

NBCOT COTA - Quiz Questions with Answers

Domain 01: Collaborate and Gather Information

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1.

Which of the following is an intrinsic hand muscle innervated by the median nerve?

Abductor pollicis brevis

Flexor digitorum superficialis

Flexor digitorum profundus

Flexor pollicis longus

Correct answer: Abductor pollicis brevis

The abductor pollicis brevis is an intrinsic hand muscle innervated by the median nerve. Other intrinsic hand muscles innervated by the median nerve are the opponens pollicis, the superficial head of the flexor pollicis brevis, and the radial side of the lumbricals.

The flexor digitorum superficialis, the flexor digitorum profundus, and the flexor pollicis longus are all extrinsic muscles of the hand innervated by the median nerve.

2.

An occupational therapy evaluation reveals adhesive capsulitis of the shoulder. Which motion is **MOST** limited?

External rotation

Abduction

Extension

Flexion

Correct answer: External rotation

Adhesive capsulitis is also referred to as frozen shoulder and is characterized by very limited active and passive range of motion within the glenohumeral joint. External rotation is most affected, although other shoulder movements—abduction, internal rotation, and flexion—are also limited.

3.

Which condition is characterized by a painful and inflamed radial styloid and can be confirmed with Finkelstein's test?

De Quervain's syndrome

Dupuytren's disease

Ape hand deformity

Skier's thumb

Correct answer: De Quervain's syndrome

De Quervain's syndrome is characterized by a painful and inflamed radial styloid and affects comfortable use of the thumb for functional tasks. It is caused by inflammation of the tendons in the thumb, the abductor pollicis longus, and the extensor pollicis brevis. A Finkelstein's test can be used to confirm the condition.

Dupuytren's disease is the thickening of the fascia within the hand that causes the affected fingers to form flexion contractures. It is not known what causes the fascia to thicken.

Ape hand deformity is characterized by IP flexion in the digits and atrophy of the thenar eminence. It is caused by a median nerve injury.

Skier's thumb is an injury to the ulnar collateral ligament of the MCP joint of the thumb.

4.

Which peripheral nerve injury is characterized by sensory changes along the ulnar nerve pathway in the hand and is caused by compression of the ulnar nerve?

Guyon's canal

Carpal tunnel syndrome

Pronator teres syndrome

Radial nerve palsy

Correct answer: Guyon's canal

Guyon's canal is caused by compression of the ulnar nerve at the wrist and is characterized by sensory changes and weakness along the ulnar nerve pathway in the hand.

Carpal tunnel syndrome is caused by compression of the median nerve at the wrist and is characterized by sensory changes in the 1st-4th digits.

Pronator teres syndrome is caused by compression of the median nerve within the pronator teres (in the forearm) and is characterized by sensory changes in the 1st-4th digits as well as pain in the forearm.

Radial nerve palsy is caused by compression of the radial nerve, resulting in decreased ability to perform wrist extension (wrist drop) or thumb and MP extension.

5.

What principles should an OTA follow if they are measuring sensation as part of a biomechanical evaluation?

Select the three **BEST** responses.

Have the patient close their eyes during the testing

Testing should be done on the uninvolved side first

Apply stimuli to the back of the limb and front of the limb

When testing proprioception, the patient positions their limb

When testing kinesthesia, the patient moves their limb

Two-point discrimination is measured with a dynamometer

Therapists should demonstrate how the sensory testing will occur while the patient has their eyes open, then complete it with the patient's eyes closed. Sensory testing should also be done on the uninvolved side first by applying stimuli to the volar and dorsal aspects of the limb.

When testing proprioception, it's important that the OTA places the patient's extremities in a certain position so the patient can mimic that positioning with the other limb. When testing kinesthesia, the OTA should move the limb and have the patient respond by saying how it is positioned. Two-point discrimination is measured with a paper clip, Boley Gauge, or Disk-Criminator. A dynamometer is used to measure grip strength.

6.

What concept presides during the associated stage of learning?

How best to perform a new skill

What is the skill is

How can the skill be applied in other situations

When to complete the skill

Correct answer: How best to perform a new skill

The associated stage is characterized by developing the ability to consistently perform the new skill. The individual will learn how best to perform a skill to ensure consistent results.

The cognitive stage is characterized by learning a new skill. An individual must determine the desired skill, plan how to learn the new skill, and begin to practice the skill.

The autonomous stage is characterized by the ability to utilize the skill across environments and situations and modify it according to variations in the environment. The goal is still to maintain a high consistency of performance.

When to complete a skill is not a consideration in the stages of motor learning.

7.

What age-related changes might an OTA expect to see in an evaluation?

Select the three **BEST** responses.

Slight changes in muscle mass

Decreased endurance

Postural changes

Lower bone mass and density

Flattened intervertebral discs

Lower cerebral blood flow

Changes in muscle mass, lower endurance, and postural changes are all normal parts of aging that will be seen and accounted for during an OT evaluation.

While adults do naturally experience lower bone mass and density, flattened spinal discs, and lower cerebral blood flow with age, this is not something that an OTA will see (or assess) during their evaluation.

8.

The suffix "-itis" indicates inflammation. Which term describes a condition of inflammation of the bladder?

Cystitis

Dermatitis

Nephritis

Colitis

Correct answer: Cystitis

Cyst- refers to the bladder (or, more generally, a sac) and -itis refers to inflammation. In this instance, cystitis refers to inflammation of the urinary bladder.

Derm- means "skin" and dermatitis indicates a condition of inflammation of the skin.

Nephr- means "kidney" and nephritis indicates a condition of inflammation of the kidney.

Colitis refers to inflammation of the lining of the colon.

9.

Once service competency has been established, what part of an orthopedic evaluation can an OTA assist with?

Select the three **BEST** responses.

Measuring edema using a volumeter

Measuring AROM using a goniometer

Using a dynamometer to measure grip strength

Administering the FIM

Administering the Barthel

Measuring a patient for an orthosis

Once an OTR has determined they are competent in these areas, it is within an OTA's scope of practice to measure edema, measure AROM, and take a patient's grip strength.

OTAs cannot complete standardized assessments, so using the Functional Independence Measure (FIM) and Barthel are not appropriate. OTAs also cannot fit patients for orthoses, since this is part of an OTR's scope of practice.

10.

What is considered an intrinsic factor of falls?

Vestibular concerns

Medication side effects

Poor lighting

Correct answer: Vestibular concerns

Vestibular impairments such as vertigo and postural sway are medical concerns, which are all considered an intrinsic risk factor for falling since it cannot be modified.

Medication side effects are an extrinsic risk factor since they can be changed through adjustments and new prescriptions. Poor lighting is another extrinsic risk factor, since lighting can be adjusted to prevent someone's risk of falling.

11.

Why might a patient need stand-by assistance to complete a certain task?

Select the three **BEST** responses.

The activity was recently modified by the therapist.

The patient needs some help for errors.

The patient needs some safety reminders.

The patient needs added time.

The patient needs physical assistance, but not cognitive assistance.

The patient does not need any help, but the therapist is nervous.

Stand-by assistance is warranted if the activity was recently changed, if the patient cannot recognize their own errors and needs therapist help for that, and if they need safety reminders.

If a patient needed added time, they would be considered modified independent. If the patient needs physical assistance only, they would not be stand-by assistance since that is a "no contact" assist level. If the patient does not need any help, they would be labeled modified independent or independent, regardless of the therapist's feelings.

12.

Which two muscles of the rotator cuff are involved in external rotation of the shoulder?

Infraspinatus and teres minor

Supraspinatus and teres minor

Supraspinatus and subscapularis

Subscapularis and infraspinatus

Correct answer: Infraspinatus and teres minor

Both the infraspinatus and the teres minor control external rotation of the shoulder.

Subscapularis controls internal rotation, while supraspinatus controls abduction and flexion.

13.

Which type of amputation involves removing the entire finger (distal to metacarpal)?

Ray amputation

Hemipelvectomy

Forequarter amputation

Syme's amputation

Correct answer: Ray amputation

A hemipelvectomy involves removing the entire leg as well as half of the pelvis.

A forequarter amputation includes the entire arm as well as the clavicle and scapula.

Syme's amputation involves amputating the foot at the point of the ankle.

14.

All the cranial nerves go to the head and neck **EXCEPT** which one?

Cranial Nerve 10

Cranial Nerve 6

Cranial Nerve 9

Cranial Nerve 11

Correct answer: Cranial Nerve 10

The tenth cranial nerve is the vagus nerve, which goes down to the thorax and abdomen to provide innervation to the stomach and other digestive organs.

Each of the other nerves remains within the head and neck.

15.

When completing a wheelchair assessment, what part of the body should be measured first?

Pelvis

Lower body

Trunk/torso

Correct answer: Pelvis

The correct order for measuring body parts to fit someone for a wheelchair is as follows: pelvis, lower extremities, trunk/torso, upper extremities, head/neck, and feet. This sequence is recommended because patients must have proximal stability before they can achieve distal mobility.

16.

Which of the following are methods for completing a psychosocial assessment?

Select the three **BEST** responses.

Questionnaires

Self-report checklists

Clinical observation

Interviews with only family

Movement testing

Coordination testing

Mental health assessments can come in the form of structured or unstructured interviews (to help with the completion of an occupational profile), clinical observations, rating scales, standardized tests, questionnaires, and self-report checklists.

Interviews that only focus on family input might be helpful, but are not comprehensive enough to stand alone. Range-of-motion and coordination testing might be a brief part of the mental health evaluation process if a patient demonstrates difficulty with ADLs, but this will not be a major priority.

17.

What behaviors might an OTA expect to see from a patient who has a Rancho Los Amigos Level of IX (Purposeful, Appropriate)?

Select the three **BEST** responses.

Low frustration tolerance

Depressed affect

Acknowledges the feelings and needs of others

Cannot realistically plan or schedule activities

Can recognize inappropriate behavior

Has superficial awareness of their own condition

Patients who are considered RLA level IX (purposeful, appropriate) will present with symptoms of depression, a low frustration tolerance, and some irritability. They are also able to consider others by acknowledging their needs and feelings.

Patients who are RLA level VII have trouble planning for the future and have little insight into their own condition. Patients who are RLA level VIII can recognize inappropriate behavior in others, while those who are level IX are able to self-monitor their own behavior.

18.

What impairment describes the inability to read a familiar language?

Alexia

Acalculia

Agraphia

Anomia

Correct answer: Alexia

Alexia is the inability to read a familiar language.

Acalculia is the inability to complete mathematical equations, such as addition and subtraction. Agraphia is the inability to write a familiar language. Anomia is characterized by the inability to recall and verbalize commonly recognized objects, people, etc.

19.

Which classification of burn affects the epidermis and the superficial dermis?

Superficial partial-thickness burn

Deep partial-thickness burn

Full-thickness burn

Superficial burn

Correct answer: Superficial partial-thickness burn

A superficial partial-thickness burn is a second degree burn that affects the epidermis and the superficial dermis. This burn heals in 1 to 3 weeks and is characterized by increased pain compared to a superficial burn, as well as redness and blisters.

A deep partial-thickness burn is a second degree burn that affects the epidermis and a greater level of dermis (and thus hair follicles and sweat glands). This burn heals in 3 to 4 weeks and has the potential to affect sensation as well as a greater risk for infection.

A full-thickness burn, or third-degree burn, affects the epidermis, dermis, hair follicles, sweat glands, and nerve endings. This burn requires extensive time to heal and is characterized by a white, waxy, and leathery appearance.

A superficial burn, or first-degree burn, affects the epidermis and heals in 3 to 7 days. The affected area may be slightly painful but will show minimal swelling.

20.

What might be included in a contextual assessment as part of a wheelchair evaluation?

Select the three **BEST** responses.

Doorways

Hallways

Restrooms

Socioeconomic status

Wheelchair control mechanisms

The ability of the wheelchair to interact with other medical equipment

A contextual evaluation should include an assessment of physical environments as well as building characteristics, such as accessibility, doorways, hallways, restrooms, workspace design, parking, and more.

Socioeconomic status, wheelchair control mechanisms, and the wheelchair's interaction with other medical equipment do not fall under a contextual assessment, but they should be assessed in other parts of the evaluation.

21.

Which term describes slow movement that is typical with patients who have Parkinson's disease?

Bradykinesia

Akinesia

Athetosis

Dystonia

Correct answer: Bradykinesia

Bradykinesia characterizes a slow speed of movement and slow motor responses.

Akinesia is decreased initiation in regard to motor planning and movement. Athetosis is characterized by writhing muscle movements in the presence of decreased motor control. Dystonia is continual involuntary muscle movement.

22.

What is the correct root word for a term describing the diaphragm?

Phren-

Hepat-

Gastr-

Gloss-

Correct answer: Phren-

The root word "phren-" means diaphragm. The phrenic nerve innervates the diaphragm.

The root word "hepat-" means liver. The term hepatitis means inflammation of the liver.

The root word "gastr-" means stomach. Gastroenterology is the study of the digestive system.

The root word "gloss-" means tongue. Glossodynia refers to pain in the tongue.

23.

Which of the following does **NOT** accurately characterize lateral epicondylitis?

Golfer's elbow

Repetitive use of wrist extensors

Repetitive microtrauma

Overuse of extensor carpi radialis brevis

Correct answer: Golfer's elbow

Golfer's elbow is characteristic of medial epicondylitis, as it is caused by repetitive use of the wrist flexors.

Repetitive use of the wrist extensors is characteristic of lateral epicondylitis.

Repetitive microtrauma can cause degenerative changes to the tendon's origin, leading to lateral epicondylitis.

Extensor carpi radialis brevis is an example of one of the major wrist extensors that can be overworked and can lead to lateral epicondylitis.

24.

Which of the following upper extremity conditions is the result of median nerve injury?

Ape hand deformity

Dupuytren's disease

Skier's thumb

De Quervain's syndrome

Correct answer: Ape hand deformity

Ape hand deformity is characterized by IP flexion in the digits and atrophy of the thenar eminence and is caused by a median nerve injury.

Dupuytren's disease is the thickening of the fascia within the hand that causes the affected fingers to form flexion contractures. It is not known what causes the fascia to thicken.

Skier's thumb is an injury to the ulnar collateral ligament of the MCP joint of the thumb.

De Quervain's syndrome is characterized by pain in the radial styloid and affects comfortable use of the thumb for functional tasks. It is caused by inflammation of the tendons in the thumb, the abductor pollicis longus, and the extensor pollicis brevis.

25.

What are the goals of seating and positioning systems?

Select the three **BEST** responses.

Improving posture

Assisting with pressure relief

Helping properly align the trunk and joints

Allowing more blood flow to the brain

Increasing happiness

Allowing all people to assume the same neutral position

Seating and positioning systems help in many ways, including improving posture, offering more stability and comfort, enhancing pressure relief to maintain skin integrity, allowing proper alignment of the trunk/upper body/lower body, decreasing a person's risk for injuries such as decubiti and contractures, improving sitting tolerance and endurance, allowing for more visual readiness during ADLs, and generally improving participation.

More blood flow to the brain is not a goal of seating and positioning systems. Seating and positioning systems do not directly address emotional health, so improving happiness is not a benefit. Positioning is very person-specific, so not everyone may be able to assume neutral. This will vary based on the person and their wheelchair.

26.

The rotator cuff muscles work together to control:

Humeral head positioning

Shoulder stability

Scapular winging

The coracoacromial arch

Correct answer: Humeral head positioning

The rotator cuff muscles (subscapularis, infraspinatus, supraspinatus, and teres minor) maintain the stability and positioning of the humeral head within the glenoid fossa (together, the glenohumeral joint).

The rotator cuff does indirectly stabilize the shoulder, though this is not its main purpose. These muscles also do not control scapular winging or the coracoacromial arch.

27.

Which of the following is **NOT** recommended criteria for splinting to address burns?

IP joints fully flexed

Wrist in 20 to 30 degrees of extension

MCPs in 70 degrees of flexion

Thumb abducted and extended

Correct answer: IP joints fully flexed

Appropriate splinting for burns is placing the wrist at 20 to 30 degrees of extension, MCP joints in 70 degrees of flexion, IP joints fully extended, and the thumb abducted and extended. So placing the IP joints fully flexed would not be indicated.

28.

Which of the following is **NOT** a muscle of shoulder extension?

Teres minor

Latissimus dorsi

Teres major

Posterior deltoid

Correct answer: Teres minor

The teres minor is part of the rotator cuff and functions in external rotation of the shoulder, not extension.

The latissimus dorsi, teres major, and posterior deltoid all assist with shoulder extension.

29.

What is a palpation site that therapists can use to take a patient's pulse?

Select the three **BEST** responses.

Popliteal

Radial

Temporal

Cardiac

Ulnar

Occipital

The popliteal (behind the knee), radial (at the wrist on the side of the thumb), and temporal (at each side of the forehead) are all viable places to take a pulse.

Cardiac, ulnar, and occipital are not locations where a pulse can be found.

30.

After a CVA, a patient may be unable to understand what the hospital staff and their family are saying to them. What is this impairment called?

Wernicke's aphasia

Broca's aphasia

Global aphasia

Anomia

Correct answer: Wernicke's aphasia

Wernicke's aphasia (receptive) is the decreased comprehension of verbal language.

Broca's aphasia (expressive) describes an inability to verbally express oneself. Global aphasia is a combination of Broca's and Wernicke's aphasia, including decreased verbal expression and comprehension. Anomia is characterized by the inability to recall and verbalize commonly recognized objects, people, etc.

31.

Which classification of burn affects the nerve endings and is characterized as a "third-degree burn"?

Full-thickness burn

Superficial burn

Superficial partial-thickness burn

Deep partial-thickness burn

Correct answer: Full-thickness burn

A full-thickness burn, or third-degree burn, affects the epidermis, dermis, hair follicles, sweat glands, and nerve endings. This burn requires extensive time to heal and is characterized by a white, waxy, and leathery appearance.

A superficial burn, or first degree burn, affects the epidermis and heals in 3 to 7 days. The affected area may be slightly painful but will show minimal swelling.

A superficial partial-thickness burn is a second degree burn that affects the epidermis and the superficial dermis. This burn heals in 1 to 3 weeks and is characterized by increased pain compared to a superficial burn, as well as redness and blisters.

A deep partial-thickness burn is a second degree burn that affects the epidermis and a greater level of dermis (and thus hair follicles and sweat glands). This burn heals in 3 to 4 weeks and has the potential to affect sensation as well as a greater risk for infection.

32.

What is the **MOST** common type of shoulder dislocation?

Anterior dislocation

Posterior dislocation

Inferior dislocation

There is no data on types of dislocations

Correct answer: Anterior dislocation

Anterior dislocations occur more often than posterior or inferior dislocations and are typically caused by overuse or injury.

33.

According to motor learning theory, which of the following is a continuous task?

Swimming

Playing an instrument

Brushing teeth

Retrieving luggage at the airport

Correct answer: Swimming

Continuous tasks are ongoing tasks that do not end until the performer decides the task is completed. Swimming is an example of a task that is ongoing until the individual decides to finish.

The other options have more consistent stopping points when the task is completed.

34.

Which of the following is a function of the parasympathetic division of the autonomic nervous system?

Increases peristalsis

Increases blood pressure

Decreases flow of saliva

Elevates heart rate

Correct answer: Increases peristalsis

The parasympathetic division of the autonomic nervous system returns the body to a stable condition, which involves lowering the heart rate and blood pressure as well as increasing peristalsis and saliva.

The sympathetic division of the autonomic nervous system is associated with the "fight or flight" response. Blood pressure and heart rate are increased in preparation for an emergency.

35.

What important aspects should a therapist include in wheelchair mobility training?

Select the three **BEST** responses.

Community mobility

Use of brakes and leg rests

Basics of wheelchair propulsion

Other wheelchair options

Keeping pace with others

Sleeping in a wheelchair

Therapists should educate wheelchair users on proper sitting posture, pressure relief, use of accessories, wheelchair propulsion, safe use of wheelchair features (brake usage, leg rests, and arm rests), proper transfers, community mobility, and maintenance.

It is not necessary to educate patients on other wheelchair options, since this should be a part of the assessment process, which has already taken place. Keeping pace with others is not a standard part of wheelchair training, but it is something therapists can address if the patient requests it. Sleeping in a wheelchair is not ergonomic, so it is not recommended and should not be a part of standard wheelchair training.

36.

Knowledge of medical terminology is necessary for competency in reading and writing medical documents. Which term is **NOT** related to the heart?

Sternotomy

Tachycardia

Bradycardia

Cardiomegaly

Correct answer: Sternotomy

Sterno- means "sternum" and -otomy means "surgery" or "cutting", so sternotomy is a surgical cut through the sternum, which happens for a range of reasons other than heart surgery.

Tachy- means "fast" and cardio- means "heart", so tachycardia is a term that means fast heartbeat.

Brady- means "slow" and cardio- means "heart", so bradycardia is a term that means slow heartbeat.

Cardio- means "heart" and megaly- means "enlargement", so cardiomegaly is a term that means enlarged heart.

37.

What wheelchair dimensions are appropriate for the following patients?

Select the three **BEST** responses.

A 40-year-old man of average size in a wheelchair with an 18" seat width

An 8-year-old of average size in a wheelchair with a 14" seat width

A toddler of average size in a wheelchair with a 12" seat width

A 30-year-old woman of average size in a wheelchair with a 24" seat width

A 15-year-old girl of average size in a wheelchair with 15" of seat depth

A 50-year-old woman of average size in a wheelchair with a seat height of 19.5"

The ideal seating dimensions for an average adult wheelchair are: 18 inches wide, 16 inches deep, and 20 inches tall. Ideal dimensions for an average children's wheelchair are: 14 inches wide, 11.5 inches deep, and 18.75 inches tall. Sufficient seating for an average "tiny tot" wheelchair includes the following dimensions: 12 inches wide, 11.5 inches deep, and 19.5 inches tall. According to these figures, a seat width of 18" inches is appropriate for an average 40-year-old, as is a seat width of 14" for an average 8-year-old and a seat width of 12" for an average toddler.

The other dimensions are ill-fitting and would not be appropriate for such patients.

38.

Assessment of visual skills is often a necessary part of an OT evaluation, particularly when the patient has experienced a recent CVA or TBI. What visual skill is characterized by the ability to see clearly at various distances?

Visual acuity

Visual field

Topographical disorientation

Scanning

Correct answer: Visual acuity

Visual acuity describes the ability to clearly see at various distances.

Visual field describes an individual's peripheral vision in the upper and lower quadrants on both the right and left. Topographical disorientation is when someone struggles to navigate the space around them. Scanning involves the ability to search for and locate specific information in the environment. Scanning is often formally tested in written form via a letter cancellation test.

39.

Regarding cerebral vascular accidents, which condition resolves within 24 hours?

Transient ischemic attack

Cerebral infarction

Cerebral hemorrhage

Cerebral arteriovenous malformation

Correct answer: Transient ischemic attack

A transient ischemic attack (TIA) is often considered a "mini stroke" as an individual initially presents with stroke symptoms, but they resolve within 24 hours.

A cerebral infarction is a blockage in the artery that is caused by a blood clot. A cerebral hemorrhage is bleeding in the brain that results from high blood pressure or an aneurysm. A cerebral arteriovenous malformation is a twisted mass of blood vessels that is present at or around birth.

40.

Which type of amputation involves removing the entire arm as well as the clavicle and scapula?

Forequarter amputation

Shoulder disarticulation

Above-elbow amputation

Elbow disarticulation

Correct answer: Forequarter amputation

A forequarter amputation includes removal of the entire arm as well as the clavicle and scapula.

A shoulder disarticulation includes the entire arm only, ending with the humerus.

An above-elbow amputation originates on the humerus.

An elbow disarticulation originates at the distal elbow.

41.

A fibers are the largest nerve fibers, and they send quick impulses. What type of A fiber sends sensory information related to light and deep touch?

Beta

Alpha

Gamma

Delta

Correct answer: Beta

Beta nerve fibers send sensory information related to light and deep touch.

Alpha nerve fibers send information about body awareness and somatic motor functions. Gamma nerve fibers send motor planning information to the muscles for movement. Delta nerve fibers send sensory information related to pain, temperature, and touch.

42.

The occupational therapy evaluation denotes that a patient has a median nerve impairment. Which muscle would **NOT** be affected?

Opponens digiti minimi

Abductor pollicis brevis

Opponens pollicis

Flexor digitorum superficialis

Correct answer: Opponens digiti minimi

The opponens digiti minimi is innervated by the ulnar nerve and controls opposition of the fifth finger.

The abductor pollicis brevis, opponens pollicis, and the flexor digitorum superficialis are all innervated by the median nerve.

43.

What aspects of a home can be changed without much effort to make it safer?

Select the three **BEST** responses.

Removing clutter from walkways

Hiding and securing exposed wires and cords

Adding task lighting

Widening door frames

Changing a tub to a walk-in shower

Installing thermostats for improved temperature control

Therapists can quite easily help patients remove clutter from walkways, secure exposed wires and cords, and add task lighting to make a home safer.

Other home modifications include widening door frames, remodeling a bathroom to include a walk-in shower, and installing a thermostat. However, these options will take more time and energy, and often require assistance from a professional.

44.

Which classification of burn involves the destruction of the nerve along the path it runs?

Electrical burn

Superficial partial-thickness burn

Deep partial-thickness burn

Full-thickness burn

Correct answer: Electrical burn

Electrical burns destroy the nerve along its pathway and are most common with fourth-degree burns.

A superficial partial-thickness burn is a second degree burn that affects the epidermis and the superficial dermis. This burn heals in 1 to 3 weeks and is characterized by increased pain compared to a superficial burn, as well as redness and blisters.

A deep partial-thickness burn is a second degree burn that affects the epidermis and a greater level of dermis (and thus hair follicles and sweat glands). This burn heals in 3 to 5 weeks and has the potential to affect sensation as well as a greater risk for infection.

A full-thickness burn, or third degree burn, affects the epidermis, dermis, hair follicles, sweat glands, and nerve endings. This burn requires extensive time to heal and is characterized by a white, waxy, and leathery appearance.

45.

What criteria have been met if a patient is considered independent in a task?

Select the three **BEST** responses.

They can implement a full course of action.

They can account for potential mistakes.

They can avoid safety hazards in novel and familiar scenarios.

They need added time to complete the task.

They only need verbal cues.

They only need someone to watch in case they need help.

Patients who are considered independent are able to fully execute a motor plan, consider any errors that arise, and predict/avoid safety risks in any situation.

If patients need additional time to complete the task, they are considered modified independent. If a patient needs verbal cues but no physical assistance, they cannot be considered independent. If they need someone to watch, they are considered needing stand-by assist.

46.

An OTA just got assigned to work with a patient who has MRSA. How can this therapist best educate this patient to prevent spreading the condition?

Avoid communal bathing or swimming areas

Offer resting hand splints to allow for function and prevent contractures

Wash their hands as little as possible

Correct answer: Avoid communal bathing or swimming areas

Communal areas such as spas, saunas, or swimming pools can spread MRSA to uninfected individuals, so they should be avoided. Resting hand splints are not indicated for MRSA, since this is a bacterial infection that does not cause contractures. Patients should not be educated to wash their hands as little as possible, since good hand hygiene can actually help prevent the spread of this infection.

47.

If a patient experienced an occipital stroke due to a blockage in the posterior cerebral artery, what impairments might they have?

Vision loss or changes

Hearing loss or changes

Impaired or absent sensation

Poor attention and focus

Correct answer: Vision loss or changes

The occipital lobe primarily carries out visual functions.

The temporal lobe primarily carries out auditory functions. The parietal lobe is responsible for processing sensory information. The frontal lobe is responsible for executive functions, such as attention.

48.

Which type of amputation is also known as a below-knee amputation?

Transtibial amputation

Transfemoral amputation

Hemipelvectomy

Hip disarticulation

Correct answer: Transtibial amputation

A transtibial amputation is also known as a below-knee amputation and originates at the tibia and fibula.

A transfemoral amputation is also known as an above-knee amputation and originates at the femur.

A hemipelvectomy involves removal of the entire leg as well as half of the pelvis.

A hip disarticulation is amputation of the entire leg, including the full femur.

49.

A client goes to open the door but instead bangs their hand into the wood instead of grasping the doorknob. What symptom are they experiencing?

Dysmetria

Dyssynergia

Intention tremor

Dysdiadochokinesia

Correct answer: Dysmetria

Dysmetria is decreased accuracy when reaching toward an item, such as reaching to brush the dog but landing the brush on his nose rather than his neck.

Dyssynergia is difficulty moving each part of a limb cohesively. For example, when reaching, they move the shoulder first, then the elbow, then the hand all separately rather than in one motion. An intention tremor is a tremor that occurs with attempts at active movement, such as reaching to grasp a glass. Dysdiadochokinesia (DDK) is the inability to quickly alternate movements, such as alternating supination and pronation between the arms.

50.

Which of the following cranial nerves is **NOT** purely sensory in nature?

Cranial Nerve 5

Cranial Nerve 1

Cranial Nerve 2

Cranial Nerve 8

Correct answer: Cranial Nerve 5

The fifth cranial nerve is the trigeminal nerve, which is mixed between sensory and motor to govern chewing.

The remaining cranial nerves all have sensory functions: the first is the olfactory nerve (smelling), the second is the optic nerve (sight), and the eighth is the vestibulocochlear nerve (body positioning and sound).

51.

What is **NOT** a developmental consideration for an OTA to keep in mind when assisting with a pediatric evaluation?

Select the three **BEST** responses.

Assess only a child's sensory and motor skills

If you see the child in person, skip teacher and family interviews

Identify how play activities can be completed as-is rather than modifying

Identify family and community supports

Observe both structured and spontaneous play opportunities

Select activities based on a child's developmental level

It's important to assess a child's motor and sensory skills, but an OTA must also take cognition and psychosocial skills into account. Teacher and family interviews will always give therapists important insight into a child's function, so this should be included in any evaluation. Therapists should always attempt to modify play and leisure activities to better fit the child's abilities and needs.

*The last three statements are true, and should be taken into consideration during **all** pediatric evaluations.*

52.

Which of the following is **NOT** characteristic of lateral epicondylitis?

It's known as golfer's elbow

Injury at the origin of the tendon

Caused by repetitive use of wrist extensors

It's known as tennis elbow

Correct answer: It's known as golfer's elbow

Golfer's elbow is a common term for medial epicondylitis.

Lateral epicondylitis is caused by repetitive wrist extension, and the injury is located at the origin of the tendon. It is also referred to as tennis elbow.

53.

What concept presides during the cognitive stage of learning?

What the desired skill is

How to best perform a skill

How to apply these skills to other situations

When to complete a skill

Correct answer: What the desired skill is

The cognitive stage is characterized by learning a new skill. So, the individual must determine what to do and plan how to learn the new skill so they can begin practicing it.

The associated stage is characterized by consistently performing the new skill. The individual will learn how to best perform a skill to ensure consistent results.

The autonomous stage is characterized by utilizing the skill across environments and situations. The goal is still to maintain a high consistency of performance while learning how to succeed in any circumstances.

When to complete a skill is not a consideration in the stages of motor learning.

54.

Which of the following hand disorders is characterized by finger flexion contractures secondary to thickened fascia?

Dupuytren's disease

Skier's thumb

Ape hand deformity

De Quervain's

Correct answer: Dupuytren's disease

Dupuytren's disease is thickening of the fascia within the hand that causes the affected fingers to form flexion contractures.

Skier's thumb is an injury to the ulnar collateral ligament of the MCP joint of the thumb.

Ape hand deformity is characterized by IP flexion in the digits and atrophy of the thenar eminence and is caused by a median nerve injury.

De Quervain's is tenosynovitis of the abductor pollicis longus and extensor pollicis brevis, which causes pain and swelling over the radial styloid.

55.

Three of the rotator cuff muscles insert on the greater tuberosity of the humeral head. Which muscle inserts on the lesser tuberosity?

Subscapularis

Supraspinatus

Infraspinatus

Teres minor

Correct answer: Subscapularis

The muscles of the rotator cuff include the subscapularis, infraspinatus, supraspinatus, and teres minor. Only the subscapularis, which is located on the front of the scapula, inserts on the lesser tuberosity of the humerus.

The supraspinatus, infraspinatus, and teres minor all insert on the greater tuberosity of the humerus.

56.

Which medical root word refers to cancer?

Carcino-

Asthenia-

Chondro-

Gastr-

Correct answer: Carcino-

The root word "carcino-" means cancer. The term carcinoma refers to a cancerous mass or tumor.

The root word "asthenia-" means weakness. The term myasthenia means muscle weakness.

The root word "chondro-" means cartilage. The term chondritis means inflammation of the cartilage.

The root word "gastr-" means stomach. Gastroenterology is the study of the digestive system.

57.

What are the main parts of an evaluation for a patient with arthritis?

Select the three **BEST** responses.

Active range of motion

Grip strength

Edema

Passive range of motion

Social participation

Cognition

Patients with arthritis should undergo an evaluation focused on measuring active range of motion, grip strength, ADL function, edema, and pain.

Passive range of motion is not a recommended aspect of the evaluation, particularly in the inflammatory stages of the condition. Social participation and cognition will likely be addressed as part of the evaluation process, but they are not typically the focal points.

58.

How might an OTA assist with a nutritional evaluation for an older adult?

Collecting data on a patient's mental status and their desire to eat

Asking older adults in the dining room of a senior center how often another older adult eats

Asking about their ability to get to the grocery store

Correct answer: Collecting data on a patient's mental status and their desire to eat

An OTA can assist with this type of evaluation by helping the OTR collect data on a patient's psychosocial status, including but not limited to the patient's mental status, intrinsic motivation to eat, grief, social components of eating, and depression.

Asking those in a senior center about another adult is not appropriate, since this is not a medical setting nor is it where a patient spends most of their time, so it would not give good data. While asking about a patient's ability to get to the grocery store will eventually be part of their intervention and recommendations, this is not pertinent to a nutritional assessment.

59.

What muscle grade is appropriate for shoulder flexion that moves through partial range of motion in a gravity-eliminated plane?

2-

2

2+

3

Correct answer: 2-

This is appropriate for someone who can complete partial range of motion without the pressure of gravity.

- **Grade 0:** demonstrates flaccidity and no strength
 - **Grade 1:** demonstrates muscle tension but no movement during range of motion attempts
 - **Grade 2:** demonstrates full range of motion only in a gravity-eliminated position
 - **Grade 2-:** demonstrates partial range of motion in gravity-eliminated position
 - **Grade 3:** muscle breaks immediately with force and completes full range of motion
 - **Grade 4:** maintains testing position with moderate force and also completes full range of motion
 - **Grade 5:** maintains testing position with full force and also completes full range of motion
-

60.

What sort of data can an OTA gather as part of an assessment of pain?

Select the three **BEST** responses.

Ask about the type of pain (burning, throbbing, aching, etc.)

Determine the location of the pain

Identify activities that trigger or relieve pain

Give them a strict exercise regimen

Massage in preparation for functional observation

Asking the patient's colleagues about their body posture when working

An OTA can ask patients about the location, intensity, onset, duration, and descriptors of their pain. They can also complete functional assessments that give additional insight into the pain they are experiencing.

A strict exercise regimen is not only contraindicated (gentle exercise might be indicated, depending on the patient's circumstances) but it's part of the intervention process, not the evaluation. A functional observation is often part of a pain assessment (especially if the patient reports the most discomfort during certain activities like typing or sitting) but massage is an intervention, so that would not be part of the evaluation process. Asking the patient's coworkers about their posture is not indicated, since the therapist can observe it or the patient can report it.

61.

Which of the following are standardized assessments designed to test dexterity and coordination?

Select the three **BEST** responses.

Purdue Pegboard

Jebson Hand Function Test

O'Connor Tweezer Test

Barthel Index

Disk-Criminator

Pinchmeter

The Purdue Pegboard, Jebson Hand Function Test, and the O'Connor Tweezer Test are all dexterity-based assessments.

The Barthel Index is designed to measure a person's independence in ADLs, the Disk-Criminator measures two-point discrimination as part of sensation testing, and the pinchmeter is used to assess pinch strength.

62.

An occupational therapy assistant in a neuro rehab setting is able to elicit a Babinski's sign in his adult male patient. This is indicative of:

An upper motor neuron lesion

A lower motor neuron lesion

A normal reflex

A very ticklish foot

Correct answer: An upper motor neuron lesion

When elicited in an adult, Babinski's sign is indicative of an upper motor neuron lesion. This is the emergence of a primitive reflex. A typical response for an adult is toe flexion, an atypical response is toe extension and fanning.

A lower motor neuron lesion does not elicit reflexive responses.

63.

Which term does **NOT** refer to a condition of the joints?

Multiple myeloma

Arthrogryposis

Bursitis

Spinal stenosis

Correct answer: Multiple myeloma

Multiple myeloma affects the bones, but it is a type of cancer that does not directly impact the joints.

Arthrogryposis is a congenital condition that causes multiple joint contractures. Bursitis is a condition that causes painful and swollen fluid-filled sacs between the joints. Spinal stenosis is a condition that causes the spaces between the vertebrae to narrow, causing pain and swelling.

64.

What intervention is **NOT** appropriate for a patient with obesity as part of a lifestyle redesign program?

Activity elimination

Personalized exercise program

Supportive coaching

Correct answer: Activity elimination

As part of the lifestyle redesign program, activity modification is more appropriate than activity elimination since this allows patients to substitute healthy habits for riskier, unhealthy ones. Personalized exercises programs and supportive coaching are both large components of lifestyle redesign for patients with obesity.

65.

What characteristics should be noted in a home evaluation for environmental modifications?

Select the three **BEST** responses.

Railings

Objects that act as barriers

Lighting

People who live in the home

Geographic location

Ability to pay the rent or mortgage

There are many aspects that should be remarked on for this type of evaluation, including railings, objects that act as barriers, lighting, steps, entrances, driveways, thresholds, door width, door handles, carpeting, electrical cords, supportiveness of furniture, safe storage, working smoke detectors, fire hazards, emergency exits, and sanitation.

While a therapist should know who lives in the home and the patient's financial situation (since both of these areas can serve as a source of support), this is not directly relevant to the modification process. The home's geographic location might impact a patient's community navigation, but this also won't directly impact home modifications.

66.

An OTA must have some knowledge about common conditions in order to inform the evaluation and intervention process. Which statements about health concerns that OTs can treat are correct?

Select the three **BEST** responses.

Cerebral palsy is not progressive and will not worsen over time.

A spinal cord injury results from compression or a contusion impacting the spinal nerves.

Symptoms of post-concussion syndrome include depression, loss of balance, headache, fatigue, and irritability.

An open TBI is when a person's prognosis has not yet been determined.

There are no complications that can result from a spinal cord injury.

Post-concussion syndrome is a common occurrence that happens to nearly all TBI patients within the first year of their injury.

An open TBI refers to a brain injury that results from penetration of the skull, whereas a closed TBI occurs as a result of blunt external force or rapid acceleration/deceleration of the brain. A spinal cord injury can come along with many complications, including autonomic dysreflexia, pressure ulcers, and spasticity, if someone does not receive the right medical care. Post-concussion syndrome only occurs in the first few weeks or months after the initial event, and this happens in between 40 and 80% of individuals who experience a TBI.

The other statements are all true.

67.

Which reflex involves opposing movements between the right and left legs?

Crossed extension

Protective extension

Palmar grasp

Plantar grasp

Correct answer: Crossed extension

The crossed extension reflex is the movement into extension, adduction, and internal rotation of the left leg when the clinician completes passive flexion of the right leg, and vice versa. The initial testing position is flexion of the left leg and the right leg extended (or vice versa).

The protective extension reflex is the reflexive response that occurs when someone feels like they are losing their balance. This is intended to protect them from harm.

The palmar grasp reflex is the hand's reflexive gross flexion in response to stimulation to the palm.

The plantar grasp reflex is the foot's reflexive flexion pattern that follows stimulation, typically to the plantar surface of the foot.

68.

An OTA is collaborating with an OTR to set up a group therapy room, which will help them determine how a child socializes with peers as part of an evaluation. What type of play behaviors might an OTA expect to see from a child who has just turned 4 years old?

Symbolic play, where children use play to formulate feelings and ideas

Exploratory play, where kids engage in experiences that help develop their body scheme

Creative play, which involves combining actions to engage with multiple objects

Correct answer: Symbolic play where children use play to formulate feelings and ideas

Symbolic play is typical for kids between the ages of 2 and 4. Children use objects that are more manageable for them.

Exploratory play is the norm for kids ages 0-2, since this involves incorporating sensory integration and motor skills. Creative play is expected for kids ages 4-7, since this involves a higher level of sensory, cognitive, motor, and social function.

69.

What is a category of strokes characterized by brain bleeds with symptoms that do not resolve quickly?

Cerebral hemorrhage

Aneurysm

Cerebral infarction

Transient ischemic attack (TIA)

Correct answer: Cerebral hemorrhage

A cerebral hemorrhage is bleeding in the brain caused by high blood pressure or an aneurysm. While aneurysms and cerebral hemorrhages present similarly, an aneurysm is known as a cause of cerebral hemorrhage. This is because an aneurysm is a more general term that can occur in several places in the body.

A cerebral infarction is a blockage in the artery that is caused by a blood clot (thrombosis or embolism). A transient ischemic attack (TIA) is often considered a "mini stroke" as an individual initially presents with stroke symptoms, but they resolve within 24 hours.

70.

Which of the following is **NOT** characteristic of osteoarthritis?

Flows through exacerbations followed by remission

Caused by general daily wear

Often occurs in large joints

Cartilage breakdown

Correct answer: Flows through exacerbations followed by remission

Osteoarthritis does not flow through periods of exacerbations and remission; that is a trait of rheumatoid arthritis.

Osteoarthritis is caused by continued and general daily wear on joints and resulting cartilage breakdown. It often occurs in larger joints such as the hip or knee.

71.

After a CVA, a patient is unable to verbally express their needs, thoughts, etc. What is this impairment called?

Broca's aphasia

Wernicke's aphasia

Global aphasia

Anomia

Correct answer: Broca's aphasia

Broca's aphasia (expressive) describes an inability to verbally express oneself.

Wernicke's aphasia (receptive) is the decreased comprehension of verbal language. Global aphasia is a combination of Broca's and Wernicke's aphasia, including decreased verbal expression and comprehension. Anomia is characterized by the inability to recall and verbalize commonly recognized objects, people, etc.

72.

Motor learning has many principles that govern the types of tasks and feedback required for learning. One of these is an open task.

What is an example of an open task?

Riding a bike

Cooking

Putting on a shirt

Brushing teeth

Correct answer: Riding a bike

Open tasks are characterized by the variable environment in which the tasks are completed. Riding a bike outside is a task completed in an environment with little control from the individual, as cars and hazards may come up randomly.

The other options are tasks that are typically completed in more familiar and predictable environments.

73.

What is the name of the innermost layer that covers the brain?

Pia mater

Dura mater

Arachnoid membrane

Subarachnoid space

Correct answer: Pia mater

The pia mater is the innermost layer that covers the brain and houses blood vessels.

The dura mater is the thick, outermost layer connected to the skull. The arachnoid is the delicate middle layer that houses blood vessels. The subarachnoid space is the area sandwiched between the pia mater and the arachnoid membrane.

74.

Which structure within the neuron receives information?

Dendrite

Axon

Synapse

Neurotransmitter

Correct answer: Dendrite

Dendrites are attached to the cell body and are responsible for receiving information through the synapse connection.

The axon is a long extension that sends information away from the cell body. A synapse is the connection between the end of the axon and the dendrites where information is passed from one neuron to another. A neurotransmitter transports the information sent by the axon to the dendrite.

75.

What is a benefit of superficial heat as a therapeutic modality?

Decreases muscle spasms

Decreases tissue extensibility

Slows wound healing

Correct answer: Decreases muscle spasms

Superficial heat modalities are known to relieve pain, increase tissue extensibility, assist with wound healing, and decrease muscle spasms.

76.

Which of the following muscles is intrinsic and innervated by the ulnar nerve?

Palmar interossei

Flexor digitorum superficialis

Flexor pollicis longus

Abductor pollicis brevis

Correct answer: Palmar interossei

The palmar interossei are intrinsic hand muscles innervated by the ulnar nerve.

The flexor digitorum superficialis and the flexor pollicis longus are extrinsic muscles of the hand innervated by the median nerve, and the abductor pollicis brevis is an intrinsic muscle of the hand innervated by the median nerve.

77.

If an OTA is assisting an OTR in completing an evaluation for assistive technology, what might be included?

Select the three **BEST** responses.

Client factors

Performance skills

Cognition

Social participation

Enrollment in academic institutions

Ability to work

Therapists should determine what client factors and performance skills are present, since these might impact the devices a therapist recommends and a patient's ability to use them. Cognition also plays a part in a patient's ability to correctly and safely use devices, so this should also be part of the evaluation.

Each patient's needs will vary, so social participation, academic institutions, and a patient's ability to work will not necessarily be part of every evaluation.

78.

According to the principles of motor learning, what is an example of a serial task?

Completing a transfer

Riding a bike

Fishing

Cooking

Correct answer: Completing a transfer

Serial tasks are characterized by a sequence of movement patterns that in their entirety complete the task. Completing a transfer involves the sequence of pushing up out of a chair, turning toward the new seat, and returning to sitting.

The other options do not involve a predictable sequence of movement patterns that completes the tasks consistently.

79.

Which hand deformity is caused by ulnar nerve injury and results in the inability to extend the IP joints in the 4th and 5th fingers?

Claw hand

Benediction sign

Ape hand deformity

Wrist drop

Correct answer: Claw hand

Claw hand is caused by an ulnar nerve injury and is characterized by the inability to extend the 4th and 5th digits at the PIP and DIP levels.

The benediction sign is caused by a median nerve injury at a proximal origination resulting in the inability to flex the 2nd and 3rd digits at the MP joint when attempting to make a fist.

Ape hand deformity is characterized by IP flexion in the digits and atrophy of the thenar eminence and is caused by a median nerve injury.

Wrist drop is characterized by inability to extend the wrist and is caused by a radial nerve injury.

80.

What is the normal range of motion for shoulder flexion?

0-180 degrees

0-190 degrees

0-150 degrees

0-90 degrees

Correct answer: 0-180 degrees

Typically, shoulder flexion range of motion is 0 degrees to 180 degrees. The other options would indicate shoulder flexion with some level of impairment or restriction.

81.

What are the main areas that an OTA should focus on when helping an OTR complete a mental health evaluation?

Select the three **BEST** responses.

Cognition

Perceptual skills

Psychosocial functioning (strengths and deficits)

Surgical history

Self-care abilities

Reflexes

Cognition, perception, and overall psychosocial functioning will be the main parts of a mental health evaluation.

An OTA might mention a patient's surgical history, but it will not usually be a major/primary aspect of the evaluation. Self-care abilities will be addressed, usually through a combination of functional observation and self-report, but this is again not the main part of the evaluation. Reflexes are also not part of a mental health evaluation.

82.

What is an advantage to bed mobility training?

Select the three **BEST** responses.

Decreasing the risk of pressure ulcers

Offering variations in motion

Limiting the impact of reflexes on function

Allowing more social function

Encouraging more alertness

Giving patients the option to go to bed when they please

Bed mobility training (positioning such as rolling, sidelying, sitting, supine, and bridging) offers patients the ability to maintain joint alignment, assume various postures, improve their motion, stretch muscles to prevent contractures, improve comfort, and decrease the risk of ulcers.

Bed mobility does not necessarily promote social function or encourage alertness. This also does not necessarily allow patients to go to bed when they please, rather it allows them to be more independent when making adjustments in bed.

83.

What principle should therapists use to guide sessions aimed at improving coordination?

Begin with gross motor activities and grade up to fine motor activities

Begin with fine motor activities and grade up to gross motor activities

Focus on accuracy, but not speed

Address slow, gross movements only

Correct answer: Begin with gross motor activities and grade up to fine motor activities

Therapists should begin with gross motor activities, which are a bit easier, and then work their way up to fine motor activities once patients improve.

Starting with fine motor activities is not recommended, as this will likely be more difficult.

Therapists should focus on both accuracy and speed when addressing coordination.

Therapists should address slow gross movements first, but not just this. They should then work their way up to faster and more precise movements.

84.

An occupational therapy referral notes a tear in the rotator cuff, specifically in the supraspinatus. Which functional movement will likely be limited?

Abduction

Internal rotation

External rotation

Extension

Correct answer: Abduction

The muscles of the rotator cuff include the subscapularis, infraspinatus, supraspinatus, and teres minor. The supraspinatus assists with shoulder abduction and flexion.

The subscapularis helps with internal rotation. The infraspinatus and teres minor perform external rotation. The muscles of the rotator cuff are not involved with shoulder extension.

85.

What activities are considered to have a MET level less than 3?

Select the three **BEST** responses.

Toileting

Stretching

Washing dishes

Walking

Making a bed

Sweeping

Toileting, stretching, and washing dishes all fall under the category of 1.5 to 3 METs.

Walking, making a bed, and sweeping are considered to be in the 3 to 6 METs category.

86.

Which burn appears as white, waxy, and leathery?

Full-thickness burn

Superficial burn

Superficial partial-thickness burn

Deep partial-thickness burn

Correct answer: Full-thickness burn

A full-thickness burn, or third-degree burn, affects the epidermis, dermis, hair follicles, sweat glands, and nerve endings. This burn requires extensive time to heal and is characterized by a white, waxy, and leathery appearance.

A superficial burn, or first degree burn, affects the epidermis and heals in 3 to 7 days. The affected area may be slightly painful but will show minimal swelling.

A superficial partial-thickness burn is a second degree burn that affects the epidermis and the superficial dermis. This burn heals in 1 to 3 weeks and is characterized by increased pain compared to a superficial burn, as well as redness and blisters.

A deep partial-thickness burn is a second degree burn that affects the epidermis and a greater level of dermis (and thus hair follicles and sweat glands). The skin presents as mottled red and white. No blistering is present and the skin has a smoother texture. This burn heals in 3 to 4 weeks. This may affect sensation and places someone at a greater risk for infection.

87.

Which patient demographic is at highest risk of stroke?

An 85-year-old male with hypertension and diabetes mellitus

A 45-year-old female with a history of stroke

An 85-year-old female with hypertension and diabetes mellitus

A 50-year-old male with a traumatic brain injury

Correct answer: An 85-year-old male with hypertension and diabetes mellitus

This patient is of an advanced age, male, and has two conditions that place him at an increased risk for stroke (hypertension and diabetes mellitus). He has the most risk factors for stroke when compared to the other options.

The other individuals do not present with more risk factors as compared to this elderly male.

88.

What type of pain often results from work injuries?

Low back pain

Myofascial pain

Carpal tunnel syndrome

Acute pain

Correct answer: Low back pain

Low back pain often results from work injuries and may be caused by lifting heavier objects using the back rather than the legs. Low back pain can also result from inadequate postural support or positioning when sitting, standing, or lying down.

Myofascial pain syndrome is characterized by soft tissue pain (not joint pain) that is ongoing. Carpal tunnel syndrome can be caused by a job, but it typically develops as a result of repetitive or vibrational work over time and not one injury. Acute pain starts suddenly and recently and lasts for a short period of time.

89.

Which peripheral nerve injury is characterized by sensory changes along the ulnar nerve pathway, as well as elbow pain and a weak grasp?

Cubital tunnel syndrome

Radial nerve palsy

Carpal tunnel syndrome

Pronator teres syndrome

Correct answer: Cubital tunnel syndrome

Cubital tunnel syndrome is caused by compression of the ulnar nerve in the elbow and is characterized by sensory changes along the ulnar nerve pathway, elbow pain at full range, and a weak grasp.

Radial nerve palsy is caused by compression of the radial nerve, resulting in decreased ability to perform wrist extension (wrist drop) or thumb and MP extension.

Carpal tunnel syndrome is caused by compression of the median nerve at the wrist and is characterized by sensory changes in the 1st-4th digits.

Pronator teres syndrome is caused by compression of the median nerve within the pronator teres (in the forearm) and is characterized by sensory changes in the 1st-4th digits as well as pain in the forearm.

90.

What is the specific location of injury for lateral and medial epicondylitis?

Injury at the tendon origin due to repetitive use

Injury at the tendon insertion due to repetitive use

Ulnar nerve compression at the wrist

Median nerve compression at the wrist

Correct answer: Injury at the tendon origin due to repetitive use

Medial and lateral epicondylitis are a result of injury and therefore deterioration at the tendon's origin, not at the site of insertion. Lateral epicondylitis is caused by repetitive wrist extension, and medial epicondylitis is caused by repetitive wrist flexion.

Ulnar nerve compression and median nerve compression at the wrist cause Guyon's canal and carpal tunnel syndrome, respectively.

91.

Which hand deformity is characterized by a flattened thenar eminence and difficulty abducting the thumb?

Ape hand deformity

Claw hand deformity

Wrist drop

Benediction sign

Correct answer: Ape hand deformity

Ape hand deformity is characterized by IP flexion in the digits as well as atrophy of the thenar eminence (resulting in diminished ability to abduct and use the thumb) and is caused by a median nerve injury.

Claw hand is caused by an ulnar nerve injury and is characterized by the inability to extend the 4th and 5th digits at the PIP and DIP levels.

Wrist drop is characterized by inability to extend the wrist and is caused by a radial nerve injury.

The benediction sign is caused by a median nerve injury at a proximal origination resulting in the inability to flex the 2nd and 3rd digits at the MP joint when attempting to make a fist.

92.

Which type of amputation is one that removes the elbow but keeps part of the humerus and the shoulder joint intact?

Transhumeral amputation

Forequarter amputation

Transradial long

Elbow disarticulation

Correct answer: Transhumeral amputation

An above-elbow amputation takes any amount of the humerus and the elbow; it is known as a transhumeral amputation.

A forequarter amputation includes the entire arm as well as the clavicle and scapula.

A transradial long amputation involves removing part of the ulna and radius and leaving the elbow joint intact.

Elbow disarticulation removes up to the elbow joint.

93.

Which lobe of the brain is primarily responsible for processing sensory information?

Parietal lobe

Frontal lobe

Occipital lobe

Temporal lobe

Correct answer: Parietal lobe

The parietal lobe is responsible for processing sensory information.

The frontal lobe is responsible for executive functions, such as attention. The occipital lobe primarily carries out visual functions. The temporal lobe primarily carries out auditory functions.

94.

What is considered a contraindication for cryotherapy?

Sensory deficits

Impaired speech

Low vision

Correct answer: Sensory deficits

Patients with sensory deficits, Raynaud's disease, and impaired circulation should not use cryotherapy, including ice packs and cold massage. Patients who have impaired speech or low vision can receive cryotherapy if they have deficits that warrant the use of such modalities.

95.

After a stroke, a patient presents with an impaired arm. The digit extensors on that arm can move through the full arc of motion but only with the hand positioned on its side. What is the appropriate muscle grade?

2

3

1

0

Correct answer: 2

A grade of 2 is given to muscles that can complete the entire required motion but only when gravity is eliminated.

- **Grade 0:** demonstrates flaccidity and no strength
 - **Grade 1:** demonstrates muscle tension but no movement during range of motion attempts
 - **Grade 2:** demonstrates full range of motion only in a gravity-eliminated position
 - **Grade 3:** muscle breaks immediately with force and completes full range of motion
 - **Grade 4:** maintains testing position with moderate force and also completes full range of motion
 - **Grade 5:** maintains testing position with full force and also completes full range of motion
-

96.

What is the method for assessing burn wound size?

Rule of nines

Rule of thirds

Square foot percentage

Surface area squared

Correct answer: Rule of nines

Burn wound size is assessed via the rule of nines, which divides the body into sections. Each arm comprises 9%, the head is 9%, the legs are 18% each, the trunk is 36%, and the genital region is 1%.

97.

The style of a specific task plays a major part in determining the ability to learn a motor skill. Which is an example of a closed task?

Giving yourself a manicure

Fishing

Playing soccer

Riding a bike

Correct answer: Giving yourself a manicure

Closed tasks are completed in familiar environments that have minimal variability. Painting nails at home is a task completed in a familiar and consistent environment.

The other options are all tasks completed in environments subject to change.

98.

Knowledge of medical terminology is necessary for competency in reading and writing medical documents. Which of the following root words refers to something that is stiff or bent?

Ankyl/o

Spondyl/o

Gangli/o

Arthr/o

Correct answer: Ankyl/o

"Ankyl/o" refers to something that is crooked or stiff. An example is the form of arthritis called ankylosing spondylitis.

"Spondyl/o" refers to something of the vertebrae. An example is Spondylosis of the Lumbar Spine, which causes degeneration and pain in the spinal column.

"Gangli/o" refers to something that is knotted, or a ganglion. An example is a Ganglion Cyst, which is a fluid-filled sac that develops on the tendon.

"Arthr/o" refers to something that is of the joint. An example is Arthrogryposis, an orthopedic condition that causes multiple joint contractures.

99.

A patient presents with severe aphasia of expressive language as well as loss in comprehension of the spoken word. What is this impairment called?

Global aphasia

Wernicke's aphasia

Broca's aphasia

Anomia

Correct answer: Global aphasia

Global aphasia is a combination of Broca's and Wernicke's aphasia, including impaired verbal expression and comprehension.

Wernicke's aphasia (receptive) is the decreased comprehension of verbal language. Broca's aphasia (expressive) describes an inability to verbally express oneself. Anomia is characterized by the inability to recall and verbalize commonly recognized objects, people, etc.

100.

After undergoing a traumatic brain injury, a patient is no longer able to write in his native language. What is this impairment called?

Agraphia

Anosognosia

Asomatognosia

Astereognosis

Correct answer: Agraphia

Agraphia is the inability to write a familiar language following an injury.

Anosognosia is described when an individual does not realize and/or recognize that they have a significant motor impairment. Asomatognosia is characterized by an individual's inability to recognize that the impaired limb belongs to their body.

Astereognosis is described as the inability to identify commonly recognized objects by touch without utilizing vision.
