Diploma of Kinesiology HLT51507



Chemistry, Biochemistry, Pathology

CBP Manual

Part 3 of 5: Pathology 1

HLT07 National Health Training Package

Competencies covered in this workbook include

HLTAP501C Analyse Health Info: Chemistry, Biochemistry, Pathology

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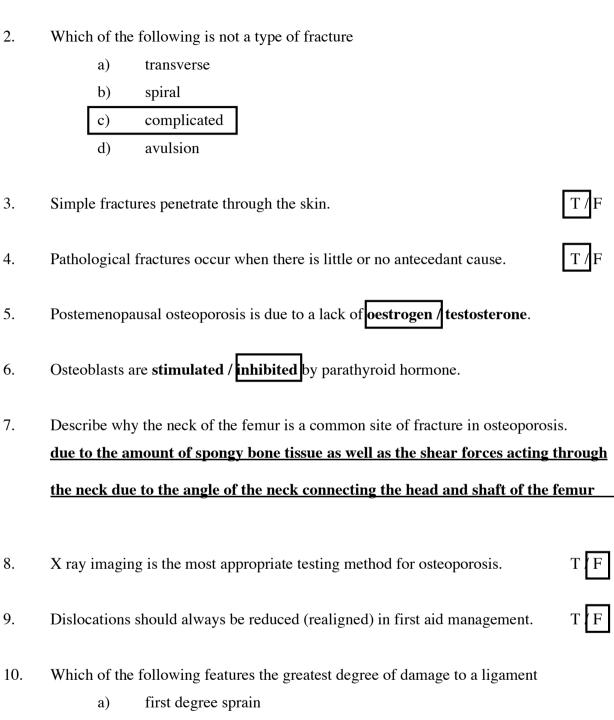
- 1. Anatomy is the study of **structure function**.
- 2. Which of the following axes are not found in the human body

a)	W axis
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- b) X axis
- c) Y axis
- 3. The **sagittal coronal** plane is formed from the X and Y axes.
- 4. Which of the following is described as closer to the front of the body.
 - a) superior
 - b) lateral
 - c) anterior
 - d) contralateral
- 5. Groups of cells from **tissues / organs**.
- 6. Which of the following produces ATP
 - a) nucleus
 - b) ribosomes
 - c) lysosomes
 - d) mitochondria
- 7. **Epithelial / connective** tissue forms glands.
- 8. **Positive negative** feedback mechanisms allow a return to homeostasis.
- 9. Which of the following is described as an increase in the number of cells
 - a) hyperplasia
 - b) hypertrophy
 - c) metaplasia
 - d) dysplasia
 - e) atophy
- 10. A **symptom** sign is an objective analysis of the effect of a disease on a patient.

Free radicals commonly bind with the cell membrane / organelles. Pathogens cause prevent disease. Which of the following is a mechanism for pathogens to enter the body a) normal secretions b) normal excretions c) fluid expressed from wounds d) all of the above e) none of the above Injuries that occur over a prolonged period of time are called acute injuries. T E Describe why infections are common consequence of being bitten by an animal. due to the penetrating nature of bites, bacteria in the saliva or on the fangs of the animal are therefore introduced into the body and cause disease Signs and symptoms of chronic injuries are usually vague and poorly defined.	<u>p</u>	redominantly anaerobic in ATP production and therefore also produce lactic a
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Unit 2	1	
1.	Direct /	ndirect trauma occurs when a bone fractures at the point of impact.



11. Describe why a strain occurring to the belly of a muscle will usually heal faster than a strain occurring to the tendon of that muscle

second degree sprain

third degree sprain

b)

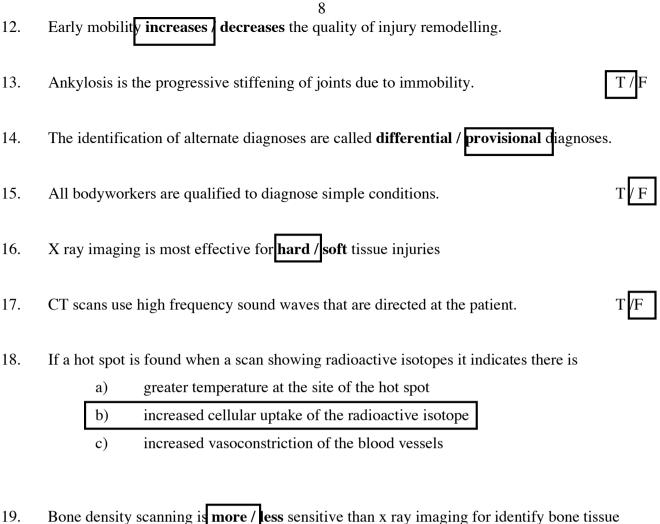
c)

the blood supply is better in the belly of the muscle relative to the tendons

In a third de	egree strain the muscle is nearly but not completely ruptured.
Intramusc	ular / intermuscular haematoma is described as bleeding between muscles.
Which of the	ne following is not a common cause of muscle cramps
a)	fatigue
b)	microtrauma
c)	poor blood supply
d) Delayed Or	sodium deficiency nset Muscle Soreness (DOMS) is due to
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Delayed Or	nset Muscle Soreness (DOMS) is due to lactic acid within the muscle
Delayed Or a) b) c)	nset Muscle Soreness (DOMS) is due to lactic acid within the muscle inflammation to the muscle or its connective tissue
Delayed Or a) b) c)	lactic acid within the muscle inflammation to the muscle or its connective tissue trauma to the nerve supply of the muscle following exercise
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Delayed On a) b) c) Which of the a)	nset Muscle Soreness (DOMS) is due to lactic acid within the muscle inflammation to the muscle or its connective tissue trauma to the nerve supply of the muscle following exercise ne following is a theory used to describe the causative process of bursitis the overload theory

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1.	Stromal repair is described as the repair of the functional cells connective tissue .
2.	Which of the following is not a phase of healing
	a) inflammatory
	b) proliferative
	c) rejuvenating
3.	Bleeding under the skin is called abruise (contusion)
4.	During inflammation the blood supply to the injured area is increased / decreased .
5.	State the substance that is cleaved from a phospholipid by phospholipase A_2 .
	arachidonic acid
6.	Which of the following is formed by lipoxygenase
	a) leukotrienes
	b) thromboxanes
	c) prostaglandins
7.	Which of the following is pro-inflammatory
	a) prostaglandin E ₁
	b) prostaglandin E ₂
	c) prostaglandin E_3
8.	Identify the protein that forms the basis of scar tissue collagen
9.	A primary secondary intent scar is formed when the two ends are closely approximated
10.	Ligaments tend to repair by regeneration rather than scar tissue formation. T
11.	Mal-union occurs when
	a) the fracture requires greater than normal time to heal
	b) the two ends of a fracture are not correctly aligned
	c) the two ends of a fracture do not meet at all



changes of osteoporosis.

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- 1. **Treatment rehabilitation** refers to the techniques that reduce or resolve the symptoms that the client is experiencing.
- 2. Which of the following directly applies medications into the central nervous system
 - a) subcutaneous injection
 - b) intrathecal injection
 - c) intravenous injection
- 3. Describe why drugs that are absorbed across the intestinal membrane pass through the liver very quickly after absorption

the blood supply of the intestines passes blood directly to the liver via the

heaptic portal vein and so any absorbed substances pass directly to the liver

- 4. The bag that contains an IV medication needs to be held **higher / lower** than the patient.
- 5. The **brand** / **generic** name of a medication is the name used by the pharmaceutical industry.
- 6. Which of the following classification of the NSW schedule of poisons requires a doctors prescription
 - a) S2
 - b) S3
 - c) S4
- 7. **Anti-coagulent / anti-inflammatory medications** are commonly used for treating chronic conditions.
- 8. Which of the following substances actually forms a blood clot and binds blood cells together
 - a) prothrombinase
 - b) thrombin
 - c) fibrin
- 9. A myocardial infarction affects the **heart / brain**.
- 10. **Heparin / warfarin** is administered via injection.

11.	Which of the following substances is an enzyme of the inflammation pathway	
	a) phospholipase	
	b) cyclo-oxygenase	
	c) lipoxygenase	
	d) all of the above	
	e) none of the above	
12.	Cortisone hydrocortisone is the active form of the medication.	
13.	NSAID medications are derived from cholesterol.	T/F
14.	Describe the role of aspirin in reducing blood clotting aspirin prevents the	
	aggregation of platelets and therefore reduces their stimulation of the clotting ca	<u>iscade</u>
		_
15.	Paracetemol has significant anti-inflammatory action.	T/F
16.	Ibuprofen can be freely given to children as it is easily metabolised.	T/F
17.	The structure of codeine is similar to morphine aspirin.	
18.	Endorphins increase the perception of pain.	T/F
19.	State one postoperative complication of open surgery.	
	infections / bleeding / rupturing of sutures / scar tissue formation	
20.	Arthroscopy allows the use of small incisions in the skin.	T/F

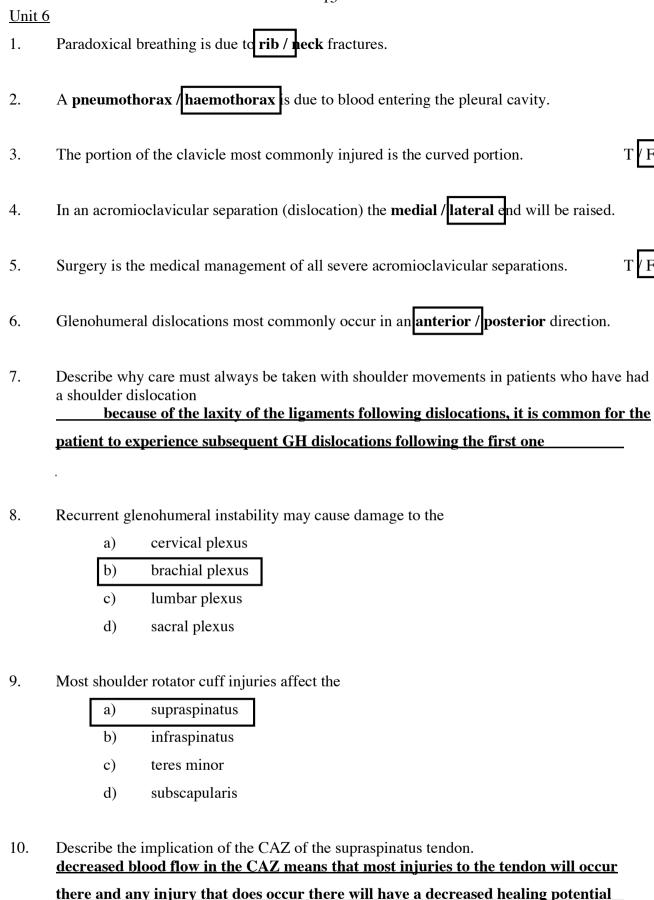
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1.	Which of the	e following is not a feature on an increased intracranial pressure	
	a)	sudden headache	
	b)	unilateral fixed and constricted pupil	
	c)	nausea	
	d)	tinnitus	
2.		oup injury is characterised by an injury to the brain on the opposite ead to the trauma.	7
3.	Describe wh	y bleeding within the cranial cavity may cause death increased pressure	<u> </u>
forci	ng the brain a	nd brainstem into the foramen magnum to compromise breathing co	ntrol
4.	Which of the	e following is not assessed in the Glascow coma scale (GCS)	
	a)	eye opening	
	b)	verbal response	
	c)	motor response	
	d)	awareness of sensory stimuli	
5)	Which of the a) b)	grade 1 grade 2	
	c)	grade 3	
6.	Le Fort fract	tures affect the bones of the pelvis.	7
7.	If the floor of	of the orbit is fractured, the eye may move inferiorly into the	
	a)	frontal sinus	
	b)	maxillary sinus	
	c)	ethmoidal sinus	
	d)	sphenoidal sinus	
8.	A nasal frac	ture will always cause a deviation of the nose.	Т

A depressed cheek bone fracture is a fracture of the zygomatic bone.

10.	A fractured tooth that does not cause pain is likely to have damaged only the
	a) enamel only
	b) enamel and dentin only
	c) enamel, dentin and nerve pulp
11.	The most commonly avulsed (dislodged) teeth are the upper / lower central incisors.
12.	Open facial wounds do not commonly bleed significantly.
13.	An orbital haematoma can be caused from trauma to
	a) the eye only
	b) the nose only
	c) either the eye or the nose
	d) neither the eye nor the nose
14.	An epistaxis is the medical name of a nosebleed / headache .
15.	If you have a patient with suspected cervical (neck) damage, you should mobilise (move) the neck to ascertain if there is a greater amount of movement than normal.
16.	In a whiplash condition, force is first applied to the anterior posterior aspect of the body.
17.	The vertebral basilar insufficiency syndrome is characterised by decreased blood flow to the brain heart.
18.	Laryngeal trauma will cause neck stiffness but will not compromise breathing.
19.	State one muscle involved in the causation of torticollis.
	SCM . scalenes / trapezius / levator scapulae



Supraspinatus **rupture** / **tendinitis** is considered a chronic injury

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12.	The drop ar	m / empty can test is used to diagnose supraspinatus tendinitis.	
13.	Subacromial	bursitis causes extreme pain on active shoulder movements.	T/F
14.	Which of the	e following is not a medical management of subacromial bursitis	
	a)	NSAIDs	
	b)	cortisol injections	
	c)	bevelling of the acromion	
	d)	tightening of the coracoacromial ligament	
15.	Biceps brack	nii ruptures are usually due to extreme force generation during lifting.	T/F
16.	A complicat	ion of a rupture of the biceps brachii is damage to the	
	a)	acetabular labrum	
	b)	glenoid labrum	
	c)	radial labrum	
17.	In bicipital in groove of the	nstability, the biceps tendon may move out of the <u>intertubercular</u> ne humerus.	
18.	Which of the	e following injuries may be caused by falling onto the outstretched arm	
	a)	shoulder joint dislocation	
	b)	acromioclavicular separation	
	c)	fractured humerus	
	d)	all of the above	
	e)	none of the above	
19.	Which of the	e following is not a feature of a thoracic outlet syndrome	
	a)	compression of the brachial plexus	
	b)	compression of the subclavian artery	
	c)	compression of the spinal cord	

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1.	A supracondylar fracture may cause growth defects in children if it affects the
	a) shaft of the humerus
	b) growth plate of the humerus
	c) neck of the humerus
	d) greater tubercle of the humerus
2.	In which Gartland classification of fracture, is there no displacement of the affected bones
	a) type I fracture
	b) type II fracture
	c) type II fracture
3.	Elbow dislocations commonly occur due to hyperflexion / hyperextension .
4.	All cases of elbow dislocations should be reduced (realigned) as part of the first aid management. TF
5.	Acute chronic olecranon bursitis is caused by falling onto the olecranon.
6.	Lateral epicondylitis features pain on resisted extension / flexion of the wrist.
7.	Following reduction and fixation of a fractured forearm, the pulses that are proximal distal to the fracture site should be checked.
8.	Describe the causation of the dinner fork deformity of a Colles fracture. the force and location of the contact causing the hand to be forced superiorly
	relative to the forearm
9.	An x ray assessment will usually be performed on a severely sprained
	wrist to rule out a fractured bone.
10.	The median nerve is compressed in which condition <u>carpal tunnel syndrome</u>
11.	Which of the following is not a test for carpal tunnel syndrome
	a) Phalens test
	b) Tinels sign
	c) Griffiths examination

Which of the following is the most commonly fracture carpal bone

	a)	pisiform	
	b)	scaphoid	
	c)	triquetrum	
	d)	trapezium	
13.	A common c	omplication of the scaphoid is avascular / agranular necrosis.	
14.	The metacarp	pal bone that is most commonly fractured is the	
	a)	first metacarpal	
	b)	second metacarpal	
	c)	third metacarpal	
	d)	fourth metacarpal	
	e)	fifth metacarpal	
15.	The phalange	es are usually fractured from crushing types of trauma.	T/F
16.	Which of the	following is not a cause of finger dislocations	
	a)	hyperflexion	
	b)	hyperabduction	
	c)	hyperextension	
17.	Mallet finger	r is due to a rupture of the extensor digitorum / pollicis tendon.	

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<u>Unit 8</u> 1.	Falling onto the pelvis can cause a crush fracture of the lumbar vertebrae.	T/F
2.	Spondyloysis is caused by a fracture on one both sides of the vertebrae.	
3.	The fractures of sponydylolosis will always show up on an x-ray.	T/F
4.	Spondyloysis / spondylolisthesis is characterised by movement of the vertebrae.	
5.	Severe spondylolisthesis can cause changes to the posture of the patient.	T/F
6.	The movement that should be avoided in a patient with spondylolisthesis is a) hyperflexion b) hyperextension c) hyperabduction d) hyperadduction	
7.	A disc herniation is due to the rupture of the a) nucleus fibrosis b) annulus fibrosis c) nucleus pulposis d) annulus pulposis	
8.	Define sciatica pain or altered sensation along the course of the sciatic nerve	
9.	Management of strained muscles of the back includes advice on correct lifting technique	T/F
10.	Scoliosis is an anterior - posterior deviation of the spine.	T/F
11.	Structural functional scoliosis may be caused by leg length differences.	

12. Describe the cause of fat emboli following a fracture pelvis.

bone marrow from the fractured bone leaving the bone and entering circulation

where it eventually blocks a blood vessel

13. A dislocated hip usually requires the hip joint to be **flexed / extended**.

14.	A consequence of reducing the blood supply to the head of the femur is			
	avascular necrosis of the femoral head	_		
15.	A fractured neck of femur is a common consequence of osteoporosis / osteoarthritis.			
16.	Surgery is the usual medical management of this condition.	T/F		
17.	State why the femur is seldom fractured <u>it is the strongest bone of the body</u>	_		
18.	Trauma to the trochanteric bursae may cause haemobursa. Define this condition. bleeding into the bursa			
	Meeting into the sursu	_		
19.	Chronic trochanteric bursitis most affects sprinters long distance runners.			
20.	Iliopsoas tendinitis can often irritate the gluteal / lliopsoas bursa.			
21.	The major muscle involved in a groin strain is the			
Γ	a) adductor longus			
L	b) vastus lateralis			
	c) semitendinosis			
22.	The rectus femoris will usually rupture from the proximal distal attachment.			
23.	A quadriceps contusion is caused by a hard / soft object impacting the thigh.			
24.	Myositis ossificans causes the formation of a small bone within muscle tissue.	T / F		
25.	Hamstring ruptures can be caused by			
	a) extreme stretching			
	b) strong contraction whilst the muscle is stretched			
	c) either of the above			
	d) neither of the above			

Following healing, hamstring ruptures seldom reoccur.

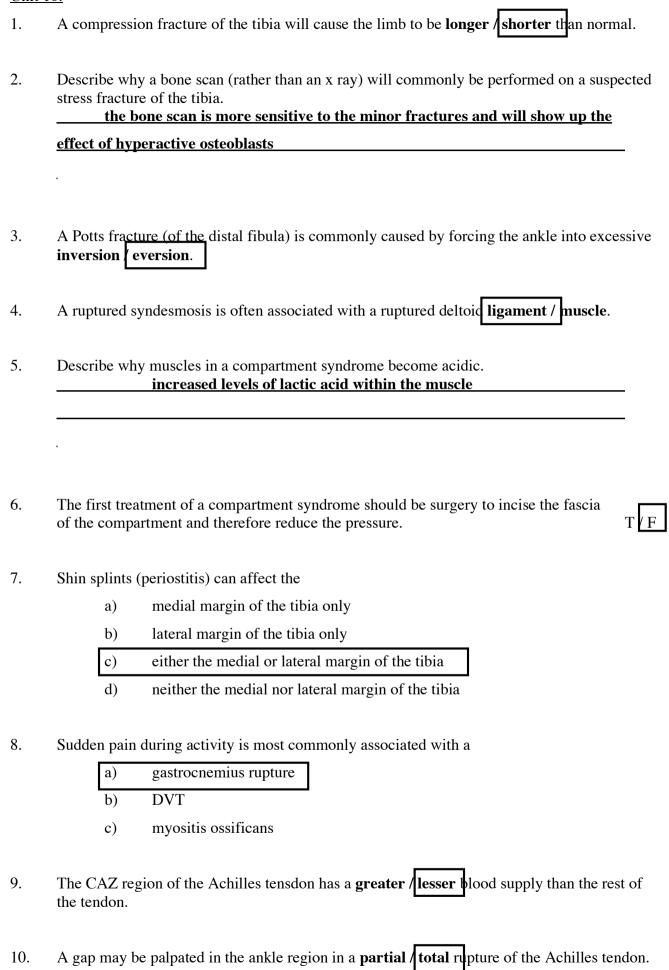
Major complications of a fracture to the femur include

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	a) infections	
	b) fat emboli	
	c) damage to growth plates	
	d) all of the above	
2.	Most cases of patellae dislocations occur in a lateral medial direction.	
3.	Osteochondritis dessicans affects the knee meniscus / cruciate ligament.	
4.	Abduction of the tibia is called a valgus varus movement.	
5.	If the medial collateral ligament of the knee is ruptured there will be a greater movement of the leg in a lateral / medial direction during testing.	
5.	The medial meniscus is less likely to be injured than the lateral meniscus.	T/F
7.	Which of the following is not a test performed on the knee by qualified practitioners a) Apleys grind test	
	b) Apleys opposition test	
	c) Apleys distraction test	
3.	If the anterior cruciate ligament is ruptures then the leg will move anteriorly / poster relative to the femur.	riorly
9.	The anterior cruciate ligament is more likely to be injured than the posterior cruciate ligament.	T/F
10.	Which of the following is not affected in O'Donohues unhappy triad	
	a) anterior cruciate ligament	
	b) lateral collateral ligament	
	c) medial meniscus	
11.	Massage is an important early treatment of knee bursitis.	T/F
12.	The O angle is commonly greater in females than males	T/F

- 13. Chondromalacia patella is due to a lateral movement of the patella over the lateral **epicondyle / condyle** of the femur.
- 14. ITB syndrome affects the lateral medial aspect of the knee.
- 15. In a condition of jumpers knee, which of the following classifications is described as pain occurring only after activity
 - a) phase 1
 - b) phase 2
 - c) phase 3
- 16. Osgoods -Schlatters disease affects children / adults.

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11.	Thompsons test is used by qualified practitioners to identify Achilles tendonitis. T/F]
12.	An ankle sprain usually damages the	
	a) anterior talofibular ligament	
	a) posterior talofibular ligament	
	a) calcaneofibular ligament	
	a) deltoid ligament	
13.	Describe why ankle sprains commonly reoccur if the original injury is not rehabilitated correctly poor proprioception following poor rehabilitation	
14.	A common cause of a fractured calcaneus is falling and landing on the heels.	
15.	Stress fractures of the feet most commonly affect the	
	a) tarsals	
	b) metatarsals	
	c) phalanges	
	d) none of the above	
16.	An elevated medial longitudinal arch is called pes cavus / planus.	
17.	All cases of plantar fasciitis lead to a heel spur. T]
18.	Tinea pedis is a	
	a) fungal infection	
	b) viral infection	
	c) bacterial infection	
19.	The big little toe is most commonly affected with an ingrown nail.	
20.	Hallucis valgus is a progressive lateral / medial deviation of the big toe.	