Physiotherapy in Orthopedics

1. Which of the following instruments is most accurate to measure A-P translation of the knee for an ACL sprain?
   A. Goniometer
   B. Arthrometer
   C. Tape measure
   D. Dynamometer

Correct Answer: B.

2. A patient has limited right rotation caused by left thoracic facet joint capsular tightness at T6-7. What arthrokinematic glide would MOST effectively improve right rotation in sitting?

A. Superior and anterior glide on the right T7 transverse process
B. Superior and anterior glide on the left T7 transverse process
C. Superior and anterior glide on the right T6 transverse process
D. Superior and anterior glide on the left T6 transverse process

Correct Answer: D.

3. A physical therapist is using the palmar surface of his hands to compress the patient's soft tissue by performing small circular and long stroking movements with deep pressure. Which massage technique is the physical therapist doing?
   A. Friction
   B. Tapping
   C. Vibration
   D. Kneading

Correct Answer: A. The tapping massage technique is being used when the hands rapidly strike an individual's soft tissue. The vibration technique is used when the hands shake a

patient's soft tissue by using short, rapid, quivering motions. The kneading technique is used when the hands grasp and lift a patient's soft tissue

4. You are performing a leg length evaluation on a 16-year-old male. In order to properly measure the leg length, it is important to know the landmarks used to compare the actual leg lengths of both lower extremities of this individual. Which of the following landmarks would you be using for the measurement?

   A. Anterior inferior iliac spine to the lateral malleolus

   B. Anterior inferior iliac spine to the medial malleolus

   C. Anterior superior iliac spine to the medial malleolus

   D. Posterior superior iliac spine to the lateral malleolus

   Correct Answer: C.

5. A physical therapist is examining a patient with low back pain (LBP) hypomobility and has chosen to do accessory joint mobilization of the lumbar spine. Which grade of mobilization would be large-amplitude oscillations into the range of resistance?

   A. Grade II

   B. Grade III

   C. Grade IV

   D. Grade V

   Correct Answer: B. Grade III mobilizations are large-amplitude movements into tissue stretch or resistance end range.

6. You are analyzing the gait of a 4-year-old child referred for physical therapy consultation in the preschool setting. In regards to the swing phase, spasticity of the posterior tibialis can cause which of the following common gait deviations?

   A. Varus

B. Equinovarus

C. Foot drop

D. Insufficient knee flexion

Correct Answer: B. Equinovarus is a common gait deviation that occurs during the swing phase as a result of spasticity of the posterior tibialis (and/or gastrocnemius-soleus). Varus is a common gait deviation that occurs during the swing phase as a result of weakened peroneals, spastic invertors, or abnormal synergistic pattern. Foot drop is a common gait deviation that occurs during the swing phase as a result of weakened contraction of dorsiflexors or spastic plantar flexors. Insufficient knee flexion is a common gait deviation that occurs during the swing phase as a result of weakened hamstrings or extensor spasticity.

7. You have evaluated a patient's TMJ inability to open and close the jaw. You measure the patient's ability to open the jaw after 2 weeks of treatment of pain and inflammation. The patient now closes the jaw. The ..... muscle opens and ..... muscle closes the jaw?

   A. Masseter –Pterygoideus medialis

   B. Pterygoideus medialis - Zygomatics

   C. Pterygoideus lateralis - Pterygoideus medialis

   D. Zygomaticus - Temporalis

   Correct Answer: C. There are three jaw-closing muscles (masseter, temporalis, and medial pterygoid) and two jaw-opening muscles (lateral pterygoid and digastric)..

8. A physical therapist is preparing a patient for discharge from the hospital following a total knee replacement. As part of patient education, she is instructing the patient on what to look for in infection. Which of the following is NOT a cardinal sign of inflammation?

   A. Erythema

   B. Loss of function

C. Pain

D. Low-grade fever

Correct Answer: D. The cardinal signs of inflammation are erythema, increased tissue temperature, edema, loss of function and painLow-gradede fever is a systematic response and can indicate other pathology, including infection.

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9. A physical therapist is working with a patient who displays toe first stepping. The physical therapist know that toe first stepping can be a result of all except which of the following?

A. Weak dorsiflexors

B. Tight plantar flexors

C. Genu valgum

D. A shortened leg

Correct Answer: C. Genu valgum (knock-knees) is a common lower leg abnormality that is usually seen in the toddler, preschool and early school age child. In genu valgum, the lower extremities turn inward, causing the appearance of the knees to be touching while the ankles remain apart. Toe first is not a result of genu valgum. Genu valgum can contribute to over pronation. Toe first can be a result of weak dorsiflexors, tight plantarflexors, or a shortened leg.

10. The cause of short fourth metacarpal bone is:

A. Down's syndrome

B. Edward's syndrome

C. Turner's syndrome

D. Pseudohypoparathyroidism

D. Blood pressure

Correct Answer: A.

131. During self care evaluation in phase I of cardiac rehabilitation, the heart rate should not exceed .....:

A. 60/min

B. 100/min

C. 150/min

D. 75/min

Correct Answer: B.

132. What is the best position of ventilation for asymmetrical involvement of chest ?

A. Lying on uninvolved side.

B. Lying on uninvolved side with arms below 90 degrees of shoulder flexion.

C. Lying on involved side.

D. Lying on involved side with arms be below 90 degrees of shoulder flexion.

Correct Answer: D.

133. The following deviations that suggest the need for evaluation and referral for cardiovascular clients are:

A. Pulse over 90 or under 60

B. Red, warm, or hard veins

C. Pain and tenderness of extremities

D. All of the above

Correct Answer: D.

134. A patient presents to physical therapy two weeks after a total hip replacement. The physical therapist examines the scar, which is well healed and dry. What color is the scar MOST likely to be?

A. Red

B. Pink

C. Purple

D. Brown

Correct Answer: B. New scar tissue is bright pink. The physical therapist should be sure to educate patient on the care of the scar.

135. Which of the following is TRUE about antidiuretic hormone (ADH)?

A. During dehydration, ADH increases the rate of perspiration production

B. Alcohol stimulates ADH secretion

C. Pain, trauma, and anxiety suppress the secretion of

D. It is also called vasopressin

Correct Answer: D. Some hormones are known by alternate names including vasopressin for antidiuretic hormone (ADH).

136. A patient referred to physical therapy has been diagnosed with pulmonary edema. What is the BEST description of pulmonary edema?

A. Output from the right side of the heart is greater than output from the left side of the heart, resulting in accumulation of fluid in the lungs.

B. Output from the left side of the heart is greater than output from the right side of the heart, resulting in accumulation of fluid in the lungs.

C. Output from the left side of the heart is greater than output from the right side of the heart, resulting in edema in extremities.

D. Output from the heart is minimal and results in accumulation of fluid in the heart itself.

Correct Answer: A. When the output of the right side of the heart is greater than that of the left side, blood and fluid accumulate in the pulmonary veins, alveoli, and tissue spaces. This condition often accompanies congestive heart failure.

137. A physical therapist examines a patient after a coronary artery bypass graft. The therapist finds that the patient's resting heart rate is 48 bpm. The heart rate is of normal rhythm. What term BEST describes this patient's heart rate?

A. Normal heart rate

B. Bradycardia

C. Tachycardia

D. Dysrhythmia

Correct Answer: B. A heart rate of less than 60 bpm is considered to be bradycardia. Normal resting heart rate is between 60 and 100 bpm.

138. When reviewing a medical record, a therapist identifies an entry which classifies the patient's pulse rate as bradycardia. This should be interpreted as:

A. An increased pulse rate

B. A decreased pulse rate

C. An increase in the size of the heart

D. An underdeveloped atria

Correct Answer: B.

139. Plasma constitutes what percentage of the blood?

A. 20 %

B. 40%

C. 55%

D. 45%

Correct Answer: C. The liquid portion of the blood is plasma, which is 55% of the total volume.

140. Based on the "Dietary Guidelines for Americans", how much of a normal person's diet should be included of carbohydrates?

A. 15 - 20% of the total calories required

B. 40 - 50 % of the total calories required

C. 45 - 65% of the total calories required

D. 65 - 85% of the total calories required

Correct Answer: C

141. A therapist designs an exercise program to increase muscle strength and endurance in a patient rehabilitating from knee surgery. Which type of pharmacological agent would have an antagonistic effect on the desired objective?

A. Nonnarcotic analgesics

B. Nonsteroidal anti-inflammatory medications

C. Peripheral vasodilators

D. Skeletal muscle relaxants

Correct Answer: D.

142. .....incision is a muscle retracting incision.

A. Paramedian

B. Mcburney's

C. Kocher's

D. Infraumblical transverse

Correct Answer: A. McBurney's incision is an abdominal incision in the right lower quadrant. A Kocher incision is a subcostal incision used to gain access for the gall bladder the biliary tree.

143. In any exercise programme for 1 MET increased exercise level, the systolic blood pressure rises by .....:

A. 5-7 mmHg

B. 7-10 mmHg

C. 10-12 mmHg

D. 12-15 mmHg

Correct Answer: B.

144. Which is NOT true for peak flow measurement?

A. It increase with height

B. It decrease with age

C. Measures at the end of FVC

D. Measures at beginning of FVC

Correct Answer: D. Peak flow is a simple measurement of how quickly you can blow air out of your lungs. It's often used to help diagnose and monitor asthma.

145. ..... incision is used for gasterectomy.

A. Left upper paramedian

B. Right upper paramedian

C. Left subcostal

D. Midline

Correct Answer: A. Left upper incision on the let side helps to access the stomach for the gastrectomy.

146. The most appropriate standard position for bronchial drainage to the posterior basal segment of the lower lobes is:

A. Patient lying prone with lower extremities declined six inches

B. Patient in sidelying with a six inches elevation at the foot of the bed.

C. Patient lying in prone with a twenty inches elevation at the foot of the bed

D. None of the Above

Correct Answer: C

147. Treatment of choice for Caffey's disease:

A. Multiple drilling

B. Tetracycline

C. Penicillin

D. Curettage

Correct Answer: C.

148. A patient is exercising during his regular physical therapy treatment session. He has a history of type I insulin-dependent diabetes. After his ten-minute warm-up on the bicycle, he looks flushed and feels nauseated. He has some confusion about where he is, and he has acetone breath. What abnormal response to exercise is occurring?

A. Myocardial infarction

B. Hypoglycemic response

C. Hyperglycemic response

D. Hyperhydration

Correct Answer: C. Acetone, or fruity, breath is a classic sign of hyperglycemia; if ignored, it could progress to ketoacidosis or diabetic coma. During exercise, poor hormone control of glucose circulating in the blood can cause hyperglycemia

149. Fungal skin infection can be treated by .....:

A. Zinc iontophoresis

B. Dexamethasone iontophoresis

C. Copper iontophoresis

D. Iodine iontophoresis

Correct Answer: C.

150. Which is NOT a risk factor for pulmonary artery hypertension?

A. Multiple blood transfusion

B. Chest trauma

C. Near drowning

D. Aspiration of gastric content

Correct Answer: B.

151. In Erb's Palsy, the attitude of the limb is.....:

A. Shoulder add-int.rotation-elbow straight

B. Shoulder add-Ext.rotation-elbow straight

C. Shoulder add-int.rotation-elbow flexed

D. None of the above

Correct Answer: A

152. Surface area burn is calculated by rule of nine. How much surface palm of the hand include?

A. 1

B. 5

C. 7

D. 9

Correct Answer: A. The whole body is divided into 11 parts and totally 99%. The genitalia is considered as 1%., totally 100%.

153. Which direction of muscle fiber is described as running parallel to the body's midline?

A. Brevis

B. Oblique

C. Rectus abdominis

D. Serratus

Correct Answer: C. The abdominis muscle runs adjacent to the mid line in a parallel direction.

154. The female urethra is:

A. 3.4 cm in length

B. 3.4 mm in length

C. 12 cm in length

D. 12.5 cm in length

Correct Answer: A

155. Baer's Sl point refers to a point located approximately ..... on the spino-umbilical line.

A. 2" from ASIS

B. 2" from umbilical

C. At the junction of medial 1/3rd and distal 2/3rd

D. None of the above

Correct Answer: B.

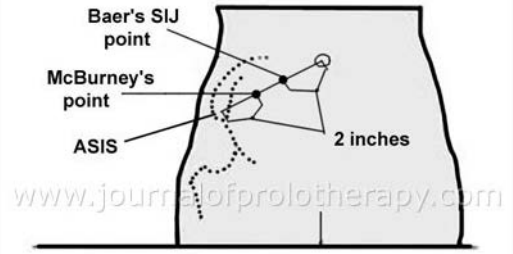

Figure 5. On a line from the umbilicus to the ASIS, Baer's sacroiliac point is two inches from the umbilicus and McBurney's appendicitis point is two inches from the ASIS.

156. A therapist volunteers to assist participants at the finish line in a 10 k rod race. The race takes place on a hot and humid day and some of the race organizers are concerned about the potential for heat related disorders such as heat exhaustion and heat stroke. The most significant variables to different between heat exhaustion and heat stroke are:

A. Blood pressure and pulse rate.

B. Coordination and level of fatigue.

C. Mental status and skin temperature.

D. Pupil dilation and blood pressure.

Correct Answer: C

157. A therapist assesses a patient blood pressure using the brachial artery. Which of the following statements is NOT accurate when performing this technique?

A. Explain the procedure to the patient in terms appropriate to his or her level of understanding

B. Expose the arm and place it at heart level with the elbow extended