the plexus method

Pyramid Principles

ELASTICITY

Definition: Tissue elasticity refers to the ability of a muscle, tendon, ligament etc. to return to its original shape after an external force has been removed. Our body is very intricate and this ability of our tissues is essential for the evolution of physical activity.

Rebound is a quality that is achieved when muscles, joints and other tissues work together in synchronicity to make movement multidimensional, acceleration and deceleration are important qualities but require mastering the previous levels.

FLOATING TONE TENSILITY TRACTILITY FORMATIVITY EXPANDABILITY ABSORPTION ASSIMILATION

In Yoga philosophy: Vishuddha (Sanskrit: विशुद्ध Viśuddha), or throat chakra is the fifth primary chakra according to the Hindu tradition of tantra. The element of the Vishuddha Chakra is Akasha or space. The space opens up the possibility of an expansion of perspective. It symbolizes the energy of seeking and telling the truth. Vishuddha also governs our internal communication with our true Self. Its where the in meets the out.

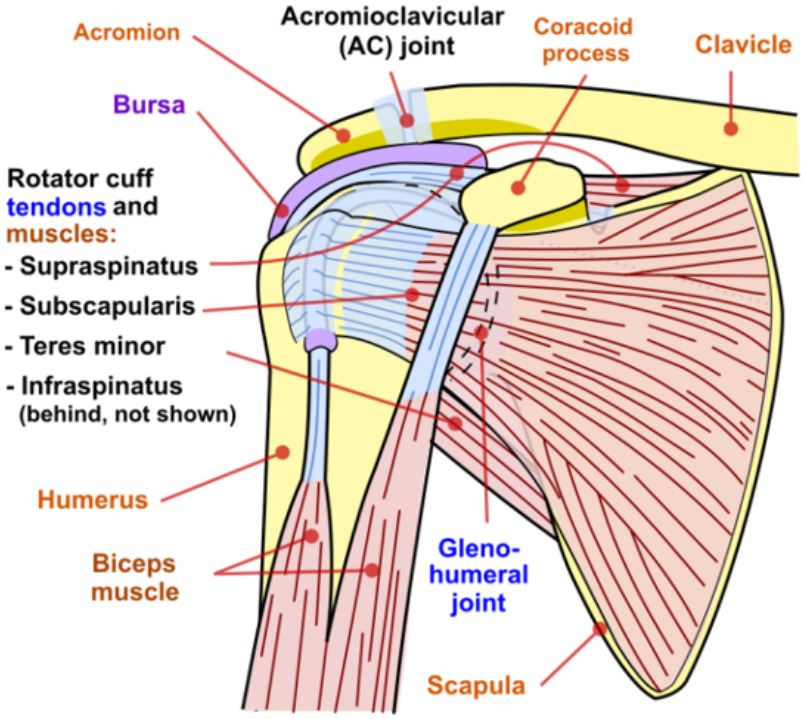
PLEXUS METHOD: THE SHOULDER

The shoulders are the joints where the bones of the arm (humerus), shoulder blades (scapula), and collarbone (clavicle) meet. The humerus fits into the rounded hollow of the shoulder blade on each side of the body. Each shoulder is held in place by a group of four muscles and tendons, called the rotator cuff, which covers and protects the humerus and allows you to lift and move your arm. Above we find the tendon of the supraspinatus muscle, anteriorly that of the subscapularis muscle and posteriorly the tendons of the infraspinatus and teres minor muscles.

Shoulder pain can have many causes - you may injure it in a fall or accident, or you may have overdone a job like painting. Sometimes shoulder pain results from a condition such as arthritis. It can also result from problems in other parts of the body, which are called referred pain.

Symptoms of a shoulder injury, ask yourself a few questions to help you decide if you have a shoulder injury: Can you move your arm normally or is your shoulder too stiff or sore? Do you feel like your shoulder could come out of the joint? Is your shoulder strong enough for the things you normally do?

You can treat some shoulder injuries at home for a few days with rest and ice. You can bandage it to hold it in place if needed and lift it above heart height. Some injuries require professional help. Here are the signs you need to see a doctor right away: Your shoulder joint looks deformed. You absolutely cannot use the shoulder. The pain is intense. The shoulder is swelling suddenly. Your arm or hand is weak or numb.



CAUSES OF SHOULDER PAIN AND RISK FACTORS COMMON SHOULDER INJURIES:

Dislocation: If your shoulder is pulled back with too much force or rotated too much, the upper arm may come out of its socket. You will feel pain and weakness in the shoulder, you may also have swelling, numbness and bruising.

Separation: This injury affects the joint where the collarbone and shoulder blade join. It is called the acromioclavicular (AC) joint. A fall or a violent blow tears the ligaments that hold it together. If your collarbone is pushed out of place, you will have a bump on your shoulder.

Fracture: A bone can crack or break if you fall or get hit hard. The most common fractures involve the collarbone (clavicle) and humerus (arm bone closest to the shoulder). You will be in a lot of pain and may cause bruising. If your collarbone is broken, your shoulder may drop and you may not be able to lift your arm.

Cartilage tear: You can injure the cartilage (the rubbery pad) that surrounds the edge of the shoulder joint. It can happen after repeating the same movement. You can also injure it in the event of a fall or whenever the shoulder absorbs a lot of force. With this type of injury, you may experience pain when you reach over your head and your shoulder may feel weak. It may also appear to be grabbing, blocking, or grinding.
Rotator cuff tear: The rotator cuff is the group of muscles (subscapularis, teres minor, supraspinatus, and infraspinatus) and tendons in the shoulder that hold the arm in place and allow you to lift the arm above your head. You can damage it from excessive use or if fallen on. It also begins to show signs of wear as we age. Your shoulder may ache at night and when you try to lift things. You may hear a crackle when you move it.

Frozen shoulder: (adhesive capsulitis) This condition limits how much the joint will move. Abnormal bands of tissue (adhesions) build up in the joint and prevent the shoulder from moving freely. Signs and symptoms typically begin gradually, worsen over time and then resolve, usually within one to three years.

Conflict: This happens when the rotator cuff tendons are pinched in the shoulder bones. It can cause swelling and pain. If you raise your arms a lot above your head, you can get it started.

Bursitis: The bursa (a fluid-filled sac that surrounds the joint) can swell and become irritated if you repeat the same movements over and over again. But it can also be caused by a fall or other injury. If you have bursitis, you may notice the pain more when you move your shoulder.

Other Causes of Shoulder Pain: Osteoarthritis. Also called degenerative joint disease, this is the most common form of arthritis. It can affect any joint, including the shoulders. The cartilage between the bones breaks down and bones rub together. This can cause pain and stiffness.

SHOULDER PAIN DIAGNOSIS

The doctor will start with a physical exam to check for any structural problems and rule out anything that could involve the spine or neck. They will then test your range of motion to see how strong and flexible your shoulder is. This will involve moving your arms in various ways, such as over your head, across your body, or behind you, and turning them 90 or 180 degrees.

Your doctor might also recommend one or more imaging tests to take a closer look:

X-rays. These can help your doctor find bone spurs, arthritis, and other bone-related causes of shoulder pain. Your doctor may also recommend an arthrogram, which involves an injection of dye to make the details clearer.

Magnetic resonance imaging (MRI). This uses radio waves and a powerful magnet to create detailed images of your shoulder.

Computed tomography (CT) is a series of X-rays taken from different angles. When put together, they can give your doctor a better view of what's going on with your shoulder.

Electromyography (EMG). This measures electrical activity in the muscles to see if there are any nerve problems.

Arthroscopy. This is a surgical procedure that allows a tiny fiber optic camera to show the doctor high definition images of the shoulder. In some cases, the doctor may also be able to treat the problem during the procedure.

SHOULDER PAIN TREATMENT AND HOME REMEDIES

For dislocations, separations, and fractures, you need the help of a doctor to get the shoulder back into place and then a sling to hold it in place as it heals. For many other problems, the doctor may suggest rest, heat or ice, and a medicine such as ibuprofen or aspirin to reduce pain and swelling. If your shoulder doesn't improve after these first steps, your doctor may try injecting a corticosteroid (an anti-inflammatory medicine) directly into the joint to relieve swelling and pain. Sometimes cartilage, rotator cuff, and frozen shoulder injuries don't improve with rest and medicine. Your doctor may recommend surgery. With any shoulder problem, your treatment plan will include exercises to help you stretch and strengthen the joint and to improve your mobility.

Shoulder pain prevention

Considering how often you use your shoulder every day, at work and in play, it is advisable to take steps to protect it: If you work at a desk, make sure your chair has adequate back support and encourages good posture. Take a break and move at least once every hour. If your job requires heavy lifting, use the correct technique: tackle what you are lifting, keep your back straight, and bend your knees to use your legs for power. When you reach for something heavy above your head, use a stool or ladder to get yourself in a better position.

PATIENT HISTORY

Listen carefully to the patient's past medical history, this could rule out the red flags and guide the shoulder examination.

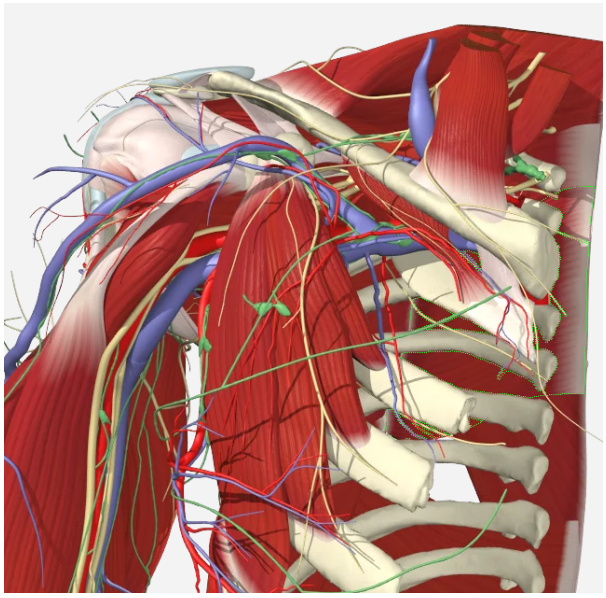
Pain distribution and severity: sleep disturbance, can the patient lie down on the affected side, degree of obstruction in daily life at home and at work?

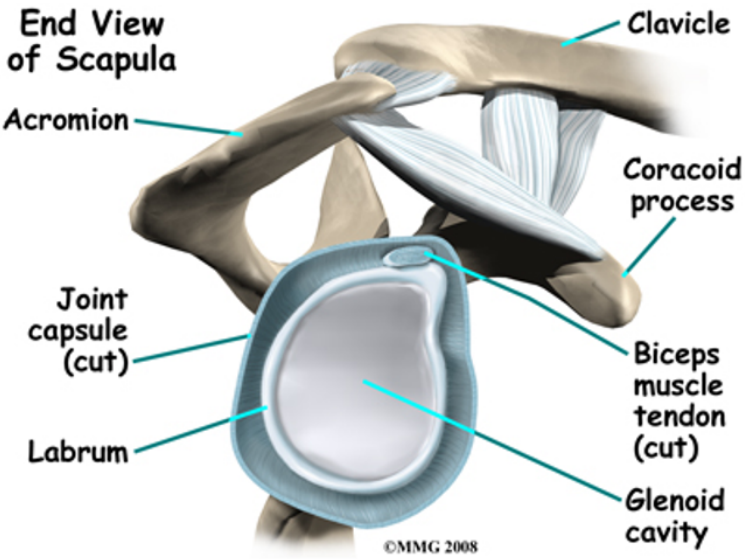
Selfcare and other treatments the patient has tried.

Shoulder Disorders in the Past: Course, Treatment, and Treatment Outcome

Relationship between complaints and workplace

Relationship between complaints and sporting activities





NEUROLOGICAL EVALUATION

A complete neurological examination may be warranted in patients presenting with a primary complaint of shoulder pain. The presence of neurological symptoms including numbness and tingling may warrant this examination.

Myotomes

C4 - Shoulder elevation / shrug
C5 - Shoulder Abduction
C6 - Elbow flexion, wrist extension
C7 - Elbow extension, wrist flexion
C8 - Abduction / extension of the thumb
T1 - Abduction of the fingers

Dermatomas

C4 - Upper part of the shoulders
C5 - Lateral deltoid
C6 - Tip of the thumb
C7 - Middle finger distal
C8 - 5th distal finger
T1 - medial forearm

Active movements of the shoulder complex

Active movements of the shoulder complex	ROM
Elevation through abduction	170°-180°
Elevation through forward flexion	160°-180°
Elevation through the plane of the scapula	170°-180°
Lateral (external) rotation	80°-90°
Medial (internal) rotation	60°-100°
Extension	50°-60°
Adduction	50°-75°
Horizontal adduction/abduction (cross-flexion/ cross-extension)	130°
Circumduction	200°
Scapular protraction	
Scapular retration	
Combined movements (if necessary)	
Repetitive movements (if necessary)	
Sustained positions (if necessary)	

SHOULDER PLEXUS METHOD

Stability: Being the most mobile joint in the human body, the shoulder is often unstable when injured and can lose rage of motion especially in flexion and external rotation. You must differentially diagnose the source of the problem. Many time[s, the tissues involved will be the long head of the bicep tendon and the supraspinatus tendon. You can gain stability in the shoulder by working with smaller ranges of motion and very light weight.

Strength: Building on the stability of the shoulder, to gain strength you add progressively larger ranges of motion and more time under tension but not necessarily more weight. The tricky part of getting a shoulder stronger is to not have it be helped by surrounding muscles with the pectoralis or the latissimus dorsi. Focus on the rear deltoid as this is weak with most people and will aid with external rotation which most people lack.

Endurance: Adding time under tension, more repetitions more overall volume are all good techniques but err on the side of caution. The shoulder experiences fatigue in a different way than other joints often signaling concentric failure fairly quickly as a self-protection mechanism to avoid injury. Better one step forward than 2 steps forward and one step back when rehabilitating the shoulder.

Flexibility: Do active range of motion exercises with light bands, take the patient to the edge of pain but don't cross the pain barrier. That means if they can only flex their shoulder up to shoulder height but above that they have pain, stay under the pain barrier and keep doing isometric holds until the pain barrier starts to move and you gain ROM.

Elasticity: This is often age related, younger people have problems being too loose, older people are generally too stiff. Teach the body that is in front of you. If you have an elderly person and they can only do 30 degrees of shoulder extension, be respectful of that limit. This limitation often is not because of muscle tightness but because of some kind of built-up adhesions that will not allow for greater ROM.

SHOULDER PLEXUS METHOD CONT.

Agility: The agility of the shoulder as you'll have seen in previous guidelines with other joints come with repetition. Freedom of movement is a movement that is not contemplated but just done. This about shooting a basketball it's all about feeling, if the move is too mechanical, the player will have a poor shooting percentage. To gain agility, do a move so often that it becomes natural and fluid.

Balance: Again, the simple answer here is anything you can do on one arm. Side planks, single arm planks, etc. will get the body used to one arm bearing the weight. The safest is with the arm directly under the shoulder as in a normal one arm plank, as the shoulder moves in to elevation or abduction, balance is not only harder but more dangerous, so be careful!

SELECTION OF EXERCISES CERVICAL, SHOULDER, ELBOW

STRETCHING

- active range of motion flexion
- extended child's pose
- side neck stretch
- clasped hands back stretch
- doorway stretch
- extended puppy
- thread the needle pose
- mountain pose
- plow pose
- behind the head tricep stretch cow face pose
- chin retraction
- cross arm stretch
- wide-legged standing forward bend
- chest expansion
- behind the back handcuffs
- t-spine windmill stretch

MOBILITY

- active range of motion rotation
- wall w drags
- shoulder roll
- arm circles
- windmill big arm circles
- swinging crossed arms
- figure 8 neck (advanced)
- shrugs
- scapular retraction / protraction
- eagle arms
- prayer hands behind back
- downward facing dog
- one arm gravity arm circles
- cow face pose
- wrist turn with weight
- towel twist

STRENGTH

- active range of motion
- isometric weighted holds
- planks, all kinds
- pushups, all kinds
- military press
- one arm isometrics
- banded external rotation
- face pulls
- bicep curls: hammer, one arm, corkscrew, isometric
- tricep extension
- hanging
- pullups
- rows, inverted
- lat pull over, down
- scare crows
- eccentric lateral and front raises
- shrugs
- rear deltoid fly
- front raise steering wheels

STRETCHING

ACTIVE RANGE OF MOTION

SIDE NECK STRETCH

DOORWAY STRETCH

EXTENDED CHILD'S POSE

CLASPED HANDS BACK STRETCH

EXTENDED PUPPY

STRETCHING

THREAD THE NEEDLE POSE

MOUNTAIN POSE

PLOW POSE

BEHIND THE HEAD TRICEP STRETCH

COW FACE POSE

CHIN RETRACTION

CROSS ARM STRETCH

STRETCHING

WIDE-LEGGED STANDING FORWARD BEND

CHEST EXPANSION

BEHIND THE BACK HANDCUFFS

T-SPINE WINDMILL STRETCH

MOBILITY

ACTIVE RANGE OF MOTION ROTATION

WALL W DRAGS

SHOULDER ROLL

ARM CIRCLES

WINDMILL BIG ARM CIRCLES

SWINGING CROSSED ARMS

MOBILITY

FIGURE 8 NECK (ADVANCED)

SHRUGS

SCAPULAR RETRACTION / PROTRACTION

EAGLE ARMS

PRAYER HANDS BEHIND BACK

DOWNWARD FACING DOG

MOBILITY

ONE ARM GRAVITY ARM CIRCLES

COW FACE POSE

WRIST TURN WITH WEIGHT

TOWEL TWIST

STRENGTH

ACTIVE RANGE OF MOTION

ISOMETRIC WEIGHTED HOLDS

PLANKS, ALL KINDS

PUSHUPS, ALL KINDS

MILITARY PRESS

ONE ARM ISOMETRICS

STRENGTH

BANDED EXTERNAL ROTATION

FACE PULLS

BICEP CURLS: HAMMER, ONE ARM, CORKSCREW, ISOMETRIC

TRICEP EXTENSION

HANGING

PULLUPS

STRENGTH

ROWS, INVERTED

LAT PULL OVER, DOWN

SCARE CROWS

ECCENTRIC LATERAL AND FRONT RAISES

SHRUGS

REAR DELTOID FLY

STRENGTH

FRONT RAISE STEERING WHEELS