

GDCFHGA987-B9-B>I FM5GG9GGA9BH

Curriculum Content Frameworks

Please note: All assessment questions will be taken from the knowledge portion of these frameworks.

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Curriculum Content Frameworks

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Grade Levels: 10-12
Course Code: 494070

Prerequisite: Sports Medicine I and II

Course Description: This course provides students with a more specific look at sports medicine from the perspective of injury evaluation that includes advanced injury assessment, and understand of common injuries that affect the physically active population. Students will gain a more complete understanding injury evaluation and the role it plays in the career field of Sports Medicine. It is recommended that Human Anatomy and Physiology, Sports Medicine I and Sports Medicine II be completed prior to enrolling in this course.

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Unit 1: Evaluation

Hours: 8

Terminology: Assessment, Atrophy, Diffuse, Effusion, Evaluation, Goniometry, Gross deformity, HIPS, Instability, Manual muscle testing, Overuse syndrome, Pain assessment, SOAP, Special tests, Stages of injury, Swelling

CAREER and TECHNICAL SKILLS			
What the Student Should Know		What the Student Should be Able to Demonstrate	
Knowledge		Application	
1.1	Define terminology	1.1.1	Prepare a list of terms with definitions
1.2	Explain the process of evaluating injuries using the HIPS method	1.2.1	Use the HIPS method to evaluate a given joint
1.3	Explain the process of documenting the progression of injuries using the SOAP method	1.3.1	Write a SOAP note for an injury scenario
		1.3.2	Explain the role SOAP notes can play in instances of litigation

Unit 2: The Foot

Hours: 8

Terminology: Arches of the foot, Bunion, Claw toes, Corns, Gout, Hallux valgus, Hammer toes, Ingrown toenail, Jones fracture, Mid-foot, Morton's neuroma, Morton's test, Morton's toes, Navicular drop test, Pes cavus, Pes planus, Plantar fasciitis, Rear foot, Squeeze test, Subungual hematoma, Sulcus, Tinea pedis, Turf toe, Verruca vulgaris

CAREER and TECHNICAL SKILLS			
What the Student Should Know		What the Student Should be Able to Demonstrate	
Knowledge		Application	
2.1	Define terminology	2.1.1	Prepare a list of terms with definitions
2.2	Identify major anatomical and functional aspects of the foot	2.2.1	Demonstrate the motions of a given joint in the foot
2.3	Assess injuries of the ankle and lower leg	2.3.1	Palpate major bony and soft tissue structures of the foot
		2.3.2	Demonstrate the injury evaluation process for the foot
		2.3.3	Identify the anatomical structures that special tests of the foot evaluate
		2.3.4	Design a rehabilitation management plan for specific injuries of the foot
		2.3.5	Identify general medical considerations concerning the foot

Unit 3: The Ankle and Lower Leg

Hours: 8

Terminology: Ankle mortis, Anterior drawer test, Closed-packed, Compartment syndrome, Compression test, Deep vein thrombophlebitis, Heterotopic ossification, Interosseous membrane, Kleiger's test, Open-packed, Percussion test, Syndesmosis, Talar tilt test, Thompson test

CAREER and TECHNICAL SKILLS	
What the Student Should Know	What the Student Should be Able to Demonstrate
Knowledge	Application
3.1 Define terminology	3.1.1 Prepare a list of terms with definitions
3.2 Identify major anatomical components of the ankle and lower leg	3.2.1 Palpate major bony and soft tissue structures of the ankle and lower leg
3.3 Assess injuries of the ankle and lower leg	3.3.1 Demonstrate the injury evaluation process for the foot
	3.3.2 Identify the anatomical structures that special tests of the ankle and lower leg evaluate
	3.3.3 Design rehabilitation management plans for specific injuries of the ankle and lower leg
	3.3.4 Identify general medical considerations concerning the ankle and lower leg

Unit 4: The Knee

Hours: 10

Terminology: Anterior cruciate ligament (ACL), Anterior drawer, Apley Compression test, Genu recurvatum, Genu valgum, Genu varum, Gerdy's tubercle, Iliotibial band, Lachman's test, Lateral collateral ligament (LCL), Medial collateral ligament (MCL), Meniscus, Posterior cruciate ligament (PCL), Posterior drawer, Q angle, Valgus stress test, Varus stress test

CAREER and TECHNICAL SKILLS			
What the Student Should Know		What the Student Should be Able to Demonstrate	
Knowledge		Application	
4.1	Define terminology	4.1.1	Prepare a list of terms with definitions
4.2	Identify major anatomical components of the knee	4.2.1	Palpate major bony and soft tissue structures of the knee
4.3	Assess injuries of the knee	4.3.1	Demonstrate the injury evaluation process for the knee
		4.3.2	Identify the anatomical structures that special tests of the knee evaluate
		4.3.3	Design rehabilitation management plans for specific injuries of the knee
		4.3.4	Identify general medical considerations concerning the knee

Unit 5: The Hip and Thigh

Hours: 10

Terminology: Hamstring syndrome, Hip pointer, Hip scouring test, Iliopsoas bursitis, Ischial bursitis, Piriformis syndrome, Snapping hip syndrome, Thomas test, Trendelenburg's test, Trochanteric bursitis

CAREER and TECHNICAL SKILLS	
What the Student Should Know	What the Student Should be Able to Demonstrate
Knowledge	Application
5.1 Define terminology	5.1.1 Prepare a list of terms with definitions
5.2 Identify major anatomical components of the hip and thigh	5.2.1 Palpate major bony and soft tissue structures of the hip and thigh
5.3 Assess injuries of the hip and thigh	5.3.1 Demonstrate the injury evaluation process for the hip and thigh 5.3.2 Identify the anatomical structures that special tests of the hip and thigh evaluate 5.3.3 Design rehabilitation management plans for specific injuries of the hip and thigh 5.3.4 Identify general medical considerations concerning the hip and thigh

Unit 6: The Shoulder

Hours: 10

Terminology: Apprehension test, Bankart lesion, Brachial plexus, Drop arm test, Empty can test, Glenohumeral, Hill-Sachs lesion, Piano key sign, Relocation test, Rotator cuff, Scapular dyskinesis, Scapular winging, SLAP lesion, Speed's test, Step deformity, Sulcus sign, Thoracic outlet syndrome

CAREER and TECHNICAL SKILLS			
What the Student Should Know		What the Student Should be Able to Demonstrate	
Knowledge		Application	
6.1	Define terminology	6.1.1	Prepare a list of terms with definitions
6.2	Identify major anatomical components of the shoulder	6.2.1	Palpate major bony and soft tissue structures of the shoulder
6.3	Assess injuries of the shoulder	6.3.1	Demonstrate the injury evaluation process for the shoulder
		6.3.2	Identify the anatomical structures that special tests of the shoulder evaluate
		6.3.3	Design rehabilitation management plans for specific injuries of the shoulder
		6.3.4	Identify general medical considerations concerning the shoulder

Unit 7: The Elbow and Forearm

Hours: 8

Terminology: Cubital fossa syndrome, Forearm compartment syndrome, Golfer's elbow, Little leaguer's elbow, Osteochondritis dessicans, Tennis elbow, Tinel's sign, Valgus stress test, Varus stress test

CAREER and TECHNICAL SKILLS			
What the Student Should be Able to Do			
Knowledge		Application	
7.1	Define terminology	7.1.1	Prepare a list of terms with definitions
7.2	Identify major anatomical components of the elbow and forearm	7.2.1	Palpate major bony and soft tissue structures of the elbow and forearm
7.3	Assess injuries of the elbow and forearm	7.3.1	Demonstrate the injury evaluation process for the elbow and forearm
		7.3.2	Identify the anatomical structures that special tests of the elbow and forearm evaluate
		7.3.3	Design rehabilitation management plans for specific injuries of the elbow and forearm
		7.3.4	Identify general medical considerations concerning the elbow and forearm

Unit 8: Wrist, Hand, and Fingers

Hours: 8

Terminology: Ape hand, Bishop's deformity, Boutonniere deformity, Claw hand, Dupuytern's contracture, Finklestein's test, Ganglion cyst, Glide test (wrist), Jersey finger, Mallet finger, Nerve distribution, Onychia, Paronychia, Phalen's test, Swan-neck deformity, Volkmann's ischemic contracture

What the Student Should Know		What the Student Should be Able to Demonstrate	
Knowledge		Application	
8.1	Define terminology	8.1.1	Prepare a list of terms with definitions
8.2	Identify major anatomical components of the wrist, hand, and fingers	8.2.1	Palpate major bony and soft tissue structures of the wrist, hand, and fingers
8.3	Assess injuries of the wrist, hand, and fingers	8.3.1	Demonstrate the injury evaluation process for the wrist, hand, and fingers
		8.3.2	Identify the anatomical structures that special tests of the wrist, hand, and fingers
		8.3.3	Design rehabilitation management plans for specific injuries of the wrist, hand, and fingers
		8.3.4	Identify general medical considerations concerning the wrist, hand, and fingers

Unit 9: The Spine

Hours: 12

Terminology: Babinski test, Brachial plexus traction test, Cervical compression test, Cervical distraction test, Kypothic, Lordotic, Oppenheim test, Sacroiliac dysfunction, Sciatica, Scoliosis, Slump test, Spondylopathies, Spring test, Straight leg raise test, Upper/lower quarter motor screen, Valsalva test, Vertebral artery test

CAREER and TECHNICAL SKILLS	
What the Student Should Know	What the Student Should be Able to Demonstrate
Knowledge	Application
9.1 Define terminology	9.1.1 Prepare a list of terms with definitions
9.2 Identify major anatomical components of the spine	9.2.1 Palpate major bony and soft tissue structures of the spine
9.3 Assess injuries of the spine	9.3.1 Demonstrate the injury evaluation process for the spine
	9.3.2 Identify the anatomical structures that special tests of the spine evaluate
	9.3.3 Design rehabilitation management plans for specific injuries of the spine
	9.3.4 Identify general medical considerations concerning the spine

Unit 10: Head, Face, Ear, Nose, and Throat

Hours: 14

Terminology: Amnesia, Cerebral contusion, Chondral separation, Concussion, Conjunctivitis, Dental abnormality, Deviated septum, Epidural hematoma, Epistaxis, Hyphema, Impacted cerumen, Mandibular dislocation, Otitis externa, Otitis media, Post concussion syndrome, Pupillary response, Retinal detachment, Romberg test, Second impact syndrome, Subdural hematoma, Visual acuity

CAREER and TECHNICAL SKILLS			
What the Student Should Know		What the Student Should be Able to Demonstrate	
Knowledge		Application	
10.1	Define terminology	10.1.1	Prepare a list of terms with definitions
10.2	Identify major anatomical components of the head, face, ear, nose, and throat	10.2.1	Palpate major bony and soft tissue structures of the head, face, ear, nose, and throat
10.3	Assess injuries of the head, face, ear, nose, and throat	10.3.1	Demonstrate the injury evaluation process for the head, face, ear, nose, and throat
		10.3.2	Identify the problems or disorders that special tests of the brain identify
		10.3.3	Design rehabilitation management plans for specific injuries of the head, face, ear, nose, and throat
		10.3.4	Identify general medical considerations concerning the head, face, ear, nose, and throat

Unit 11: The Thorax and Abdomen

Hours: 8

Terminology: Appendicitis, Auscultation, Dyspepsia, Flail chest, Gastrointestinal dysfunctions, Heart contusion, Hemothorax, Hernia, Hyperventilation, Kidney stones, Mononucleosis, Pancreatitis, Percussion, Pneumohemothorax, Pneumothorax, Rebound tenderness, Solar plexus, Traumatic asphyxia, Urethritis

CAREER and TECHNICAL SKILLS	
What the Student Should Know	What the Student Should be Able to Demonstrate
Knowledge	Application
11.1 Define terminology	11.1.1 Prepare a list of terms with definitions
11.2 Identify major anatomical components of the thorax and abdomen	11.2.1 Palpate major bony and soft tissue structures of the thorax and abdomen
11.3 Assess injuries of the thorax and abdomen	11.3.1 Demonstrate the injury evaluation process for the thorax and abdomen
	11.3.2 Identify the anatomical structures that special tests of the thorax and abdomen evaluate
	11.3.3 Design rehabilitation management plans for specific injuries of the thorax and abdomen
	11.3.4 Identify general medical considerations concerning the thorax and abdomen

Unit 12: The Skin

Hours: 8

Terminology: Blisters, Carcinoma, Cellulitis, Chilblains, Contact dermatitis, Hyperkeratosis, Impetigo, Melanoma, Methicillin-Resistant Staphylococcus Aureus (MRSA), Microbial infections, Primary skin lesions, Secondary skin lesions, Tetanus, Xerotic skin

CAREER and TECHNICAL SKILLS			
What the Student Should Know		What the Student Should be Able to Demonstrate	
Knowledge		Application	
12.1	Define terminology	12.1.1	Prepare a list of terms with definitions
12.2	Understand the structure and function of the skin	12.2.1	Detail the occurrence of trauma to the skin
12.3	Identify major lesions resulting from skin abnormalities	12.3.1	Recognize infectious skin conditions resulting from bacteria and viruses
		12.3.2	Compare and contrast infestations and insect bites with viral and bacterial infections
12.4	Determine correct hygiene practices for the skin	12.4.1	Demonstrate proper hand washing techniques
12.5	Contrast allergic, chemical, and thermal skin reactions	12.5.1	Differentiate between the appearances and causes of these reactions

Unit 13: Common General Medical Conditions

Hours: 8

Terminology: Anorexia nervosa, Asthma, Bulimia, Diabetes, Diabetic coma, Meningitis, Obesity, Seizure

CAREER and TECHNICAL SKILLS	
What the Student Should Know	What the Student Should be Able to Demonstrate
Knowledge	Application
13.1 Define terminology	13.1.1 Prepare a list of terms with definitions
13.2 Describe the signs and symptoms of respiratory distress	13.2.1 Explain the difference between bronchial Asthma and exercise induced asthma
	13.2.2 Establish protocols for management of asthma and other respiratory conditions
13.3 Discuss the etiology, signs and symptoms, and possible causes of diabetes mellitus	13.3.1 Determine management procedures for diabetes mellitus related to sports
	13.3.2 Contrast diabetic coma and diabetic shock
13.4 Discuss eating disorders	13.4.1 List the signs of bulimia and anorexia nervosa
	13.4.2 Explain intervention procedures for bulimia and anorexia
13.5 Discuss childhood and adult obesity	13.5.1 Determine the health risk associated with excessive obesity
	13.5.2 Describe possible methods to decrease obesity
13.6 Discuss meningitis	13.6.1 Differentiate between the types of meningitis and their symptoms
13.7 Discuss blood disorders	13.7.1 Describe the complications that can arise with specific blood disorders and athletics
	13.7.2 Compare and contrast the management strategies for specific disorders
13.8 Discuss seizures	13.8.1 Explain the causes of seizures
	13.8.2 Describe the steps that must be taken to treat a patient having a seizure

Glossary

Unit 1: Evaluation

1. Atrophy – wasting away of tissue or of an organ
2. Assessment – determination
3. Diffuse – scattered; widespread
4. Effusion – the escape of fluid from the blood vessels or lymphatics into the tissues or a cavity
5. Evaluation – process or determination
6. Goniometry – the assessment of joint flexibility, using a large protractor to measure the extreme points in a joint's range of motion
7. Gross deformity – an abnormality that is visible to the unaided eye
8. HIPS – History, Inspection, Palpation, Special Tests
9. Instability – giving way or subluxation of a joint during functional activity that causes pain
10. Manual muscle testing – used to isolate individual muscles within their functional planes of motion
11. Overuse syndrome – injury caused by accumulated micro traumatic stress placed on a structure or body area
12. Pain assessment – ability to determine the type, quality, location and/or point tenderness of pain
13. SOAP – Subjective, Objective, Assessment, Planning
14. Special tests – manual manipulation that may assess the structural integrity of specific anatomical structures by placing controlled amounts of stress on those structures
15. Stages of injury – injuries can be classified in three stages determined by the length of time since the injury has occurred or developed, being acute, sub-acute, or chronic
16. Swelling – one of the cardinal signs of acute inflammation; caused by the exudation of fluid from the capillary vessels into the tissue

Unit 2: The Foot

1. Arches of the foot – medial longitudinal arch, lateral longitudinal arch, and transverse metatarsal arch
2. Bunion – an abnormal prominence on the inner aspect of the first metatarsal head, with bursal formation, and resulting in displacement of the great toe
3. Claw toes – a callus may be found over the dorsal portion of the PIP joint and on the plantar surface of the MTP joint and, in some cases, on the tips of the toes
4. Corns – a small, painful, raised bump on the outer skin layer
5. Gout – a form of arthritis marked by inflammation and pain in the distal joints
6. Hallux valgus – a deformity in which the great toe is angled away from the midline of the body toward the other toes. In some cases the great toe rides over or under the other toes
7. Hammer toes – often occur after injury. A callus may be located on the dorsal surface of the PIP joint, resulting from friction against the shoe
8. Ingrown toenail – this painful condition results from abnormal growth patterns of the nail, causing it to imbed within the skin
9. Jones fracture – a fracture of the fifth MT 1 mc distal to the proximal diaphysis
10. Mid-foot – composed of the navicular, three cuneiforms, and the cuboid bones. Helps with shock absorption
11. Morton's neuroma – a type of perineural fibrosis, which is not a true neuroma. Sharp, burning pain, commonly between the 3rd and 4th metatarsal heads, worsens with pressure
12. Morton's test – used to detect metatarsalgia or Morton's neuroma
13. Morton's toes – a form of foot neuralgia caused by a falling metatarsal arch, which puts pressure on the digital branches of the lateral plantar nerve
14. Navicular drop test – used to measure the function of the medial longitudinal arch
15. Pes cavus – claw foot
16. Pes planus – flat foot
17. Plantar fasciitis – inflammation of the fascia on the plantar surface of the foot, usually at the attachment to the heel, often making it painful to walk
18. Rear foot – formed by the calcaneus and talus, provides stability and shock absorption
19. Special tests – used in physical examination to determine specific pathologies
20. Subungual hematoma – hematoma beneath the nail. A subungual hematoma may form secondary to a fracture of the distal phalanx
21. Sulcus – a groove, trench, or furrow
22. Tinea pedis – fungal infection of the skin of the feet characterized by dry, scaly lesions

23. Turf toe – a ligamentous sprain of the metatarsophalangeal-MTP joint of the great toe

24. Verruca vulgaris – is generally a small, rough tumor, typically on hands and feet but often other locations, which can resemble a cauliflower or a solid blister

Unit 3: The Ankle and Lower Leg

1. Ankle mortise – the articulation formed by the distal articular surface of the tibia and its medial malleolus, the fibula's lateral malleolus, and the talus
2. Anterior drawer test – test used to detect rupture of the cruciate ligaments in the knee
3. Close-packed – the point in a joint's range of motion at which its bones are maximally congruent; the most stable position of a joint
4. Compartment syndrome – a symptom complex caused by ischemia, trauma-fractures, inflammation or infection of a closed anatomic space, resulting in compression of nerves, blood vessels, or tendons that traverse the space
5. Compression test – a test that involves pushing two or more anatomical structures together to see if it elicits pain
6. Deep vein thrombophlebitis – inflammation of a vein and the subsequent formation of blood clots
7. Heteropic ossification – misplaced and unwanted development of calcium
8. Interosseous membrane – a strong fibrous membrane that binds the tibia and fibula together
9. Kleiger's test – external rotation test for determination of rotatory damage to the deltoid ligament or the distal tibiofibular syndesmosis. The implication is based on the area of pain that is elicited
10. Open-packed – the joint position at which its bones are maximally incongruent
11. Percussion – method of medical diagnosis in which various areas of the body, especially the chest, back, and abdomen, are tapped with the finger or a plexor to determine by resonance the condition of internal organs
12. Syndesmosis joint – a relatively immobile joint in which two bones are bound together by ligaments
13. Talar tilt test – the talar tilt test is used to examine the integrity of the calcaneofibular or the deltoid ligament
14. Thompson test – is used to examine the integrity of the Achilles' tendon

Unit 4: The Knee

1. Anterior Cruciate Ligament (ACL) – a deep ligament of the knee that stabilizes the anterior translation of the tibia
2. Anterior drawer test – Involves placing the knee in 90 degrees of flexion and attempting to displace the tibia anteriorly. This test is sensitive to tears in the ACL's anteromedial bundle
3. Apley compression test – used to determine meniscal tears
4. Genu valgum – also called "knock knees," when the knees are touching, the ankles are separated
5. Genu verum – also called "bow-leggedness," is a deformity marked by medial angulation of the leg in relation to the thigh, an outward bowing of the legs, giving the appearance of a bow. Usually there is an outward curvature of both femur and tibia
6. Genu recurvatum – the backward curvature of the knee; hyperextension of the knee
7. Gerdy's tubercle – a tubercle on the lateral side of the upper end of the tibia giving attachment to the iliotibial tract and some fibers of the tibialis anterior muscle
8. Iliotibial band – the IT band travels down the lateral aspect of the femur to insert on Gerdy's tubercle on the anterolateral tibia and attaches to the lateral patellar retinaculum and the biceps femoris tendon through divergent slips
9. Lachman's test – tends to isolate the posterolateral bundle of the ACL because the knee is flexed to 20 degrees. This test is considered to be more reliable than the anterior drawer test for determining ACL damage
10. Lateral Collateral Ligament (LCL) – rounded, more narrow situated on the lateral aspect of the knee which resists forces that would push the knee laterally
11. Medial Collateral Ligament (MCL) – a broad, flat, membranous band, situated slightly posterior on the medial side of the knee joint which resists forces that would push the knee medially
12. Meniscus – cartilaginous structures that deepen the articulation and fill the gaps that normally occur during the knee's articulation, increasing load transmission over a greater percentage of the joint surfaces
13. Posterior Cruciate Ligament (PCL) – a deep ligament of the knee that stabilizes the posterior translation of the tibia
14. Posterior drawer – using the same positioning as the anterior drawer the posterior drawer test attempts to displace the tibia posteriorly
15. Q Angle – the angle of incidence of the quadriceps muscle relative to the patella. The Q angle determines the tracking of the patella through the trochlea of the femur. As the angle increases, the chance of patellar compression problems increases.
16. Valgus stress test – performed once with the knee fully extended and again when the knee is flexed to 25 degrees. Valgus laxity demonstrated on a fully extended knee indicates a major disruption of the medial supportive structures. Placing the knee in approximately 25 degrees flexion isolates the stress to the MCL
17. Varus stress test – Used to determine the integrity of the LCL, lateral joint capsule, IT band, cruciate ligaments, and lateral musculature when it is performed in complete extension. A positive varus stress test result when the knee is fully extended may indicate trauma to the other lateral or internal structures or both.

Unit 5: The Hip and Thigh

1. Hamstring syndrome – entrapment of the sciatic nerve by the hamstring muscles
2. Hip pointer – a contusion of the bone of the iliac crest, or avulsion of muscle attachments at the iliac crest
3. Hip scouring test – the patient is supine while the examiner applies pressure downward along the shaft of the femur to compress the joint surfaces. This test may also produce pain if there is a labral tear
4. Iliopsoas bursitis – inflammation of the iliopsoas bursa. May be associated with rheumatoid arthritis or osteoarthritis of the hip
5. Ischial bursitis – inflammation of the ischial bursa
6. Piriformis syndrome – impingement of the sciatic nerve from spasm of the piriformis muscle
7. Snapping hip syndrome – chronic inflammation of the trochanteric bursa is one the possible causes. There is an audible snap that occurs as the IT band passes over the greater trochanter
8. Thomas test – used to differentiate between tightness of the iliopsoas muscle group and tightness of the rectus femoris muscle
9. Trendelenburg's test – patients suffering from weakness of, or trauma, to the gluteus medius tilt the pelvis to the side opposite the insufficiency, displaying Trendelenburg's gait. Weakness of the gluteus medius muscle is demonstrated through this test
10. Trochanteric bursitis – inflammation of the trochanteric bursa, a part of the hip. This bursa is situated adjacent to the femur, between the insertion of the gluteus medius and gluteus minimus muscles into the greater trochanter of the femur and the femoral shaft

Unit 6: The Shoulder

1. Apprehension test – passive external rotation of the GH joint. A positive test will display apprehension that the shoulder may dislocate and resists further movement
2. Bankart lesion – the inferior GH ligament may be avulsed along with a portion of the labrum, forming this lesion
3. Brachial plexus – a network of nerves located in the neck and axilla, composed of the anterior branches of the lower four cervical and first two thoracic spinal nerves and supplying the chest, shoulder, and arm
4. Drop arm test – an arm that falls uncontrollably from 90 degrees of adduction indicates a positive test. If positive, the test shows a rotator cuff tear or poor eccentric control of the scapula
5. Empty can test – isolates the supraspinatus tendon for weakness or pain
6. Glenohumeral – formed by the head of the humerus and the scapula's glenoid fossa, the GH articulation is a ball-and-socket joint capable of 3 degrees of freedom of motion: flexion and extension, abduction and adduction, and internal and external rotation
7. Hill-Sachs lesion – a small defect in the posterior humeral head's articular cartilage caused by the impact of the humeral head on the glenoid fossa as the humerus attempts to relocate
8. Piano key sign – if a step deformity is observed, look for bobbing of the clavicle when downward pressure is applied. This test checks the integrity of the coracoclavicular ligaments
9. Relocation test – this should immediately follow an apprehension test by placing manual pressure on the anterior humeral head to keep the joint from dislocating while repeating the motion of the apprehension test. A positive test would be decreased pain or increased ROM or both
10. Rotator cuff – four muscles arising off the scapula form the rotator cuff muscles group; subscapularis muscles, supraspinatus, infraspinatus, and teres minor
11. Scapular dyskinesis – an improperly moving scapula
12. Scapular winging – where the vertebral border lifts away from the thorax
13. SLAP Lesion – Superior Labrum Anteroposterior Lesions are tears in the superior glenoid labrum located near the attachment of the long head of the biceps brachii tendon
14. Speed's test – resists flexion of the GH joint and elbow while palpating for tenderness of the bicipital groove. Only has a positive test result in the presence of bicipital tendinitis
15. Step deformity – condition where the clavicles riding above the acromion process, indicating an AC sprain
16. Sulcus sign – if the shoulder demonstrates laxity in the neutral position, it can be assumed to be lax in all positions. A positive sulcus sign with the humerus flexed to 90 degrees may indicate inferior instability
17. Thoracic outlet syndrome – compression of the brachial plexus and subclavian artery by attached muscles in the region of the first rib and the clavicle, characterized by pain in the arm, numbness in the fingers, and weakness in the hand muscles

Unit 7: The Elbow and Forearm

1. Cubital fossa syndrome – compression of the median nerve as it passes between the pronator teres and the brachioradialis on the anterior aspect of the elbow
2. Forearm compartment syndrome – in the early stages, forearm compartment syndrome is marked by complaints of pressure in the forearm, sensory disruption in the hand and fingers, decreased muscular strength, and pain during passive elongation of the involved muscles
3. Golfer's elbow – an injury characterized by pain and tenderness of medial humeral epicondyle at origin of flexor tendons
4. Little leaguer's elbow – in young baseball pitchers, the tension build-up in the medial epicondyle may result in avulsion of the common tendon from its attachment site
5. Osteochondritis dissecans – joint condition whereby a variable amount of bone and its adjacent cartilage loses its blood supply
6. Tennis elbow – inflammation of the lateral epicondyle irritates the common attachment of the wrist extensor group. Lateral epicondylitis is prevalent in racquet sports
7. Tinel's sign – a tingling sensation in the distal end of a limb when percussion is made over the site of a divided nerve. It indicates a partial lesion or the beginning regeneration of the nerve
8. Valgus stress test – a valgus force is applied to the joint. A positive test would be increased laxity compared with the other side, or pain
9. Varus stress test – a varus force is applied to the elbow. Increased laxity compared with the opposite side, and/or pain is produced

Unit 8: Wrist, Hand, and Fingers

1. Ape hand – inhibition of the median nerve results in atrophy of the muscles within the thenar eminence. The extensor muscles draw the thumb parallel with the fingers and the patient's ability to flex or oppose the thumb is lost
2. Bishop's deformity – the finger assumes a posture of flexion in the PIP and DIP joints that is more pronounced in the 4th and 5th fingers
3. Boutonniere deformity – a rupture of the central extensor tendon causes it to slip palmarly on each side of the PIP joint, changing its line of pull on this joint from that of an extensor to one of a flexor
4. Claw hand – hand positioning characterized by hyperextension of the metacarpophalangeal joints and flexion of the middle and distal phalanges resulting from trauma to the median and ulnar nerves
5. Dupuytern's contracture – flexion contracture of the MCP and PIP joints is caused by a shortening or adhesion of the palmar fascia
6. Finklestein's test – the patient tucks thumb under the fingers, and then ulnarly deviates the wrist; a positive test will result in increased pain in the area of the radial styloid process
7. Glide test (wrist) – a shear force is applied to the wrist by sliding the distal segment in a radial and ulnar direction and then in a volar and dorsal direction. A positive test will result in pain or significant change in glide compared to the other side
8. Ganglion cyst – a swelling that often appears on or around joints and tendons in the hand or foot
9. Jersey finger – an avulsion of the flexor digitorum profundus tendon off the palmar aspect of the DIP joint
10. Mallet finger – occurs when an avulsion or stretching of an extensor tendon results in the inability to fully extend the distal phalanx
11. Nerve distribution – branching of peripheral nerves and the anatomical structures that they innervate
12. Paronychia – inflammation of the tissue surrounding a nail
13. Phalen's test – for carpal tunnel syndrome; apply overpressuring during passive wrist flexion and holds the position for 1 minute. A positive test will have tingling in the distribution of the median nerve distal to the carpal tunnel
14. Onychia – inflammation of the nail bed, resulting in loss of the nail
15. Swan-neck deformity – characterized by flexion of the MCP and DIP joints and hyperextension of the PIP joint
16. Volkmann's ischemic contracture – a decrease in the blood supply to the forearm muscles can result in a flexion contracture of the wrist and fingers

Unit 9: The Spine

1. Babinski test – a device is run up the plantar aspect of the foot, making an arc from the calcaneus medially to the ball of the great toe. A positive test would be that the great toe extends and the other toes splay
2. Brachial plexus traction test – One hand placed on the side of the patients head; the other hand on the acromioclavicular joint. The cervical spine is bent and the opposite should compress. A positive test result would be pain radiating throughout the upper arm
3. Cervical compression test – press down on the crown of the patient's head. A positive test result would be pain in the upper cervical spine, upper extremities or both
4. Cervical distraction test – apply traction on the patient's head, causing distraction of the cervical spine. A positive test result would be that the patient's symptoms are relieved or reduced
5. Kyphotic – also called hunchback, is a common condition of a curvature of the upper spine
6. Lordotic – to describe an inward curvature of a portion of the vertebral column
7. Oppenheim test – the fingernail is run along the crest of the anteromedial tibia. A positive test result would be that the great toe extends and the other toes splay or the patients reports hypersensitivity to the test
8. Sacroiliac dysfunction – a slight amount of accessory movement of the ilium on the sacrum occurs. When these motions become extreme, the ilium rotates to the point that it subluxates on the sacrum. Injury to or degeneration of the pubic symphysis can lead to SI dysfunction
9. Sciatica – a general term for any inflammation involving the sciatic-nerve, does not describe the actual condition that is insulting the nerve and causing the inflammation
10. Scoliosis – lateral curvature of the spinal column
11. Slump test – the patient is slumped over, and the patient flexes the cervical spine, the knee is actively extended, the ankle is actively dorsiflexed. A positive test result would be pain in the sciatic nerve
12. Spondyopathies – bony disorders of the spinal column
13. Spring test – push against the spinous process anteriorly, feeling for the springing of the vertebrae. A positive test is where the vertebrae does not move or pain is elicited
14. Straight leg raise test – while keeping the knee in extension, the examiner raises the leg by flexing the hip until discomfort or the full ROM is obtained. A positive test would be if the patient complained of pain before full ROM
15. Upper/lower quarter motor screen – provides an efficient evaluation for neurologic function in the extremities. The screens use manual muscle testing, sensory testing, and deep tendon reflexes to assess neurologic function
16. Valsalva test – the patient takes and holds a deep breath while bearing down similar to performing a bowel movement. A positive test is increased spinal or radicular pain
17. Vertebral artery test – passively extends and laterally flexes the cervical spine, the head is then rotated toward the laterally flexed side and held. A positive test result would be dizziness, confusion, pupil changes

Unit 10: Head, Face, Ear, Nose, and Throat

1. Amnesia – loss of memory
2. Cerebral contusion – a form of traumatic brain injury, is a bruise of the brain tissue. Like bruises in other tissues, cerebral contusion can be caused by multiple micro hemorrhages, small blood vessel leaks into brain tissue
3. Chondral separation – separation of a cartilaginous body from a bone's surface
4. Concussion – a clinical syndrome of traumatic brain injury is characterized by immediate but transient posttraumatic impairment of brain function
5. Conjunctivitis – inflammation of the conjunctiva. Can be bacterial or viral
6. Dental abnormalities – tooth and gum disorders occurring from injury or illness that or grossly observable; gingivitis, periodontitis, tooth dislocation, fracture, etc.
7. Deviated septum – an abnormal location of the nasal partition resulting in one nasal passageway being occluded
8. Epidural hematoma – arterial bleeding between the dura mater and the skull results in the rapid formation of an epidural hematoma
9. Hyphema – the collection of blood within the anterior chamber of the eye, caused by the rupture of a blood vessel supplying the iris
10. Impacted cerumen – accumulated cerumen forming a solid mass that adheres to the wall of the external auditory canal
11. Mandibular dislocation – observable displacement of the mandible
12. Otitis externa – an infection of the external auditory meatus, causes intense, chronic pain and itching
13. Otitis media – inflammation of the ears mucous membranes, blocking the eustachian tubes and increasing the pressure within the inner ear
14. Post concussion syndrome – characterized by decreased attention span, trouble concentrating, impaired memory, and irritability
15. Pupillary response – a reaction to light, dilation
16. Retinal detachment – a separation between the choroid and the retina
17. Romberg test – a balance test to indicate transient posttraumatic impairment of brain function with positive results showing gross unsteadiness
18. Second impact syndrome – a result of a second concussion's occurring while the individual is still symptomatic from an earlier concussion
19. Subdural hematoma – venous bleeding between the dura mater and brain
20. Visual acuity – sharpness of vision, especially as tested with a Snellen chart. Normal visual acuity based on the Snellen chart is 20/20

Unit 11: The Thorax and Abdomen

1. Appendicitis – inflammation of the appendix
2. Auscultation – the act of listening for sounds made by internal organs, such as the heart and lungs, to aid in the diagnosis of certain disorders
3. Dyspepsia – painful, difficult, or disturbed digestion, which may be accompanied by symptoms such as nausea and vomiting, heartburn, bloating, and stomach discomfort
4. Flail chest – occurs when four or more ribs are fractured in two places, causing the segment of the chest wall between the fracture sites to collapse instead of expanding with inspiration
5. Gastrointestinal dysfunction – different disorders that disrupt normal digestion, including Irritable bowel syndrome, gastroenteritis, Crohn's disease, etc.
6. Heart contusion – also called cardiac contusions, a direct blow to the chest that within 24 hours can cause bleeding that leads to an irregular heartbeat
7. Hemothorax – occurs when blood fills the pleural cavity
8. Hernia – a bulge or protrusion of an organ through the structure or muscle that usually contains it
9. Hyperventilation – abnormally increased pulmonary ventilation, resulting in reduction of carbon dioxide tension, which, if prolonged, may lead to alkalosis
10. Kidney stones – a crystal mass formed in the kidney that is passed through the urinary tract
11. Mononucleosis – an infectious disease with symptoms that include severe fatigue, fever, sore throat, and swollen lymph nodes in the neck and armpits. Also called "mono"
12. Pancreatitis – inflammation of the pancreas
13. Percussion – the act of striking a part with short, sharp blows as an aid in diagnosing the condition of the underlying parts by the sound obtained
14. Pneumohemothorax – pleural cavity filled with air and blood
15. Pneumothorax – pleural cavity filled with air
16. Rebound tenderness – pressure applied over the injured site gradually stretches the peritoneum in a relatively pain free manner but then the area has increased pain with the pressure is quickly released
17. Solar plexus – the area just below the xiphoid process that when stimulated by a direct blow causes transitory paralysis of the diaphragm (wind knocked out)
18. Traumatic asphyxia – asphyxia produced by a sudden increase in venous pressure, common in those who have been hanged and occurring occasionally in crush injuries
19. Urethritis – inflammation of the urethra

Unit 12: The Skin

1. Blisters – a local swelling of the skin that contains watery fluid and is caused by burning, infection, or irritation
2. Carcinoma – a malignant new growth made up of epithelial cells tending to infiltrate surrounding tissues and to give rise to metastases
3. Cellulitis – a spreading bacterial infection just below the skin surface. It is most commonly caused by streptococcus pyogenes or staphylococcus aureus
4. Chilblains – erythema, itching, and burning, especially of the dorsa of the fingers and toes, and of the heels, nose, and ears, resulting from exposure to moist cold
5. Contact dermatitis – non-communicable skin disorder caused by the skin coming into contact with an irritant
6. Hyperkeratosis – an excessive formation of keratin
7. Impetigo – a streptococcal or staphylococcal skin infection marked by vesicles that become pustular, rupture, and form yellow crusts
8. Melanoma – a tumor arising from the melanocytic system of the skin and other organs
9. Methicillin Resistant Staphylococcus Aureus (MRSA) – a bacterial infection that is highly resistant to most antibiotics
10. Microbial infections – skin diseases can be caused by viruses, bacteria, fungi, or parasites, the most common being the bacterial skin pathogens staphylococcus aureus and group β -hemolytic streptococci
11. Primary lesions – a sore or wound that develops at the point of inoculation of the disease
12. Secondary lesions – secondary lesions may evolve from primary lesions, or may be caused by external forces such as scratching, trauma, infection, or the healing process. The distinction between a primary and secondary lesion is not always clear
13. Tetanus – an acute, often fatal disease that is characterized by spasmodic contraction of voluntary muscles, especially one occurring in the neck and jaw, and that is caused by the bacterium clostridium tetani, which usually enters the body through an infected wound and produces a neurotoxin. Also called lockjaw
14. Xerotic skin – dry skin

Unit 13: Common General Medical Conditions

1. Anorexia nervosa – suffer from a psychologically induced self-starvation in an attempt to reduce body weight
2. Asthma – chronic (long-lasting) inflammatory disease of the airways
3. Bulimia nervosa – characterized by episodes of binge eating followed by purging with the use of self-induced vomiting, laxatives, or diuretics
4. Diabetes – metabolic disorder that affects the body's production and use of insulin
5. Diabetic coma – a coma that develops in severe and inadequately treated cases of diabetes mellitus
6. Meningitis – an inflammation of the meninges of the brain and spinal cord. May be bacterial or viral
7. Obesity – a body weight that is 20 to 30 percent above the average weight based on age, gender, and height
8. Seizure – the physical findings or changes in behavior that occur after an episode of abnormal electrical activity in the brain ranging from very mild to severe