient in creating complex packages with SSIS. Experience: Capgemini Education: Visvesvaraya Technological University Location: Gurgaon 75 connections on LinkedIn. View

Manoj Kumar - Senior Manager - Capgemini | LinkedIn Senior Manager at Capgemini Risk management professional with over 15 years of experience in development and validating credit risk models (IFRS9, CCAR-DFAST), Market risk models

Manoj Kumar Reddy Donthireddy - Consultant at Capgemini - LinkedIn Previously, as a Senior Software Engineer at Capgemini, I collaborated with cross-functional teams to enhance Guidewire applications, ensuring seamless policy servicing and customer

Manoj Kumar M - Senior Consultant at Capgemini | LinkedIn View Manoj Kumar M's profile on LinkedIn, a professional community of 1 billion members

Manoj Kumar Y. - Senior Consultant - Capgemini | LinkedIn Over 2 years of rich experience as a Quality Analyst in Healthcare domain. Over 8 years of experienced in API Testing professional skilled in ensuring the functionality, reliability, and

Rule 34 - If it exists there is porn of it. Rule 34 - If it exists, there is porn of it. We have pokemon, my little pony, Other hentai, whatever you want. Serving 9,380,366 posts

Rule 34 Rule 34 - If it exists, there is porn of it. We have pokemon, my little pony, Other hentai, whatever you want

Rule 34 Tags List Url for API access: <https://api.rule34.xxx/index.php?page=dapi&s=tag&q=index> id The tag's id in the database. This is useful to grab a specific tag if you already know this value. limit

Wiki Listing - Rule 34 Rule 34 - If it exists, there is porn of it. We have pokemon, my little pony, Other hentai, whatever you want

Rule 34 - angry bondage bound female heterochromia looking at Rule 34 - If it exists, there is porn of it. We have pokemon, my little pony, Other hentai, whatever you want

Rule 34 / big_ass Rule 34 - If it exists, there is porn of it. We have pokemon, my little pony, Other hentai, whatever you want

Rule 34 / naruto Rule 34 - If it exists, there is porn of it. We have pokemon, my little pony, Other hentai, whatever you want

Rule 34 / dandy's_world Rule 34 - If it exists, there is porn of it. We have pokemon, my little pony, Other hentai, whatever you want

Rule 34 / blackwhiplash Rule 34 - If it exists, there is porn of it. We have pokemon, my little pony, Other hentai, whatever you want

Rule 34 / femboy Rule 34 - If it exists, there is porn of it. We have pokemon, my little pony, Other hentai, whatever you want

Katy Perry - Wikipedia Katheryn Elizabeth Hudson (born October 25, 1984), known professionally as Katy Perry, is an American singer, songwriter, and television personality. She is one of the best-selling music

Katy Perry | Official Site The official Katy Perry website.12/07/2025 Abu Dhabi Grand Prix Abu Dhabi BUY

Katy Perry | Songs, Husband, Space, Age, & Facts | Britannica Katy Perry is an American pop singer who gained fame for a string of anthemic and often sexually suggestive hit songs, as well as for a playfully cartoonish sense of style. Her

KatyPerryVEVO - YouTube Katy Perry on Vevo - Official Music Videos, Live Performances, Interviews and more

KATY PERRY (@katyperry) • Instagram photos and videos 203M Followers, 842 Following, 2,684 Posts - KATY PERRY (@katyperry) on Instagram: "📺 ON THE LIFETIMES TOUR 📺"

Katy Perry Says She's 'Continuing to Move Forward' in Letter to Katy Perry is reflecting on her past year. In a letter to her fans posted to Instagram on Monday, Sept. 22, Perry, 40, got personal while marking the anniversary of her 2024 album

Katy Perry Tells Fans She's 'Continuing to Move Forward' Katy Perry is marking the one-year anniversary of her album 143. The singer, 40, took to Instagram on Monday, September 22, to share several behind-the-scenes photos and

Katy Perry Shares How She's 'Proud' of Herself After Public and Katy Perry reflected on a turbulent year since releasing '143,' sharing how she's "proud" of her growth after career backlash, her split from Orlando Bloom, and her new low-key

Katy Perry on Rollercoaster Year After Orlando Bloom Break Up Katy Perry marked the anniversary of her album 143 by celebrating how the milestone has inspired her to let go, months after ending her engagement to Orlando Bloom

Katy Perry Says She's Done 'Forcing' Things in '143 - Billboard Katy Perry said that she's done "forcing" things in her career in a lengthy '143' anniversary post on Instagram

Related to protraction and retraction anatomy

The Brookbush Institute Enhances Anatomy Education with an Update to 'Joints of the Shoulder Girdle and Scapular Motion' (WDAF-TV12mon) The scapula has its own set of joint actions: The shoulder girdle has a set of joint actions specific to motion of the scapula. Although this may seem like just another set of confusing terms to

The Brookbush Institute Enhances Anatomy Education with an Update to 'Joints of the Shoulder Girdle and Scapular Motion' (WDAF-TV12mon) The scapula has its own set of joint actions: The shoulder girdle has a set of joint actions specific to motion of the scapula. Although this may seem like just another set of confusing terms to

XRHealth Receives Patent to Measure Neck and Shoulder Protraction and Retraction Motions with AR/VR Technology that Are Often Needed for Rehabilitation (Business

Insider4y) BOSTON, July 28, 2021 /PRNewswire/ -- XRHealth, the leader in extended reality and therapeutic applications, announces today that they received a patent to measure neck and shoulder protraction and

XRHealth Receives Patent to Measure Neck and Shoulder Protraction and Retraction Motions with AR/VR Technology that Are Often Needed for Rehabilitation (Business

Insider4y) BOSTON, July 28, 2021 /PRNewswire/ -- XRHealth, the leader in extended reality and therapeutic applications, announces today that they received a patent to measure neck and shoulder protraction and

Master these shoulder blade flexibility techniques for better shoulder strength and overall workout effectiveness (Mint2mon) Take something as simple as a push-up. Most people attempting one will focus on the position of the hips, the distance between the arms, how the fingers are planted, and the flaring of the elbow as

Master these shoulder blade flexibility techniques for better shoulder strength and overall workout effectiveness (Mint2mon) Take something as simple as a push-up. Most people attempting one will focus on the position of the hips, the distance between the arms, how the fingers are planted, and the flaring of the elbow as

Evaluation of isokinetic force production and associated muscle activity in the scapular rotators during a protraction-retraction movement in overhead athletes with impingement (BMJ16d) Objectives: To determine if the muscle force and electromyographic activity in the scapular rotators of overhead athletes with impingement symptoms showed differences between the injured and

Evaluation of isokinetic force production and associated muscle activity in the scapular rotators during a protraction-retraction movement in overhead athletes with impingement (BMJ16d) Objectives: To determine if the muscle force and electromyographic activity in the scapular rotators of overhead athletes with impingement symptoms showed differences between the injured and

Back to Home: <http://www.speargroupllc.com>