

# Clinical Orthopedic Testing Review

## **SIMMONDS TEST:**

- Patient is prone
- Doctor flexes the patients knee to 90 degrees
- Doctor squeezes the patient's calf.
- Classical response: Failure of ankle plantarflexion
- Classical Importance= torn Achilles tendon
- Test is done bilaterally

## **ACHILLES TAP:**

- Patient is prone
- Doctor flexes the patient's knee to 90 degree
- Doctor dorsiflexes the ankle and then strikes the Achilles tendon with a percussion hammer
- Classical response: Plantar response
- Classical Importance= Intact Achilles tendon
- Test is done bilaterally

## **FOOT DRAWER TEST:**

- Patient is supine with their ankles off the edge of the examination table
- Doctor grasps the heel of the ankle being tested with one hand and the tibia just above the ankle with the other.
- Doctor applies and anterior to posterior and then a posterior to anterior shear force.
- Classical response: Anterior or posterior translation of the ankle
- Classical Importance= Anterior talofibular or posterior talofibular ligament laxity.
- Test is done bilaterally

## **LATERAL STABILITY TEST:**

- Patient is supine
- Doctor grasps the tibia with one hand and the foot with the other.
- Doctor rotates the foot into inversion
- Classical response: Excessive inversion
- Classical Importance= Anterior talofibular ligament sprain
- Test is done bilaterally

## **MEDIAL STABILITY TEST:**

- Patient is supine
- Doctor grasps the tibia with one hand and the foot with the other
- Doctor rotates the foot into eversion
- Classical response: Excessive eversion
- Classical Importance= Deltoid ligament sprain
- Test is done bilaterally

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## **KLEIGER'S TEST:**

- Patient is seated with the legs and feet dangling off the edge of the examination table.
- Doctor grasps the patient's foot while stabilizing the tibia with the other hand
- Doctor pulls the ankle laterally.
- Classical response: Pain or extra joint play on the medial side of the ankle
- Classical Importance= Deltoid ligament sprain
- Test is done bilaterally

## **TEST FOR RIDGID OF SUPPLE FLATFEET:**

- Patient is standing with one foot in front of the other
- Doctor observes the patient's feet to see if they are flat.
- Doctor asks the patient to rise up on the ball of the forward foot.
- Doctor observes if the arch returns or not
- Classical response: Arch dose not return
- Classical Importance= Rigid flat foot
- Test is done bilaterally

## **SOTO-HALL TEST**

- Patient is supine
- Doctor asks patient to place their own hand onto their sternum
- Doctor places one of their hands on top of patient's "sternal hand" and stabilizes the sternum onto the table.
- Doctor takes free hand and places it under the patient's occiput and flexes their chin onto their chest.
- Classical response: Pain along the spinous processes down to the level of T7
- Classical Importance = Tractioning of the posterior Supraspinous structures
- Test is done midline

## **JACKSON'S COMPRESSION TEST**

- Patient is seated
- Doctor stands behind the patient
- Doctor laterally flexes the patient's head towards one side
- Doctor places their hands on top of the patient's head and axially compresses along the plane of the cervical articular pillars
- Classical response: Increase in radicular pain on side of lateral flexion
- Classical Importance = IVF encroachment
- Test is done bilaterally

## **MAXIMUM FORAMINAL COMPRESSION TEST**

- Patient is seated
- Doctor instructs the patient to first laterally flexes their head
- Doctor instructs the patient to bring their chin towards the side of lateral flexion
- Doctor instructs the patient to extend their head
- Classical response: Increase in radicular pain on the side of lateral bend
- Classical Importance = IVF encroachment
- Test is done bilaterally

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## **FORAMINAL COMPRESSION TEST**

- Patient is seated
- Doctor stands behind the patient
- Patient's head is in the neutral position
- Doctor places their hands upon the top of the patient's head and axially compresses along the plane of the cervical articular pillars
- Classical response: Increase in radicular pain
- Classical Importance = Discal disease
- Test is done midline

## **DISTRACTION TEST**

- Patient is seated
- Doctor places hand either under the occiput/chin or places thumbs on occiput and cups around the ears but not over the ears.
- Doctor axially distracts upwards
- Classical response: Relief of radicular pain
- Classical Importance = Removal of discal pressure
- Test is done midline

## **BAKODY SIGN**

- Patient is seated
- Doctor grasps wrist and raises patient's arm slowly over patient's head
- Doctor places hand on patient's head
- Doctor asks patient to repeat the above and to perform it actively
- Classical response: Relief of pain in the arm
- Classical Importance = Reduction of nerve root tractioning
- Test is done bilaterally

## **SHOULDER DEPRESSION TEST**

- Patient is seated
- Doctor stands behind the patient
- Doctor laterally flexes patient's head towards one side
- Doctor forcibly depresses contra lateral shoulder
- Classical response: Increase in radicular pain
- Classical Importance = Adhesions of the dural sleeve are exaggerated
- Test is done bilaterally

## **VALSALVA MANEUVER**

- Patient is seated
- Patient is instructed to place their thumb into their mouth
- Patient is instructed to take a deep breath hold it
- Patient is instructed to puff out their cheeks
- Patient is instructed to try to blow their thumb out of their mouth
- Classical response: Increase in radicular pain
- Classical Importance = Discal disease due to increased intrathecal pressure
- This is a midline test

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## **DEJERINES SIGN:**

- Patient is seated
- Doctor instructs the patient to cough, sneeze and then bear down.
- Classical response: Increase in radicular symptomology
- Classical Importance= Increase in intrathecal pressure aggravates a discal lesion
- Test is done midline

## **KEMP'S TEST:**

- Patient is seated with their arms folded
- Doctor stands behind the patient
- Doctor obliquely bends the patient backwards first to one side and then the other.
- Classical response: Increase in radicular pain upon bending
- Classical Importance= Increase in pain when bending away from the pain means medial disc lesion. Increase in pain when bending towards the pain means a lateral disc lesion
- Test is done bilaterally

## **TINEL'S (ELBOW)**

- Patient is seated
- Doctor supports the elbow with one hand and palpates the cubital tunnel with the same hand
- Doctor strikes the cubital tunnel with a percussion hammer
- Classical response: Increase in tingling distal to the site of the tapping
- Classical Importance = Ulnar nerve neuritis
- This is a bilateral test.

## **COZENS TEST**

- Patient is seated with their elbow flexed at 90 degrees
- Doctor instructs the patient to pronate and then extend their wrist
- Doctor palpates Lateral Epicondyle
- Patient is instructed to maintain their wrist in extension as Doctor applies resistance
- Classical response: Pain in the Lateral Epicondyle
- Classical Importance = Lateral Epicondylitis
- This is a bilateral test.

## **MILL'S TEST**

- Patient is seated
- Doctor palpates the patient's lateral epicondyle
- Doctor instructs the patient to do the following in one fluid motion: Flex the elbow, flex the wrist, Pronate the wrist, Point index finger and then extend the elbow.
- Classical response: Pain in the Lateral Epicondyle
- Classical Importance = Lateral Epicondylitis
- This is a bilateral test.

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## **VALGUS STRESS TEST Elbow**

- Patient is seated with their elbow extended and the shoulder in approx 45 degrees flexion.
- Doctor stabilizes the upper arm while grasping the forearm
- Doctor pulls the distal extremity away from the midline of the patient's body
- Classical response: Increased motion on the medial side of the elbow
- Classical Importance = Medial collateral ligament laxity
- This is a bilateral test

## **VARUS STRESS TEST:.. Elbow**

- Patient is seated with their elbow extended and the shoulder in approx 45 degrees flexion.
- Doctor stabilizes the upper arm while grasping the forearm
- Doctor pulls the distal extremity towards the midline of the patient's body
- Classical response: Increased motion on the lateral side of the elbow
- Classical Importance = Lateral collateral ligament laxity
- This is a bilateral test

## **REVERSE COZEN'S TEST**

- Patient is seated with their elbow flexed at 90 degrees
- Doctor instructs the patient to supinate and then flex their wrist
- Doctor palpates medial epicondyle
- Patient is instructed to maintain their wrist in flexion as Doctor applies resistance
- Classical response: Pain in the Medial Epicondyle
- Classical Importance = Medial Epicondylitis
- This is a bilateral test.

## **BUNNELL-LITTLER TEST**

- Patient is seated
- Doctor takes the patient's wrist in a pronated fashion and extends the MCPJ and flexes the PIPJ
- Doctor takes the patient's wrist in a pronated fashion and flexes the MCPJ and then flexes the PIPJ
- Classical Response: A difference in tension in the PIPJ from the two tested positions
- Classical Importance: If the PIPJ is tight in only when the MCPJ is extended, you need to think about finger intrinsics being tight. If the PIPJ is tight with both the extended and flexed MCPJ, you need to think of capsular involvement
- Test is done bilaterally

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## **RETINACULAR TEST:**

- Patient is seated
- Doctor takes the patient's wrist in a pronated fashion and PIPJ in a neutral position and then flexes the DIPJ
- Doctor takes the patient's wrist in a pronated fashion and PIPJ in a flexed position and then flexes the DIPJ
- Classical Response: A difference in tension in the DIPJ from the two tested positions
- Classical Importance: If the DIPJ is tight in only when the PIPJ is neutral, you need to think about finger intrinsics being tight. If the DIPJ is tight with both the neutral and flexed PIPJ, you need to think of capsular involvement
- Test is done bilaterally

## **THOMAS TEST:**

- Patient is supine
- Doctor instructs the patient to pull one knee towards their chest and hold it with their hands.
- Classical response: Opposite knee flexion
- Classical Importance: Hip flexor contracture
- Test is done bilaterally

## **ELY'S SIGN:**

- Patient is prone
- Doctor flexes the patient's knee bringing the heel to the ipsilateral buttock
- Doctor does not stabilize the pelvis
- Classical response: Elevation of the pelvis on the side being tested
- Classical Importance=Rectus Femoris or TFL contracture
- Test is done bilaterally

## **TRENDELENBERG TEST:**

- Patient is standing
- Doctor instructs the patient to raise one knee towards their chest while balancing on the supporting limb.
- Classical response: Gluteal fold will drop below the level of the contralateral side
- Classical Importance= Gluteus Medius weakness on the side of which the patient stands.
- Test is done bilaterally

## **ANVIL TEST:**

- Patient is supine
- Doctor slightly raises one leg and strikes a blow to the heel with the ulnar side of a closed fist.
- Classical response: Increase in pain within the hip joint
- Classical Importance= Hip joint lesion
- Test is done bilaterally

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## **FABERE-PATRICK'S TEST**

- Patient is supine
- Doctor Flexes the patients knee , abducts, externally rotates and then extends the patient's hip (sign of 4)
- Doctor stresses the side further by pressing downward on the flexed knee.
- Classical response: Pain within the hip joint
- Classical Importance= Hip joint lesion
- Test is done bilaterally

## **BARLOW'S TEST:**

- Patient (baby) is supine with the knees bent to 90 degrees
- Doctor places their hands around each thigh so that their thumb lies along the patient's inner thighs and the index and middle fingers lie on the outer thigh.
- Doctor applies a pressure from posterior to anterior and then anterior to posterior
- Classical response: A palpable click
- Classical Importance= Infant hip dislocation
- Test is done bilaterally

## **TELESCOPING TEST:**

- Patient (baby) is supine with their knees and hip flexed to 90 degrees
- Doctor places their hand with the thumbs on the inner thigh and their index finger on the outer thigh.
- Doctor pulls the thighs upwards and then presses downward. Alternating between the right and left thigh.
- Classical response: Excessive joint play
- Classical importance= Congenital hip pathology
- Test is done bilaterally

## **BALLOTMENT TEST:**

- Patient is supine with their legs fully extended out on the table
- Doctor asks the patient is relax their quadriceps.
- Doctor forces the patella into the patella groove and then quickly release the pressure
- Classical response: Quick Patella rebound
- Classical Importance= Knee Joint effusion
- Test is done bilaterally

## **FLUCTUATION TEST:**

- Patient is supine with the knees locked in full extension
- Doctor places their palm over the suprapatella pouch and the other hand over the patella.
- Doctor alternates pressure downward between both hands.
- Classical response: Fluid will be felt moving away from the increased pressure
- Classical Importance= Knee joint effusion
- Test is done bilaterally

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## **APLEY'S DISTRACTION TEST:**

- Patient is prone
- Doctor flexes the patient's knee to 90 degrees
- Doctor places their knee onto the patient's thigh in order to stabilize it
- Doctor grasps the patient's calf near the ankle and distracts the tibia off of the femur
- Doctor repeats this with the addition of lateral and medial rotation
- Classical response: Pain in the knee upon distraction
- Classical Importance= Ligamentous injury (Medial rotation evaluates the lateral collateral ligament while Lateral rotation evaluates the medial collateral ligament)
- Test is done bilaterally

## **AP-PA DRAWER TEST:**

- Patient is supine
- Doctor bends the patient's knees to 90 degrees and keeps the patient's feet flat on the table.
- Doctor grasps the proximal tibia with both hands and pulls posterior to anterior then push anterior to posterior. Doctor supports the feet of the patient with their body so that they don't move when the proximal knee is either pulled or pushed.
- Classical response: AP or Posterior tibia translation
- Classical Importance= ACL or PCL damage
- Test is done bilaterally

## **VALGUS STRESS TEST: Knee**

- Patient is supine with the legs fully extended.
- Doctor places one hand on the patient's lateral knee and the other hand around the ankle.
- Doctor applies a lateral to medial force to the knee while pulling the ankle outward.
- Classical response: Pain on the medial side of the knee
- Classical Importance= Medial collateral ligament sprain
- Test is done bilaterally

## **VARUS STRESS TEST: Knee**

- Patient is supine with the legs fully extended
- Doctor places one hand on the patient's medial knee and the other hand around the ankle.
- Doctor applies a medial to lateral force to the knee while pushing the ankle inward
- Classical response: Pain on the lateral side of the knee
- Classical Importance= Lateral collateral ligament sprain
- Test is done bilaterally



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## **LACHMAN'S TEST:**

- Patient is supine with their knee flexed to 20-30 degrees.
- Doctor anchors the foot to the table and places their hands around the proximal tibia.
- Doctor pulls the tibia forward.
- Classical response: Anterior translation of the tibia
- Classical Importance= Anterior Cruciate Ligament laxity
- Test is done bilaterally

## **APLEY'S COMPRESSION TEST:**

- Patient is prone
- Doctor flexes the patient's knee to 90 degrees.
- Doctor places their knee onto the patient's thigh in order to stabilize it
- Doctor grasps the patient's calf near the ankle and compresses the tibia into the femur
- Doctor repeats this with the addition of lateral and medial rotation
- Classical response: Pain in the knee upon compression
- Classical Importance= Meniscal injury (Medial rotation evaluates the lateral meniscus while Lateral rotation evaluates the medial meniscus)
- Test is done bilaterally

## **McMURRAY'S TEST:**

- Patient is supine
- Doctor places one hand under the patient's heel and then flexes the knee to about 90 degrees along with some abduction
- Doctor applies a lateral to medial force (valgus stress) to the knee while extending and adducting it.
- Classical response: A palpable or audible click as the knee is brought into extension
- Classical Importance= Medial meniscus damage
- Test is done bilaterally

## **ACTUAL LEG LENGTH TEST:**

- Patient is supine
- Doctor marks the A.S.I.S.'s of the patient with a grease pencil
- Doctor marks the center of the medial malleoli with a grease pencil
- Doctor measures the distance from the A.S.I.S. to the medial malleolus on the ipsilateral side.
- Classical response: Difference in measurement from one side to the other
- Classical importance= Actual leg length deficiency
- Test is done bilaterally

## **ALLIS TEST:**

- Patient is supine
- Doctor bends the patient's knees and makes sure the feet are even and flat on the table.
- Doctor observes the height of the femoral condyles
- Doctor observes the height of the tibias
- Classical response: Difference in height of knees
- Classical Importance= Shortening of the tibia or femur
- Test is done simultaneously

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### **ELY'S HEEL TO BUTTOCK TEST:**

- Patient is prone
- Doctor flexes the patient's knee and brings the heel onto the contralateral buttock.
- Doctor notes if the above can be done, if so then the doctor lifts the flexed knee off the table in order to extend the hip.
- Classical response: Increased nerve root pain
- Classical Importance= Torsional stress in the hip, or lumbar nerve root lesion, or psoas irritation
- Test is done bilaterally

### **MURPHY'S PUNCH TEST:**

- Patient is either seated or standing
- Doctor stands behind the patient on the opposite side being tested.
- Doctor delivers a short choppy blow to the patient's flank at the level of the 12<sup>th</sup> rib (posterior)
- Classical response: Increase in lancinating pain from the flank into the groin
- Classical Importance= Kidney inflammation
- Test is done bilaterally

### **FAJERSZTAJN'S TEST:**

- Patient is supine
- Doctor raises the unaffected leg to the point at which pain is created on the contralateral side.
- Doctor lowers the unaffected 5 degrees below the level of pain on the contralateral side and then dorsiflexes the ankle.
- Classical response: Increase in sciatic symptomology down the affected leg.
- Classical Importance= Irritation of sciatic nerve due to an inflamed disc by tractioning the nerve due to pelvic rotation
- Test is done unilaterally

### **LASEGUE'S STRAIGHT LEG RAISE (S.L.R.)**

- Patient is supine
- Doctor places one hand under the patient's ankle and the other hand on the patient's knee. (affected leg)
- Doctor raises the affected to 90 degree or to the point of symptoms.
- Classical response: Doctor notes the type of pain and the degrees of angulation
- Classical Importance= Increase in sciatic radiculopathy from 0-30 degrees means sacroiliac lesion, 30-60 means lumbosacral lesion, above 60 degrees means lumbar lesion.
- Test is done unilaterally

# Clinical Orthopedic Testing Review

## **Well LEG RAISE**

- Patient is supine
- Doctor places one hand under the patient's ankle and the other hand on the patient's knee. (unaffected leg)
- Doctor raises the affected to 90 degree or to the point of symptoms.
- Classical response: Doctor notes the type of pain and the degrees of angulation on the raised leg. Pain will be on the affected leg side
- Classical Importance= Increase in sciatic radiculopathy down the affected leg indicates a discal lesion
- Test is done unilaterally

## **LIBMANS TEST:**

- Patient is seated
- Doctor stands in front of the patient and places their thumbs on the patient's mastoid processes
- Doctor manually compresses his thumbs together
- Classical response: Slight increase in pressure noted. Patient may note a large increase in pressure and pain
- Classical Importance= Slight increase in pressure is normal. Exaggeration of pain and pressure means a malingerer.
- Test is done simultaneously

## **MANKOPF'S TEST:**

- Patient is seated.
- Doctor takes the patient's baseline radial pulse.
- Doctor asks the patient to point to the area of main complaint
- Doctor manually or electrically irritates the area of complaint while monitoring the patient's pulse rate
- Classical response: An increase of 5% or more above the baseline pulse.
- Classical Importance= Normal patient. If pulse doesn't increase suspect a malingerer
- Test is done on area of main complaint

## **PATELLA GRIND TEST:**

- Patient is supine with the knees fully extended
- Doctor forces the patella into the patella groove with strong pressure and then grinds it medially and then laterally
- Doctor should repeat this test with the knee flexed at 30 degrees
- Classical response: Increase in retro patella pain
- Classical Importance= Chondromalacia patella
- Test is done bilaterally

## **CLARK'S SIGN:**

- Patient is supine with their legs fully extended out on the table
- Doctor presses downward at the superior pole of the patella and holds it
- Doctor asks the patient to contract their quadriceps.
- Doctor repeats this test at 30, 60 and 90 degrees of knee flexion
- Classical response: Increase in retro patella pain
- Classical Importance= Chondromalacia Patella
- Test is done bilaterally

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## **PATELLA APPREHENSION TEST:**

- Patient is supine with their legs fully extended
- Doctor grasps the patella and manually displaces it laterally while observing the patient's face.
- Classical response: Visible facial sign of apprehension
- Classical Importance= Patella dislocation
- Test is done bilaterally

## **BRACELET TEST**

- Patient is seated with their wrist supinated
- Doctor grasps the patient's distal radial/ulnar joint and compresses it.
- Classical response: Pain in the forearm, wrist and hand
- Classical Importance = Rheumatoid arthritis
- Test is done bilaterally

## **ILIAC COMPRESSION TEST:**

- Patient side lying
- Doctor places both hands on the innominates and presses downward
- Classical response: Pain in the sacroiliac joint
- Classical Importance= Sacroiliac joint lesion
- This is a simultaneous test ( table actually pushes up as doctor pushes down)

## **LEWIN'S GAENSLEN'S TEST:**

- Patient is side lying with the unaffected side down.
- Doctor instructs the patient to grasp the knee of the unaffected side and pull it towards their chest.
- Doctor extends the affected hip while stabilizing the unaffected leg at the knee.
- Classical response: Pain in the Sacroiliac joint on the side being pulled off the table
- Classical Importance= Sacroiliac joint lesion
- Test is done bilaterally

## **HIBB'S TEST:**

- Patient is prone
- Doctor flexes one of the patient's knees to 90 degrees.
- Doctor externally rotates the same leg while stabilizing the contralateral pelvis
- Classical response: Increase pain in the sacroiliac joint
- Classical Importance= Sacroiliac joint lesion
- Test is done bilaterally

## **YEOMAN'S TEST:**

- Patient is prone
- Doctor stands on the opposite side of the sacroiliac joint being tested
- Doctor flexes the knee on the side being tested bringing the heel onto the ipsilateral buttock
- Doctor grasps the bent knee and extends the hip while pressing downward on the tested sacroiliac joint
- Classical response: Pain felt deep in the anterior sacroiliac joint
- Classical importance= Deep anterior sacroiliac strain/sprain
- Test is done bilaterally

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## **SACROILIAC STRETCH TEST:**

- Patient is supine
- Doctor crosses their hands and places their palms on the A.S.I.S.'s of the patient
- Doctor tries to separate his crossed hands. (This spreads the A.S.I.S.'s apart) and presses downward.
- Classical response: Pain felt deep in the anterior sacroiliac joint
- Classical Importance= Deep anterior sacroiliac strain/sprain
- Test is done simultaneously

## **BELT TEST:**

- Patient is standing
- Doctor stands behind the patient
- Doctor instructs the patient to bend forward from the waist and try and touch their toes.
- Doctor then grasps the patient's A.S.I.S.'s and places his hip into the patient's sacrum and asks the patient to once again bend forward from the waist and try and touch their toes.
- Classical response: Doctor observes the patient's response, ease of motion and compares the responses from the supported and non supported position.
- Classical Importance=Pain on both supported and non supported means lumbar involvement. No pain when supported means S.I. lesion
- Test is done midline

## **DOUBLE LEG RAISE:**

- Patient is supine
- Doctor performs a single straight leg raise on each side noting the degree at which symptoms are reproduced
- Doctor elevates both legs simultaneously to the point of symptoms and once again notes the degree of angle.
- Doctor compares the difference between degrees with one leg vs both legs being elevated.
- Classical response: Pain at lower lever when both legs are raised then single leg raise
- Classical Importance= Easier tractioning on the sciatic nerve due to combined movement of the pelvis.
- Test is done bilaterally and simultaneously

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## **GOLDTHWAIT'S TEST:**

- Patient is supine
- Doctor places one hand (two fingers) under the patient at the lumbosacral junction
- Doctor places their other hand under the heel of one ankle and raises the leg off of the table.
- Classical response: Doctor observes whether symptoms become apparent before or after the lumbosacral articulation moves.
- Classical Importance= Pain occurring before Lumbosacral motion means Sacroiliac involvement. Pain occurring while Lumbosacral articulation is moving means Lumbosacral involvement. Pain occurring after the lumbosacral joint moved and is no longer moving means lumbar involvement.
- Test is done bilaterally

## **NACHLAS TEST:**

- Patient is prone
- Doctor passively flexes the patient's knee bringing the heel to the ipsilateral buttock. All the while the doctor is pressing downward on the ipsilateral sacroiliac joint.
- Classical response: Increase in local lumbar, lumbosacral or sacroiliac joint.
- Classical Importance= Strain or sprain of the above structures
- Test is done bilaterally

## **BECHTEREW'S TEST:**

- Patient is seated
- Doctor instructs the patient to extend one knee, then the other, and then both at the same time.
- Classical response: Increase in sciatic radiculopathy
- Classical Importance= Discal disease causing sciatic radiculopathy
- Test is done bilaterally and simultaneously

## **BRAGGARD'S TEST:**

- Patient is supine
- Doctor can only do this test if there was a classically significant Straight Leg Raise.
- Doctor performs the S.L.R. to the point of the patient's classical signs.
- Doctor then lowers the patient's leg 5 degrees below the point of classical signs and then dorsiflexes the ankle.
- Classical response: Increase in sciatic radiculopathy
- Classical Importance= Stretching of the sciatic nerve is aggregative
- Test is done unilaterally

## **ADAMS POSITION:**

- Patient is standing or seated
- Doctor stands behind the patient and observes for evidence of scoliosis ( Rib Humping, High shoulders, Winging scapula. Etc.)
- Doctor instructs the patient to bend forward at the waist
- Doctor reexamines his observed findings looking for any changes
- Classical response: Reduction of scoliosis
- Classical Importance= Functional scoliosis
- Test is done midline

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## **SPEED'S TEST**

- Patient is seated
- Doctor instructs the patient to have their arm out in front of them (flexion of the shoulder will be about 45 degrees here) with the hand supinated.
- Doctor palpates the bicipital groove
- Doctor applies pressure to the patients wrist as the patient is instructed to flex their shoulder while maintaining their elbow in extension.
- Classical response: Tenderness in the bicipital tendon area
- Classical Importance = Biceps tendonitis
- Test is done bilaterally

## **YERGASON'S TEST**

- Patient is seated
- Doctor instructs the patient to flex their elbow to 90 degrees and keep their wrist pronated.
- Doctor palpates the bicipital groove with one hand and then assumes the handshake position with the other.
- Doctor instructs the patient to now flex their elbow completely and supinate their wrist/forearm while the doctor applies resistance and all the while palpating the bicipital groove
- Doctor then applies a little external rotation at the end of the patient's above motion once again palpating the bicipital groove
- Classical response: Pain in the bicipital groove or a palpable click in the same area.
- Classical Importance = Tenosynovitis of the biceps tendon or subluxation of the biceps tendon
- This is a bilateral test.

## **APPREHENSION TEST**

- Patient is seated
- Doctor is in front of the patient on the side being evaluated
- Doctor flexes the elbow to 90 degrees, abducts and externally rotates the shoulder while noting patients facial expression
- Classical response: Reactive guarding during the maneuver
- Classical Importance = Shoulder instability from prior dislocation
- Test is done bilaterally

## **DUGAS TEST**

- Patient is seated.
- Doctor instructs the patient to flex shoulder to 90 degrees and then reach across and touch the opposite shoulder.
- Doctor instructs the patient to bring elbow towards their chest while still holding onto the opposite shoulder.
- Classical response: Inability to perform the maneuver
- Classical Importance = Shoulder dislocation

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## **POSTERIOR APPREHENSION TEST**

- Patient is supine
- Doctor flexes the shoulder to 90 degrees
- Doctor then flexes elbow and adducts the shoulder
- Doctor places a palpating hand under the patients scapula and then applies a force in the following direction upon the flexed elbow (medial to lateral and anterior to posterior)
- Classical response: Reproduction of pain or resistance to this maneuver
- Classical Importance = Significant for history of prior posterior shoulder dislocation
- Test is done bilaterally
- Test is done bilaterally

## **APLEY'S SCRATCH TEST**

- Patient is standing
- Doctor instructs the patient to reach behind their head and touch the opposite superior border of the scapula
- Doctor instructs the patient to reach behind their back and touch the opposite inferior border of the scapula.
- Classical response: Inability to perform the above coupled motion
- Classical Importance = Shoulder (rotator cuff) pathology
- Test is done bilaterally

## **DAWBARN'S TEST**

- Patient is seated.
- Doctor stands behind the patient and palpates the patient's subacromial bursa noting patient's response to the pressure. If the doctor can't palpate the bursa well, slightly flexing and extending the shoulder while the elbow is flexed 90 degrees might be helpful.
- Doctor flexes patient's elbow to 90 degrees and then abducts the shoulder to 90 degrees..
- Classical response: Pain in the subacromial area that decreases with abduction of the shoulder
- Classical Importance = Subacromial bursitis
- Test is done bilaterally

## **SUBACROMIAL PUSH BUTTON SIGN**

- Patient is seated
- Doctor stands behind the patient and palpates the subacromial bursa
- Doctor flexes the patient's elbow to 90 degrees and then flexes and extends the shoulder while palpating the subacromial bursa
- Classical response: Patient's feeling of translocation of subacromial tenderness within the flexion/extension arc.
- Classical Importance = Subacromial bursitis
- Test is done bilaterally



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## **CODMAN'S DROP ARM TEST**

- Patient is standing
- Doctor passively abducts the patient's shoulder to about 150 degrees.
- Doctor then instructs the patient to take control of their arm and slowly bring it down back towards their side.
- Doctor observes the ease and fluidity of motion
- Doctor then repeats the above procedure but this time adds a little resistance to the patient bringing their arm back down to the side. Once again noting ease and fluidity of motion.
- Classical response: Inability to lower arm to the side smoothly
- Classical Importance = Supraspinatus pathology if between 120-90 degrees and then again from 20 -0 degrees. Deltoid pathology from 90 to 20 degrees.
- Test is done bilaterally

## **SUPRASPINATUS TEST**

- Patient is seated
- Doctor instructs the patient to abduct both shoulders to 90 degrees.
- Doctor then applies a downward pressure to the arms while the patient resists.
- Doctor then instructs the patient to angle the shoulders 30 degrees forward and to rotate their shoulders internally (thumbs should point downward)
- Doctor then applies a downward pressure to the arms while the patient resists.
- Classical response: Weakness when the arms are angled forward
- Classical Importance = Supraspinatus tendonitis
- This is a simultaneous test

## **SPINOUS PERCUSSION TEST (LUMBAR)**

- Patient is seated
- Doctor instructs the patient to flex their torso forward
- Doctor either stands behind patient or to their side
- Doctor palpates the lumbar spinous processes and marks them with a grease pencil
- Doctor uses a percussion hammer and gently percusses all marked spinous processes
- Doctor then percusses 1" laterally to the marked spinous processes in the area of the soft paraspinal tissue.
- Classical response: Increase in pain (localized) on a spinous process
- Classical Importance= Fracture of the spinous process
- Test is considered a midline test and a bilateral test when the paraspinal tissues are evaluated as well.

## **TUNING FORK TEST:**

- Patient is seated with their back exposed
- Doctor palpates all of the lumbar spinous processes and marks them with a grease pencil
- Doctor uses a 128cc tuning fork and sounds the fork and applies the base of the fork to each of the marked spinous processes.
- Classical response: Increase pain
- Classical Importance= Fractured spinous
- Test is done midline

# Clinical Orthopedic Testing Review

## **OBER'S TEST:**

- Patient is side lying on the side not being tested
- Doctor instructs the patient to flex their lower leg at the knee for stability.
- Doctor raises the upper leg and then releases it and lets it drop onto the other leg
- Classical response: Failure of the limb to fall back to the table or if it falls posteriorly
- Classical importance= TFL contracture
- Test is done bilaterally

## **NOBLE'S COMPRESSION TEST:**

- Patient is supine with knees flexed to 90 degrees and the hip slightly flexed
- Doctor applies pressure to the lateral femoral condyle while extending the knee to 30 degrees of flexion.
- Doctor asks the patient to actively extend their knee from 30 to 0 degrees
- Classical Response: Pain on palpation at the lateral femoral condyle while the knee is extended by the patient.
- Classical Importance: Ilio-Tibial band or TFL contracture

## **CHEST EXPANSION TEST**

- Patient is seated with their hands on the hips or folded at shoulder level parallel to the floor
- Doctor stands behind the patient and places a tape measure around the chest at the level of the nipple line or T4
- Doctor instructs the patient to forcibly exhale and then the doctor takes a measurement
- Doctor instructs the patient to forcibly inhale and then the doctor takes a measurement.
- Classical response: Greater than 1.5-2"
- Classical Importance = Normal if less than 1.5" think Ankylosing Spondylitis
- Test is done midline

## **LEWIN'S SUPINE**

- Patient is supine
- Doctor stabilizes the patient's ankles and instructs the patient to perform a sit up without using their arms.
- Classical response: Inability to perform maneuver
- Classical Importance = Ankylosing Spondylitis
- Test is done midline

# Clinical Orthopedic Testing Review

## **ADSON'S TEST**

- Patient is seated
- Doctor stands behind the patient
- Doctor takes patient's radial pulse while abducting the arm and slightly extending it
- Doctor notes the amplitude of the pulse
- Doctor instructs the patient to rotate their head towards the arm being tested
- Doctor instructs the patient to take a deep inhalation and hold it for at least 10 seconds
- Doctor instructs the patient to extend their head.
- Classical response: Dampening of radial pulse amplitude
- Classical Importance = Anterior Scalene T.O.S.
- Test is done bilaterally

## **ELEVATED ARM STRESS TEST (E.A.S.T.)**

- Patient is standing
- Doctor instructs the patient to abduct both shoulders to 90 degrees with their palms facing downward
- Doctor instructs the patient to open and close their fists for approximately 2 minutes
- Classical response: Pain, paresthesia or pallor in the affected limb
- Classical Importance = Anterior Scalene TOS
- Test is done simultaneously

## **ALLEN'S TEST**

- Patient is seated
- Doctor instructs the patient to abduct their arm to about 160 degrees.
- Doctor instructs the patient to pump their fist a few times and then hold it clenched
- Doctor then places their thumbs upon the radial and ulnar arteries compression them
- Doctor then brings the abducted arms down in front of the patient and asks the patient to open their fist.
- Doctor then releases pressure on the radial artery and observes flow of blood into the hand.
- Doctor repeats the above procedures but this time will release the ulnar artery once again observing the flow of blood into the hand
- Classical response: Blood returns to palm within 10 sec
- Classical Importance = Normal if within 10 sec if not then potential for a thrombus
- Test is done bilaterally

## **EDEN'S TEST**

- Patient is standing
- Doctor is along side the patient and will palpate the patients radial artery noting amplitude
- Doctor instructs the patient to bring their shoulder backwards and then force them downwards all the while palpating the radial pulse for amplitude.
- Classical response: Dampening of the radial pulse amplitude
- Classical Importance = Costoclavicular TOS
- Test is done bilaterally

# Clinical Orthopedic Testing Review

## **COSTOCLAVICULAR TEST**

- Patient is seated
- Doctor stands behind the patient and palpates simultaneous radial pulses noting amplitude
- Doctor instructs the patient to drop their chin to their chest and force their shoulders backwards and then downwards. Doctor is continually noting any changes in the amplitude of the radial pulse
- Doctor while palpating the radial pulses simultaneously will once again ask the patient to drop their chin to their chest.
- Doctor will now force the patient's shoulders backwards and downward while noting any changes in amplitude of the radial pulse
- Doctor will then abduct the patients shoulders to 90 degrees and then externally rotate the shoulders to about 90+ degrees again noting amplitude in the radial pulses
- Classical response: Dampening in radial pulse amplitude
- Classical Importance = Costoclavicular compression TOS
- This test is done simultaneously

## **WRIGHT'S HYPERABDUCTION TEST**

- Patient is seated
- Doctor palpates the radial pulse noting the amplitude
- Doctor extends the arm and then abducts the arm to 120 degree while noting the amplitude
- Classical response: Dampening of the radial pulse amplitude
- Classical Importance = Pectoralis minor compression TOS
- Test is done either bilaterally or simultaneously (prefer simultaneously)

## **PECTORALIS STRETCH TEST**

- Patient is supine.
- Doctor instructs the patient to clasp their hands behind their head
- Doctor instructs the patient to bring their elbows towards one another while the doctor places his/her hand between the approximating elbows
- Doctor then instructs the patient to let their elbows relax and let them fall back onto the table.
- Doctor observes if both elbows drop evenly
- Classical response: Elbow on affected side fails to drop completely to the table
- Classical Importance = Pectoralis minor contracture TOS
- This is a simultaneous test

## **PHALEN'S TEST**

- The patient is seated
- Doctor instructs the patient to place the hands back to back while elevated above the sternum.
- Doctor instructs the patient to maintain this position for approx. 1 minute
- Classical response: Tingling into digits 1-3 volar surface
- Classical Importance = Median nerve entrapment (Carpal Tunnel Syndrome)
- Test is done simultaneously

## Clinical Orthopedic Testing Review

### **TINEL'S TEST (WRIST)**

- Patient is seated with their hand supinated
- Doctor supports the hand with one hand and palpates the carpal tunnel
- Doctor strikes the carpal tunnel with a percussion hammer
- Classical response: Tingling distal to the tapping
- Classical Importance = Median nerve lesion (Carpal Tunnel Syndrome)
- This is a bilateral test.