

Practice Exam Kit for the MBLEx

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Your Test Statistics

Test Mode	Test
Number of Questions	101
Number Correct	67
Number Incorrect	34
Number Not Answered	0
Date/Time Started	Feb 7, 2017 8:45 (PST)
Date/Time Finished	Feb 7, 2017 9:18 (PST)
Time Logged	1:20:06
Score	66%

Statistics by Section

#	Section	Questions	Correct	Incorrect	Unanswered	Score
1	Anatomy and Physiology	18	13	5	0	72%
2	Client Assessment	9	6	3	0	67%
3	Ethics, Boundaries, Rules and Regulations	7	6	1	0	86%
4	Guidelines for Professional Practice	6	5	1	0	83%
5	Kinesiology	8	4	4	0	50%
6	Massage History and Culture	8	4	4	0	50%
7	Miscellaneous Scenarios	19	14	5	0	74%
8	Pathology and Contraindications	16	6	10	0	38%
9	Physiological Effects of Massage	10	9	1	0	90%
Total:		101	67	34	0	66%

Test Preferences for this Test

Test Preference	Your Setting
Test Sections	ALL Sections - TestSIM
Prompts & Explanations	Off - TestSIM
Test Notes	Off - TestSIM

Question Order	Random - TestSIM
# of Questions	101 Questions
Time Limit	1 Hour, 50 Minutes

Your results for this test follow:

1. What do the terms systole and diastole refer to?

- a. Kidney process
- b. Breathing cycle
- c. Heart beat
- d. Immune function

Explanation: Systole and diastole refer to the contraction (systole) and relaxation (diastole) phase of a heart beat.

2. What is another term for kinesthesia?

- a. Proprioception
- b. Pain
- c. Mechanoreceptors
- d. Tetanus

Explanation: Kinesthesia is another term for proprioception, or the ability of a person to perceive their own movement.

3. Which of the following anatomical directional references is not matched correctly?

- a. Medial - toward the midline of the body
- b. Distal - toward an attached base structure
- c. Ventral - toward the front or belly side
- d. Dorsal - on the posterior or back side

Explanation: All directional terms use the anatomical position as the standard point of reference. The term "distal" refers to a structure that is located away from a base structure - for example, the hand is distal to the elbow.

4. What is another name for the alimentary canal?

- a. Ear canal
- b. Digestive tract
- c. Hepatic portal vein
- d. Nasal cavity

Explanation: The alimentary canal is the passageway from the mouth, pharynx, esophagus, stomach, small intestine, large intestine and ends at the anus. This canal is also the digestive tract.

5. Which of the four quad muscles is the largest in size?

- a. Rectus femoris
- b. Vastus lateralis
- c. Vastus intermedius
- d. Vast medialis

Explanation: The vastus lateralis is the largest quadriceps muscle with its origin starting superiorly to the intertrochanteric line and inserting into the lateral border of the patella.

6. Which of the following is not part of the small intestine?

- a. Duodenum
- b. Jejunum
- c. Sigmoid
- d. Ilium

Explanation: The sigmoid colon is part of the large intestine that is closest to the anus.

7. Which of the following muscles are a part of the hamstrings?

- a. Rectus femoris
- b. Biceps femoris
- c. Gracilis
- d. Soleus

Explanation: The hamstrings are the muscle group of the posterior thigh and include the biceps femoris, semitendinosus and the semimembranosus. The hamstrings cross over and act upon both the hip and knee joints.

8. Lateral epicondylitis affects the outside of the knee joint.

- a. True
- b. False

Explanation: Lateral epicondylitis is the technical term for tennis elbow.

9. Where would you locate stratum lucidum?

- heart
- muscle
- skin
- bone

Explanation: Stratum lucidum is a translucent buildup of two to three layers of dead skin cells typically found on the palms of the hands or the soles of the feet. Stratum lucidum is located between the deeper stratum granulosum and the more superficial stratum corneum layers of skin. The thickness of stratum layers of cells is governed by the rate of mitosis (cellular division.)

10. Which muscle attaches to the acromion process?

- a. Trapezius
- b. Pec minor
- c. Short head of the biceps brachii
- d. Supraspinatus

Explanation: The acromion process is located at the top of the shoulder and articulates with the lateral end of the clavicle. It is the fibers of the middle trapezius that insert into the medial margin of the acromion process.

11. What does a sulcus refer to?

- a. A passage or canal
- b. The meeting point where bones are joined together
- c. A narrow groove
- d. A knob like process

Explanation: A sulcus is a general term to describe a narrow groove. There are many places on the body where a sulcus can be found. A few examples are the gluteal sulcus, radial sulcus or the gingival sulcus between the gums and teeth.

12. Which heart valve is the mitral valve?

- a. Tricuspid
- b. Bicuspid
- c. Pulmonary semilunar
- d. Aortic semilunar

Explanation: The mitral valve is also known as the bicuspid, which controls blood flow between the opening of the left atrium into the left ventricle.

13. Which cells are responsible for generating the electrical impulses that control heart rate?

- a. Myocytes
- b. Glial
- c. Epithelial
- d. Merkel

Explanation: There are various forms of myocytes in the body, but it is the cardiac myocytes that are responsible for generating the electrical impulses that control heart rate.

14. How many types of Schwann cells exist in the human body?

- a. 1
- b. 2
- c. 3
- d. 4

Explanation: There are two types: myelinating and nonmyelating. Myelinating Schwann cells wrap around axons of motor and sensory neurons to form the myelin sheath, which acts to protect and support nerve functioning. Non-myelinating Schwann cells are involved with maintaining the health and vitality of the axon or nerve fiber.

15. The structure that connects the liver to the gall bladder is the:

- a. Hepatic portal vein
- ✓ b. Hepatic duct
- c. Bile duct
- d. The liver is not connected to the gall bladder

Explanation: The hepatic duct transports bile secreted in the liver into the gall bladder. The gall bladder stores and concentrates bile. The bile duct releases bile from the gall bladder into the small intestine.

16. _____ are the smallest blood vessels.

- a. Arteries
- b. Venules
- ✓ c. Capillaries
- d. Arterioles

Explanation: Capillaries are the smallest blood vessels with endothelial linings that are only one cell thick. This allows for the transfer of water, oxygen, carbon dioxide, nutrients and waste between the blood and surrounding tissues.

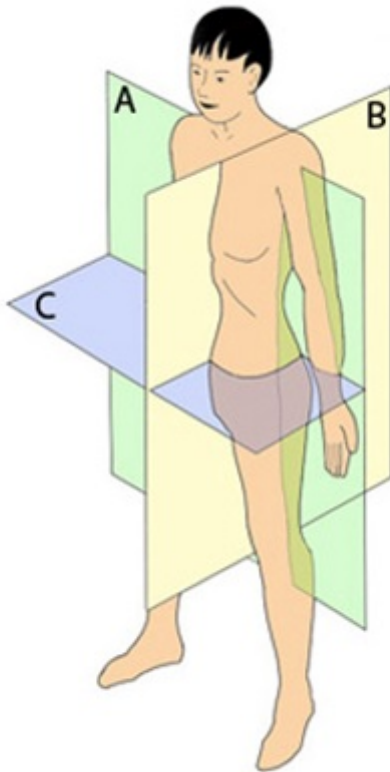
17. Oxygen, carbon, hydrogen and _____ make up the four majority elements in the human body.

- a. calcium
- b. sodium
- c. potassium
- ✓ d. nitrogen

Explanation: Elements are pure substances that are composed of a single type of atom. The fourth element missing from this statement is nitrogen, which is a key component of the amino acid chains that comprise proteins. Nitrogen is also found in the DNA and RNA of our gene codes.

18. What type of anatomical section does plane B depict?

- ✓ a. Sagittal
- b. Coronal
- c. Cross
- d. Surgical



Reference : Clinically Oriented Anatomy - Moore

Explanation: Anatomical structures can be sectioned in various planes. The sagittal section divides structures along a vertical (superior to inferior) axis.

19. Which of the following muscles inserts into the galea aponeurotica?

- a. Rectus abdominus
- b. Serratus posterior
- c. Gastrocnemius via achilles tendon
- ✓ d. Occipitofrontalis

Explanation: The galea aponeurotica is the layer of dense fibrous tissue that extends across the superior cranium and connects the occipitals to the frontalis muscles creating the unified occipitofrontalis muscle group.

20. Condylod and saddle joints are examples of _____ joints.

- a. multiaxial
- ✓ b. biaxial
- c. uniaxial
- d. triaxial

Explanation: Condylod and saddle joints allow for movement in two different planes along two axes of the body. This is known as a biaxial joint.

21. The sternocleidomastoid action of flexion of the neck is an example of _____ contraction.

- a. a concentric
- b. an eccentric
- c. an isometric
- d. an auxotonic

Explanation: A concentric contraction is one where the muscle shortens under force. Flexion of the neck is the concentric contraction and natural action of the sternocleidomastoid.

22. A reverse Trendelenburg position is where the client's feet are above their head while in a supine position.

- a. True
- b. False

Explanation: A reverse Trendelenburg position is where the head is slightly above the feet while lying down. The statement in the question indicates a true Trendelenburg positioning. Therapeutic Practice

23. Which muscle is responsible for establishing an upright or erect position when standing still?

- a. Abdominals
- b. Gluteus maximus
- c. Rectus femoris
- d. Tensor fascia latae

Explanation: The gluteus maximus is the largest, most superficial and strongest of the three gluteal muscles which aids in the function of maintaining an erect posture.

24. Which of the following structures support the body while in the sitting position?

- a. Coccyx
- b. Sacrum
- c. Femur
- d. Ischial tuberosity

Explanation: The ischial tuberosity has a nickname, sitz bone, which means a pair of sitting bones. The gluteal muscles cover the ischial tuberosity while upright but move out of the way to expose it during sitting.

25. Which of the following muscles adduct the hip?

- a. Longissimus
- b. Pectineus
- c. Sartorius
- d. Tensor fascia latae

Explanation: There are five hip adductors that include the adductors longus, brevis and magnus as well as the gracilis and the correct answer for the question, the pectineus.

26. Which muscle is a synergist to lateral rotation of the hip?

- a. Gemellus inferior
- b. Pectinius
- c. Adductor magnus
- d. Tensor fascia latae

Explanation: Gemellus inferior, one of the seven deep lateral rotators of the hip, is a synergist of lateral rotation of the hip.

27. Angioedema is a condition that affects which body system?

- a. Respiratory
- b. Integumentary
- c. Circulatory
- d. Reproductive

Explanation: Angioedema is the rapid swelling (edema) of the dermis, subcutaneous tissue, mucosa and submucosal tissues. The condition is similar to hives but the swelling is under the skin rather than on the surface.

28. Which of the following is designated by a loss of bone marrow mass which is replaced with fibrous or vascular tissue?

- a. Perthes disease
- b. Paget's disease
- c. Dermatophytosis
- d. Osteonecrosis

Explanation: Paget's disease is a painful deterioration of bone in elderly people. The bone tissue is replaced with fibrous or vascular tissue. People with Paget's are prone to fractures and arthritis as well as painful, misshapen bone structures.

29. Tinea pedis is the technical term for _____.

- a. ringworm
- b. jock itch
- c. athlete's foot
- d. sun spots

Explanation: Tinea pedis is a fungal infection of the foot and the common name for this is athlete's foot.

30. What is the term to describe the spread of cancer from one area of the body to another?

- a. Chemotaxis
- b. Metastasis
- c. Pinocytosis
- d. Anastalsis

Explanation: A cancer that has spread from one area of the body to another has metastasized and is in a state of metastasis.

31. What is occurring when vasodilation increases the permeability of small vessels and fluid leaks into surrounding tissue?

- a. Anoxia
- b. Chemotaxis
- c. Edema
- d. Hyperplasia

Explanation: Edema is an abnormal accumulation of fluid that causes swelling. The locations can vary from beneath the skin or in one or more cavities of the body. There are many causes and types of edema but a common form is cutaneous edema which is also known as pitting edema, a condition which occurs when pressure is applied to a small area of skin and an indentation persists for some time after the release of pressure. Deep pressure massage is contraindicated with edema.

32. A client suffered a traumatic injury which resulted in a broken femur during an auto accident. What grade of injury would be applied to the client?

- a. Grade 1
- b. Grade 2
- c. Grade 3
- d. Grade 4

Explanation: An auto accident with enough force to break a bone would indicate a Grade 4 injury. This is considered an acute condition which can last from several hours to several months and should resolve when the initial injury is treated and stabilized.

33. Thomsen disease affects which body system?

- a. Muscular
- b. Skeletal
- c. Digestive
- d. Integumentary

Explanation: Thomsen disease is also known as myotonia congenita, a hereditary disease that affects muscle tone and the ability to release tension after a contraction. This disease can increase muscle strength and size.

34. Epistaxis is the technical term for _____.

- a. eye infection
- b. diarrhea
- c. ear wax
- d. nose bleed

Explanation: An epistaxis condition is a hemorrhaging from the nose, or a nose bleed.

35. Adenitis is an inflammation to which body structure?

- a. Heart
- b. Lymph nodes
- c. Lungs
- d. Kidneys

Explanation: Adenitis is a general term used to describe an inflammation of lymph glands. Cervical adenitis is an inflammation of lymph glands located in the neck region.

36. Which would you expect to see on a person with jaundice?

- a. Redness of the skin
- b. A bluish skin tint
- c. A yellowing of the skin
- d. Scaly, dry skin

Explanation: Jaundice comes from the French word jaune, which means yellow. Increased levels of bilirubin in the blood is what causes the yellow discoloration of skin.

37. What would be expected of a client that presents with pediculosis?

- a. Athletes foot
- b. Lice
- c. Bad breath
- d. Impaired vision

Explanation: Pediculosis is an infestation of lice, the wingless insect that feeds on dead skin, sebaceous secretions and blood. There are three classifications of pediculosis, divided by the section of the body they infect. Pediculosis capitis is for head lice, pediculosis corporis is for body lice (aka vagabond's disease) and pediculosis pubis is for pubic lice (aka crabs).

38. Bradykinin has multiple roles in the function of our bodies. Which of the following is NOT a characteristic of bradykinin?

- a. Decreases blood pressure
- b. Involved in pain mechanism
- c. Dilates blood vessels
- d. Raises blood pressure

Explanation: Bradykinin is a peptide (amino acid chain) that acts like a histamine in that it causes arterior dilation. This will effectively lower blood pressure NOT raise it. The lifecycle of Bradykinin is extended by a class of drugs called ACE (angiotensin-converting) inhibitors (used to treat hypertension) which allows for a greater accumulation within the body. Bradykinin then attaches to pain receptors within the body which increases pain messages to the central nervous system. This is why a client on ACE inhibitors may demonstrate a lower pain tolerance.

39. Pathogenesis is the study of the _____ of a disease.

- a. effects
- b. origin
- c. cure
- d. morbidity

Explanation: Pathogenesis is the study of the origin and development of a disease. The Greek words pathos (disease) and genesis (creation) are combined.

40. _____ is a condition where bones become porous, fragile and brittle.

- a. Hypocalcemia
- b. Malnutrition
- c. Osteophytes
- d. Osteoporosis

Explanation: From its Greek derivation, osteoporosis literally means abnormal bone pores. (Greek translation: osteon means bone, poros means pore, and the suffix osis means a disorder or abnormal state). Osteoporosis is a contraindication for deep bodywork that can affect or damage the fragile and brittle bones of a client who suffers from this condition.

41. Which of the following is an anti-inflammatory drug?

- a. Diuretics
- b. NSAIDs
- c. Statins
- d. Anticoagulants

Explanation: NSAIDs, or non-steroidal anti-inflammatory drugs, are an unusual analgesic or pain reducers in that they are non-narcotic. The most prominent NSAID analgesics are aspirin, ibuprofen and naproxen which can be purchased over-the-counter at local drug stores.

42. What is the best technique for working the axilla?

- a. Deep tissue
- b. Trigger point
- c. Compression
- d. No technique

Explanation: The axilla is the armpit. A sensitive area that is full of lymph nodes, nerves, arteries and veins.

43. Which of the following choices best describes the function of P, in the acronym S.O.A.P.?

- a. Future visits
- b. Evaluation
- c. Summary of findings
- d. Initial complaint

Explanation: The P is for plan, which details what the next step is for the client. The plan could suggest stretch and exercise options, whether there should be additional care with a doctor or determine future visits with the practitioner.

44. Which of the following is typical of an acute injury?

- a. Scar tissue
- b. Keloids
- c. Inflammation
- d. Depression

Explanation: All of the other options would indicate a chronic or later stage of an injury/dysfunction. During an acute injury, inflammation would be most evident.

45. What condition is Phalen's test used to assess?

- a. Thoracic outlet syndrome
- b. Piriformis syndrome
- c. Radial tunnel syndrome
- d. Carpal tunnel syndrome

Explanation: The Phalen's test requires the client to firmly press the backs of the hands together for a duration up to a minute. If the client experiences pain, tingling or numbness in the thumb, index, middle and lateral half of the ring finger along the palmar side, then the test is positive for a carpal tunnel compression. The test can be done in reverse with palms pressed firmly together.

46. A client is complaining of tension headaches focused along the temporal region. What should the massage therapist instruct the client to do to help locate and palpate the temporalis muscle?

- a. Client clench and relax their jaw
- b. Client open mouth and relax their jaw
- c. Pinch closed and open eyes
- d. Rotate head from side to side

Explanation: The temporalis muscle has one action and that is to clench the jaw during mastication. The best way to locate and palpate the temporalis muscle is to instruct the client to clench and release their jaw while the therapist feels for the origin and insertion of muscle fibers along the temporal bone.

47. Bones, ligaments, blood vessels and nerves are known as _____.

- a. contractile tissues
- b. inert tissues
- c. soft tissues
- d. hard tissues

Explanation: Inert tissues are those that are not contractile such as bone, bursa, blood vessels, cartilage, fat, ligaments, nerves and nerve coverings.

48. A crackling, grating or popping sound from joints is referred to as _____.

- a. air bubbles
- b. a soft tissue barrier
- c. crepitus
- d. a degenerative disease

Explanation: Crepitus is a crackling, grating or popping sound from joints or other subcutaneous tissue.

49. What does the Arndt-Schultz Law pertain to?

- a. Acute and chronic injuries
- b. Dry and moist skin types
- c. Flexibility and tension patterns
- d. Pressure related physiological processes

Explanation: The Arndt-Schultz Law states that a weak stimulus will have no effect on a physiological process, that an intermediate stimulus will promote a physiological process whereas a strong stimulus will inhibit a physiological process.

50. What are the ideal times to perform an assessment of the client to understand problem areas and the effectiveness of treatment?

- a. Before the treatment
- b. After the treatment
- c. During the treatment
- d. All of the above
- e. A and b only

Explanation: Before starting treatment with a client, a massage therapist must first understand what the nature of the client's complaint is, whether the condition is indicated or contraindicated or if a referral is necessary. Once the therapy session is complete, an assessment is necessary to determine the benefit of the treatment to the client.

51. Quick, shallow breaths are an indication of forced inhalation. Which of the following muscles would be hypertonic from an improper breathing pattern?

- a. Rhomboids
- b. Scalenes
- c. Abdominals
- d. Diaphragm

Explanation: Scalene muscles are typically reposed during normal respiration and only come into action during heavy exertion or forced inhalation. However, in a faulty breathing pattern, the scalene (along with the upper trapezius, levator scapulae, SCMS and pec minor) become primary breathing muscles and are active with each inspiration. This additional stress leads to the development of trigger points within these muscles. Assisting the client to correct their breathing pattern is as essential to rehabilitation as is releasing the hypertonic muscles.

52. Stress hormones are released by the _____.

- a. golgi tendon organ
- b. parasympathetic nervous system
- c. sympathetic nervous system
- d. muscle belly

Explanation: The sympathetic nervous system is responsible for the release of stress hormones.

53. Massage creates the pleasure and feel-good response by stimulating the release of which neuroendocrine chemical?

- a. Serotonin
- b. Dopamine
- c. Epinephrine
- d. Cortisol

Explanation: Dopamine is the neuroendocrine chemical responsible for many processes within the body including muscle movement, emotion, motivation, joy, pleasure and satisfaction. When a massage therapist is able to create a satisfactory massage experience for a client, the massage therapist helps release dopamine and, in effect, create a feel-good response.

54. What is the name of the phenomenon where cells within an organism are inspired to move within their environment based on the presence of certain chemicals?

- a. Chemotaxis
- b. Hypostasis
- c. Peristalsis
- d. Phagocytosis

Explanation: Chemotaxis is the movement of a cell based on the chemical makeup of its environment. Glucose can be a stimulant to attract a cell towards it or a cell can be driven away by a toxin.

55. A client is experiencing a deep trigger point in the thigh. Which of the following options is the best approach to eliminate the adhesion?

- a. Deep friction, trigger point, effleurage, petrissage
- b. Effleurage, petrissage, deep friction, effleurage
- c. Trigger point, deep compression, effleurage
- d. Petrissage, deep friction, effleurage, trigger point

Explanation: Effleurage is best to introduce the client to touch. Petrissage is best to warm and loosen superficial muscle. Deep friction massage will address the adhesion in the deeper layers of muscle. Effleurage the area to smooth over any residual tension.

56. What are neuroendocrine chemicals called when they are released into the blood?

- a. Hormones
- b. Neurotransmitters

- c. Neuropeptides
- d. Erythrocytes

Explanation: Neuroendocrine chemicals regulate physiological functions within the body. Hormone producing glands are part of the endocrine system. Massage reflexively stimulates the endocrine system to send neuroendocrine chemicals into the blood to transport messages from one area of the body to another, and in this form they are a hormone.

57. Parents of a newborn child have learned how to give infant massage. How does massage help with the bonding experience between child and parent?

- a. Release of trigger points
- b. Release of pain
- c. Release of cortisol
- d. Release of oxytocin

Explanation: A reflexive effect of massage is the release of oxytocin, a hormone responsible for feelings of attachment and nurturing and aides in the bonding experience between giver and receiver.

58. What is a positive effect of effleurage on the integumentary system?

- a. Supports healthy digestion
- b. Assists in the healing process of local skin infections
- c. Releases deep fascial adhesions
- d. Promotes healthy circulation for improved waste removal

Explanation: The soothing strokes of effleurage assists the circulation of lymph vessels within the dermal layers of the integumentary system. This process is a great benefit to removing toxins and waste.

59. When lymph fluid moves through the lymph ducts as a result of lymphatic massage, it is a/an _____ effect of massage upon the lymphatic system.

- a. reflexive
- b. mechanical
- c. indirect
- d. beneficial

Explanation: A mechanical effect is a direct effect. Therefore, lymphatic massage, which moves lymph fluid through lymph ducts, has a mechanical effect upon the lymph system.

60. What is another term for a trigger point?

- a. Muscle contraction
- b. Muscle knot
- c. Myofascial adhesion
- d. Hypotonic muscle

Explanation: A trigger point is basically a muscle knot that is often painful and irritating.

61. **Deep tissue massage is a great technique for reducing adhesions. Which of the following choices best describes adhesions?**

- a. Trigger point
- b. Energy blockage
- c. Acupressure point
- d. Scar tissue

Explanation: Adhesions are thick fibrous bands of scar tissue usually caused by injury or surgery. They can create an unnatural binding or joining of surrounding tissues which results in diminished range of motion and a loss of structural functionality.

62. _____ are the physical and emotional space between a client and a therapist that helps maintain professionalism.

- a. Ethics
- b. Boundaries
- c. Frameworks
- d. Laws

Explanation: Boundaries are integral to maintaining a healthy physical and emotional space within the therapeutic relationship.

63. _____ is the knowledge base and practice parameters of the massage profession.

- a. Therapeutic relationship
- b. Scope of practice
- c. Code of ethics
- d. Informed consent

Explanation: The knowledge base refers to education and special training/skills for providing care. The practice parameters refer to conduct and environment. These two combined explain the basic concept of the scope of practice.

64. Refusing to work on a client because of their sexual orientation is a violation of _____.

- a. scope of practice
- b. professional boundaries
- c. client dignity
- d. confidentiality

Explanation: Under the code of ethics, client dignity is associated with basic human rights. Refusing to work with someone over their sexual orientation is a violation of these rights and strips a client of their dignity.

65. The federal and state laws that govern the massage profession are the _____.

- a. professional boundaries
- b. legal boundaries

- c. HIPAA regulations
- d. OSHA regulations

Explanation: Federal and state law form the legal boundaries of the massage profession.

66. A client has asked a massage therapist to volunteer at a special event for the mentally disabled. The massage therapist would be the only massage therapist at the event. The therapist has over 10 years of experience and is well trained in massage. However, the massage therapist is uncomfortable working with people who have difficulties with communication. Which of the following is a valid explanation for declining the request in this situation?

- a. Inability to work with people who cannot communicate
- b. Lack of necessary training and skills
- c. Lack of additional support during the event
- d. Only works for money

Explanation: Communication is a very important component of the client/therapist relationship. A therapist who prefers the feedback and open communication from a client is justified to decline work if the client cannot communicate with the massage therapist.

67. Which of the following would be a possible concern for a new client?

- a. A detailed and thorough intake
- b. Low lighting in the treatment room
- c. Soft music played throughout the office
- d. Locked door for privacy

Explanation: A locked door can put the therapist at risk of being accused for entrapment of a client. If a door must be locked be sure to ask the client for permission.

68. SOAP notes are medical records that cannot be used in a court of law.

- True
- False

Explanation: All documents that are written about a client have the potential to be used as evidence in a court of law.

69. When a massage therapist is petitioning a governing body of one state to accept a massage license from another state, the therapist is seeking _____.

- a. reciprocity
- b. zoning
- c. free range
- d. open ended

Explanation: The massage therapist is seeking reciprocity, or the portability of their license from one state to another. Reciprocity is often decided on a case-by-case basis and therefore the massage therapist must contact the licensing board of each state to determine if reciprocity is accepted.

70. Keeping a clean therapeutic environment is required by law. Which of the following methods can be used to sterilize towels?

- a. UV
- b. Heat at 160 degrees
- c. Washing with soap in hot water
- d. Spraying with a disinfectant

Explanation: UV or Ultra Violet rays have three classifications: UV-A, UV-B and UV-C. It's the UV-C class which contains the DNA destroying spectrum that prevents microbes from reproducing and is responsible for sanitation.

71. On your own body, which quadrant of the abdomen would you locate your gallbladder?

- a. Upper right
- b. Upper left
- c. Lower right
- d. Lower left

Explanation: The gallbladder is located in the upper right quadrant of the abdomen nestled just below the liver. This is where a scar can be found on clients who have had their gallbladder removed.

72. Which of the following should be included in a "mission statement" with regards to establishing a massage practice?

- a. The location where a practice will be established
- b. The key market cliental
- c. The color scheme and decor
- d. How billing will be handled

Explanation: The mission statement outlines the goals and framework for the overall intention of a business. In this case, deciding who the key market cliental is will determine many factors when building a practice.

73. A massage therapist is going through emotional troubles due to difficulties with family. The therapist has decided to share their experiences with a client and the client usually responds with concern. When is it appropriate for a client to take care of a therapist's emotional needs?

- a. Always
- b. Regularly
- c. Occasionally
- d. Never

Explanation: The professional role of a massage therapist requires them to be fully present for their client's needs and not the other way around. It is the responsibility of the therapist to take care of his or her own emotional and physical needs outside the therapeutic environment.

74. Within the therapeutic relationship with a client, what is the primary focus?

- a. Developing a friendship with the client

- b. Creating a sense of community with the client
- ✓ c. The well being of the client
- d. Being the best massage therapist ever

Explanation: The goal within the therapeutic relationship is the health and well being of the client. The other answers are not aspects of the therapeutic relationship.

75. How many meridians are a part of the acupressure system?

- a. 10
- b. 12
- ✓ c. 14
- ✗ d. 16

Explanation: Acupressure is an extension of acupuncture and traditional Chinese medicinal theories. Pressing points along the 14 meridian lines relieve tension and increase circulation as well as restore the body's natural flow of chi or energy. There are 12 basic meridians which include the lung, liver, spleen, stomach, kidney, large intestine, small intestine, heart, pericardium, bladder, gallbladder and the sanjiao meridians but there are also two special meridians (that are included in the acupressure system) and they are the conception vessel and the governor vessel which gives a total of 14 meridians. However, these two common special meridians are part of a classification of 8 extraordinary meridians in TCM.

76. What does the term "Prana" mean?

- a. Consciousness
- b. Enlightenment
- c. Respect
- ✓ d. Life force

Explanation: Prana is the Sanskrit term for "life force" which embodies all elements in the universe.

77. Who authored, "The Art of Massage: A Practical Manual for the Nurse, the Student, and the Practitioner"?

- a. Ida Rolf
- b. Dr. William Fitzgerald
- c. Emil Voder
- ✓ d. John Harvey Kellogg

Explanation: John Harvey Kellogg (February 26, 1852 - December 14, 1943) was an American M.D. who taught a holistic approach to health care. He is also the man that created Kellogg's Corn Flakes.

78. Who is credited with originally teaching the importance of deep transverse friction?

- a. John Barnes
- b. Ida Rolf
- ✓ c. James Cyriax
- d. Bonnie Pruden

Explanation: British osteopath, Dr. James Cyriax taught that deep transverse friction effectively reduces fibrosis and encourages the formation of strong, pliable scar tissue at the site of healing injuries. The technique, also known as cross-fiber friction, reduces the crystalline roughness that forms between tendons and their sheaths and can also prevent or soften myofascial adhesions.

79. In TCM, which of the following organs is associated with the element of metal?

- a. Large intestine
- b. Gallbladder
- c. Small intestine
- d. Liver

Explanation: The large intestine (and lungs) is associated with the element of metal.

80. Which chakra is associated with the color orange?

- a. Crown
- b. Root
- c. Naval
- d. Sacral

Explanation: The sacral chakra located below the naval is the second chakra and is associated with the color orange.

81. Yang and yin concepts relate to the delicate balance of life. Which of the following is a yang organ?

- a. Stomach
- b. Lungs
- c. Kidney
- d. Liver

Explanation: Yang organs are typically hollow and are involved in the transport of digestive substances (except the gallbladder which stores bile and the triple burner which has no shape) which includes the stomach, small intestine, large intestine, urinary bladder, gallbladder and the triple burner.

82. Rolfing was first named _____.

- a. neuromuscular therapy
- b. polarity therapy
- c. zero balancing
- d. structural integration

Explanation: Dr. Ida P. Rolf developed and taught a system of bodywork which focused on reorganizing and aligning the structure of a human being within the field of gravity. She first referred to this system as structural integration. Over the years, the nickname rolfing eventually took place as the official term to describe her unique approach to bodywork.

You are in the gym exercising when you observe a young man sustain an injury while doing bicep curls. He sustained the injury while lowering a dumbbell from a position of elbow flexion. He appears to be in discomfort and is holding his right arm above the elbow.

- 83. The man sustained a grade II strain of his right biceps brachii. Which of the following muscles is a synergist to biceps brachii?**
- a. Triceps brachii
 - ✓ b. Coracobrachialis
 - c. Posterior deltoid
 - d. Teres minor

Explanation: Coracobrachialis flexes the shoulder along with biceps brachii. Coracobrachialis also shares an attachment to the coracoid process of the scapula with short head of biceps brachii.

- 84. Which of the following techniques would be best suited for breaking up excess scar tissue at the injury site?**
- ✓ a. Cross fiber friction
 - b. Effleurage
 - c. Petrissage
 - d. Tapotment

Explanation: cross fiber friction is ideal for breaking up scar tissue formed as a result of injury.

- 85. What is the name of the structure within a muscle cell that stores calcium for release when the fiber is stimulated to contract?**
- a. Sarcomere
 - b. Sarcoplasm
 - c. Sarcolemma
 - ✓ d. Sarcoplasmic reticulum

Explanation: The sarcoplasmic reticulum is a specialized smooth endoplasmic reticulum. It stores calcium that is released during muscular contraction.

- 86. Which type of muscle fiber is fast twitch, white, glycolytic?**
- ✓ a. Type IIB
 - ✗ b. Type IIA
 - c. Type I
 - d. Type V

Explanation: Type IIB muscle fibers are fast twitch, white, glycolytic. They produce energy by anaerobic metabolism, have few mitochondria and fatigue easily.

- 87. What name is given to the structure formed by a motor neuron and all of the skeletal muscle fibers that it innervates?**
- a. Neurolgia

- b. Motor unit
- c. Sacomere
- d. Myosin

Explanation: Motor units are formed by a single motor neuron and the skeletal muscle fibers which it connects to or innervates. The purpose of the motor unit is to transmit the signal to contract to the muscle fibers. The combined motor units within a muscle are called a motor pool.

You are offering chair massage at a charity event. Clients are receiving 10 minute massages and you have a line of clients waiting for massages.

88. Which of the following massage strokes would be best suited for chair massage?

- a. Effleurage
- b. Hacking
- c. Compression
- d. Both b and c

Explanation: Both hacking and compression can be easily and effectively performed on a fully clothed client.

89. How can a massage therapist ensure that they are following universal precautions when working at events where there may be no running water?

- a. Use disposable face cradle covers
- b. Bring disposable disinfecting wipes
- c. Use hand sanitizer between clients
- d. All of the above

Explanation: All of the above are effective ways of observing universal precautions when working at field events.

90. When filing your tax returns, which form would you use to claim for expenses that you incurred for the charity event?

- a. Form 1099 MISC
- b. Form W-2
- c. Form W-9
- d. Form 2106

Explanation: Form 2106 is used to claim non-reimbursed work related expenses.

91. Your next client sits in your chair and when you enquire, reveals to you that she is 15 years old. What is the best course of action for you to take?

- a. Perform a 10-minute massage as usual.
- b. Tell the client that she is too young for massage, but that you will do it this time.
- c. Tell your client that you need her consent from one of her parents before you can massage her.
- d. Get your client to sign a consent form, then massage her.

Explanation: Parental consent is required before minors can receive massage of any kind.

92. One of the clients that you are working on tells you that you remind her of her brother and invites you to her house for dinner. What is this an example of?

- a. Sexual misconduct
- b. Transference
- c. A code of ethics violation
- d. A dual relationship

Explanation: Clients transferring feelings or thoughts that they have about another person onto their therapist constitute transference.

Sally and her friends have gone to the local spa. There is a steam room and they decide to all go in before the end of the day. Sally notices a bottle of eucalyptus spray. She fails to read the label that states do not spray directly on skin as it may cause irritation and burning. She thinks it would be a great experience to spray it on herself and step into the steam room. She has had some congestion and thinks it would be a great idea. While in the steam room her skin begins to burn and she runs out screaming. Her friends laugh at her and think she is overreacting. A massage therapist, who contracts with the spa to provide massage, comes into the wet room.

93. After Sally has been taken care of, she asks that the incident be kept private. What, if anything should the therapist do next?

- a. Close the spa as a precaution.
- b. Advise the onsite manager of what happened.
- c. Close the steam room.
- d. Do nothing, as the client asked that the incident be kept private.

Explanation: Management should always be informed of any incident that occurs on the property so that client safety can be assured and that all forms are filled out. As a contractor to the spa, the therapist would not have the authority to close down the spa or the steam room. Even if the client asked the therapist to keep the incident private, it is best to inform the manager so that the establishment can take the needed steps to protect the client and its own interests, like taking corrective measures.

94. Why did Sally's skin begin to burn?

- a. Water and oil do not mix and the water will drive the oil deeper into the skin.
- b. She did not apply the oil correctly to her skin.
- c. She had damaged skin.
- d. You cannot apply eucalyptus oil to the skin you can only inhale it.

Explanation: Water and oil do not mix. So water cannot dilute essential oils. Only lipid based oils can dilute essential oils. Even if Sally had diluted the essential oil it may still have been too strong for her skin as the water would have driven the oil deeper into her skin. Eucalyptus oil can be inhaled and applied to the skin. When applied to skin always apply it to a small area first and wait to see how the skin reacts. It is important to have fatty oil handy just in case the skin is sensitive and it can be applied to the skin to dilute the essential oils.

95. What should the massage therapist do?

- a. Remove the client and her friends from the spa as they are causing a disruption.
- ✓ b. Apply fatty oil such as grape seed oil, coconut oil, vegetable oil or olive oil.
- c. Have the client take a shower and wash off the oil.
- d. Leave the client alone to let her take care of it.

Explanation: Applying a fatty oil will dilute the essential oil relieving client of additional pain. A therapist should calm the client down and explain that she will be giving her fatty oil to apply to irritated skin to dilute oil and this will help the irritation to go away. Do not use water, as water will drive the essential oil deeper into the skin. Leaving the client alone and not helping her could cause more damage to client's skin. The Code of ethics advises therapists to accept responsibility and to do no harm to the physical, mental and emotion wellbeing of a client. In this case, due to therapist being present when a client is in pain, it is ethical for a therapist to attend to the client.

96. How could the spa correct this from happening again?

- ✓ a. Post a notice on the steam room door about the use of eucalyptus oil.
- b. Do not provide eucalyptus oil in the steam room.
- c. Apologize to client and offer to pay for her medical bills.
- d. Do nothing, as this is a freak accident.

Explanation: Putting a sign on the steam room door that eucalyptus oil is only to be sprayed in the air and not directly on the skin, where it is visible for clients to see, will help with direction. Other ways to prevent this type of accident is to have the spa attendant inform clients of the correct application while checking them in. Also, the spa should advise all personnel on its use. Eucalyptus oil is widely used in steam rooms worldwide and is an expected aspect of a steam room by many. While discontinuing its use is a possible solution, it is not the best answer, as it can be used safely. While apologizing to the client is appropriate, it would not be corrective action to prevent this accident from happening again with other clients. Even though this incident may be rare, it is foreseeable and corrective action should be taken.

97. All of the following are health benefits of eucalyptus oil, except:


- a. Anti-inflammatory
- b. Decongestant
- c. Deodorant
- ✓ d. Moisturizer

Explanation: Eucalyptus oil is known to have many medicinal qualities, including being an anti-inflammatory, decongestant, deodorant, anti-bacterial, as well as others. Although the oil is sometimes added to moisturizers to give them an aroma, the oil itself is not the moisturizing agent.

While working on a new client, you notice that he has raised moles on his back that are raised and irregular in shape. You are concerned for your client and do not want to unnecessarily alarm him.



98. Which of the following would be the best course of action for you to take with this client?

- a. Complete the massage, then advise the client that you will not see them again until they have been cleared by their physician.
- b. Say nothing, you do not want to unnecessarily worry your client.
- c. Advise your client that you think that they may have a skin carcinoma, based on your experience.

-  d. Complete the massage, then explain to your client what you observed and recommend that they have the moles examined by a doctor.



Explanation: Moles that grow, change shape or are irregular in shape or become discolored may be carcinomas and should be assessed by a physician.

99. What are the 5 layers of the epidermis, from deep to superficial?

-  a. Stratum corneum, germinativum, basale, lucidum, granulosum.
 b. Stratum basale, spinosum, granulosum, lucidum, corneum
c. Stratum granulosum, spinosum, corneum, basale
d. Stratum granulosum, germinativum, corneum, spinosum


Explanation: The stratum basale is the deepest layer of the epidermis. The stratum is the most superficial layer.

100. The outer surface of the skin is composed of what type of tissue?

- a. Stratified columnar epithelium
 b. Pseudostratified ciliated columnar epithelium
 c. Stratified squamous epithelium
d. Simple columnar epithelium

Explanation: Stratified squamous epithelium forms the outermost layer of skin and is also found to thicken in areas of the body (arms, feet, elbows) that experience varying degrees of friction and require extra layers for protection.

101. Based on your recommendation, the client sees his physician and had several cancerous moles removed from his back. He is also receiving chemotherapy treatment. Which of the following techniques are indicated when massaging clients receiving chemotherapy?

- a. Deep tissue
b. Lymphatic drainage
 c. Light Swedish
d. Structural integration

Explanation: When treating clients undergoing chemotherapy, deep tissue or structural techniques should be avoided.