PEDS Signature Assignment Practice Test (Sample)

Study Guide

Everything you need from our exam experts!

Questions

1. **Which symptom is commonly associated with Duchenne Muscular Dystrophy?**
   - **A. Quick recovery from physical activity**
   - **B. Difficulty negotiating stairs**
   - **C. Increased muscle tone**
   - **D. Visual impairments**

2. **What is a common muscle characteristic seen in individuals with pseudohypertrophy?**
   - **A. Increased muscle strength**
   - **B. Reduction in endurance**
   - **C. Enlargement without increased strength**
   - **D. Shortened muscle length**

3. **What age do infants typically start to crawl?**
   - **A. 4-5 months**
   - **B. 6-7 months**
   - **C. 8-9 months**
   - **D. 10-11 months**

4. **What can indicate a loss of ambulation in less than two years for children with Duchenne Muscular Dystrophy?**
   - **A. A 10-meter walk test time over 9 seconds**
   - **B. A 10-meter walk test of 12 seconds**
   - **C. Inability to climb stairs**
   - **D. Difficulty swinging arms during walking**

5. **What is a significant predictor of loss of ambulation ability in children with Duchenne muscular dystrophy?**
   - **A. Increased endurance**
   - **B. 50% reduction in leg strength**
   - **C. Improvement in respiratory function**
   - **D. Age at diagnosis**

6. When do infants typically begin to walk independently?

A. 10-11 months

B. 12-15 months

C. 8-9 months

D. 6-7 months

7. What type of muscle tone is characterized by lowered resistance to passive movement in children with Cerebral Palsy (CP)?

A. Hypertonia

B. Hypotonia

C. Spasticity

D. Atonia

8. When does an infant typically demonstrate protective extension forward?

A. 5 months

B. 6-7 months

C. 7-8 months

D. 8-9 months

9. Which specific skills are tested in the PDMS-2 for children aged 0-11 months?

A. Object manipulation, locomotion, stationary

B. Reflexes, locomotion, stationary

C. Hand-eye coordination, object permanence, reflexes

D. Locomotion, grasping, object manipulation

10. What is a common characteristic of Down syndrome?

A. Hypertension

B. Hyperactivity

C. Intellectual disabilities

D. Visual impairments

Answers

1. B
2. C
3. C
4. A
5. B
6. B
7. B
8. B
9. B
10. C

Explanations

1. Which symptom is commonly associated with Duchenne Muscular Dystrophy?

A. Quick recovery from physical activity

B. Difficulty negotiating stairs

C. Increased muscle tone

D. Visual impairments

Duchenne Muscular Dystrophy (DMD) is a genetic disorder characterized primarily by progressive muscle degeneration and weakness. One of the hallmark symptoms associated with DMD is difficulty negotiating stairs. This symptom arises because children with DMD typically experience weakness in the proximal muscles, particularly in the legs. As these muscles become weaker over time, tasks that require significant muscular strength and coordination—such as climbing stairs—become challenging. Children with DMD often struggle with other activities that involve raising their bodies against gravity, as the advancing muscle weakness significantly impacts their mobility and overall physical capabilities. Difficulty with stairs is often one of the first noticeable signs of the condition, making it easy for parents and pediatricians to identify a potential issue early in the child's development. The other options provided do not align with the typical presentation of Duchenne Muscular Dystrophy. While quick recovery from physical activity, increased muscle tone, and visual impairments can appear in various other conditions, they are not common symptoms associated with DMD. Thus, the correct answer reflects a key symptom that is specific and commonly seen in individuals with Duchenne Muscular Dystrophy.

2. What is a common muscle characteristic seen in individuals with pseudohypertrophy?

A. Increased muscle strength

B. Reduction in endurance

C. Enlargement without increased strength

D. Shortened muscle length

Enlargement without increased strength is a hallmark characteristic of pseudohypertrophy, particularly seen in conditions such as Duchenne muscular dystrophy. In pseudohypertrophy, muscles, especially in the lower limbs, may appear large or swollen due to the replacement of muscle tissue with fatty or fibrous tissue. Despite this apparent increase in size, the functional capacity of the muscle is compromised, meaning the strength does not correspond to the size increase. This phenomenon is significant because it highlights that visual assessments of muscle condition can be misleading; what looks like strong, developed muscles may not have the strength to perform physical tasks effectively. This characteristic is essential for understanding the pathology of certain muscular disorders and how they impact the individual's physical capabilities.

3. What age do infants typically start to crawl?

A. 4-5 months

B. 6-7 months

C. 8-9 months

D. 10-11 months

Infants typically start to crawl around 8 to 9 months of age. At this stage of development, they have usually built enough strength in their arms, shoulders, back, and core muscles, enabling them to push their bodies off the ground and move in a coordinated way. Crawling also represents an important milestone in an infant's physical and cognitive development, as it fosters exploration of their environment and promotes spatial awareness. While some infants may begin to show early crawling behaviors as early as 6 months, the more established and recognized period when most infants can crawl effectively falls at around 8 to 9 months. This timeframe aligns with the general developmental milestones outlined for children, marking an exciting phase as they become more mobile and curious about their surroundings.

4. What can indicate a loss of ambulation in less than two years for children with Duchenne Muscular Dystrophy?

A. A 10-meter walk test time over 9 seconds

B. A 10-meter walk test of 12 seconds

C. Inability to climb stairs

D. Difficulty swinging arms during walking

The correct answer is the indication of a 10-meter walk test time over 9 seconds. This measurement is a critical indicator of motor function and mobility in children diagnosed with Duchenne Muscular Dystrophy (DMD). In this context, a longer time on the test suggests decreased muscle strength and endurance, leading to a higher likelihood of loss of ambulation. In children with DMD, the progression of the disease results in weakening of the muscles, impacting their ability to walk and perform other movements. If a child's performance on the 10-meter walk test exceeds 9 seconds, it suggests significant motor deficits and often correlates with an impending loss of the ability to walk independently within a short timeframe. Other options, while they may indicate difficulties or functional impairments, do not provide the same quantifiable measure that is predictive of loss of ambulation as the 10-meter walk test result. Climbing stairs or swinging arms may be affected later in the disease process, but the timing of the walk test is typically a more immediate predictor of ambulation status. Therefore, the 10-meter walk test serves as a vital tool in assessing the progression of DMD and planning appropriate interventions.

5. What is a significant predictor of loss of ambulation ability in children with Duchenne muscular dystrophy?

A. Increased endurance

B. 50% reduction in leg strength

C. Improvement in respiratory function

D. Age at diagnosis

The significant predictor of loss of ambulation ability in children with Duchenne muscular dystrophy is the 50% reduction in leg strength. Duchenne muscular dystrophy (DMD) is characterized by progressive muscle weakness and degeneration. As the disease progresses, muscle strength diminishes, significantly affecting mobility and ambulation. When there is a 50% reduction in leg strength, it indicates a critical loss of the functional capacity necessary for walking and movement. Children with DMD typically lose the ability to walk around the age of 9 to 12 years, and this progression can be closely linked to the extent of muscle strength loss. Therefore, the measurement of strength provides clear insight into the child's overall functional abilities and helps predict when they may lose the ability to walk. Other factors mentioned, such as endurance and respiratory function improvement, do not directly correlate with the timing of loss of ambulation in the same way that significant loss of leg strength does. Age at diagnosis can provide context for the progression of the disease but does not necessarily serve as a direct predictor of when ambulation will be lost. The emphasis on muscle strength is central to understanding the decline in mobility associated with DMD.

6. When do infants typically begin to walk independently?

A. 10-11 months

B. 12-15 months

C. 8-9 months

D. 6-7 months

Infants typically begin to walk independently around 12 to 15 months of age. This developmental milestone follows several earlier stages of gross motor skills, such as crawling, pulling up to stand, and cruising along furniture. Between 12 and 15 months, children often gain the necessary strength and coordination to take their first steps without support. Walking is a complex motor skill that requires balance, muscle development, and confidence, which all continue to improve as infants grow. The time frame of 12 to 15 months is aligned with developmental norms based on extensive observations of infant behavior. This age range reflects when most children achieve this significant milestone, marking an important stage in their physical development and independence.

7. What type of muscle tone is characterized by lowered resistance to passive movement in children with Cerebral Palsy (CP)?

A. Hypertonia

B. Hypotonia

C. Spasticity

D. Atonia

Hypotonia is characterized by lowered resistance to passive movement, which is a hallmark feature in many children with Cerebral Palsy. In individuals with hypotonia, the muscles are weaker and exhibit less tension than normal, leading to floppy or soft muscle tone. This reduced resistance makes it easier to move the limbs passively, as there is not the usual firmness of muscle that would typically oppose that movement. In the context of Cerebral Palsy, such hypotonic tone can affect a child's ability to achieve normal motor milestones and may require therapeutic interventions to help improve strength and motor function. Understanding hypotonia is crucial for tailoring effective treatment plans and supporting physical development in children with CP.

8. When does an infant typically demonstrate protective extension forward?

A. 5 months

B. 6-7 months

C. 7-8 months

D. 8-9 months

Protective extension forward is a significant motor milestone that usually develops when an infant is around 6 to 7 months old. At this age, infants start to gain better control over their trunk and arms, which allows them to extend their arms forward in response to a loss of balance or when they are in a sitting position. This reflex helps them to prevent falls by reaching out to support themselves. As infants grow, they become more exploratory and adventurous in their movements, leading to a higher risk of stumbles or falls. The protective extension forward provides a safety mechanism to help them stabilize themselves and promote safe exploration of their environment. This milestone is closely tied to the overall development of gross motor skills, signaling that the child is becoming more mobile and independent. Motor development in this age range is crucial for a child's ability to explore, learn, and interact with their surroundings in increasingly complex ways.

9. Which specific skills are tested in the PDMS-2 for children aged 0-11 months?

A. Object manipulation, locomotion, stationary

B. Reflexes, locomotion, stationary

C. Hand-eye coordination, object permanence, reflexes

D. Locomotion, grasping, object manipulation

The PDMS-2 (Peabody Developmental Motor Scales, Second Edition) assesses a range of motor skills in young children, and for those aged 0-11 months, it specifically evaluates reflexes, locomotion, and stationary skills. At this age, reflexes play a crucial role in a child's early development, as they are foundational movements that later influence more complex motor skills. Locomotion involves a child's ability to move around, which starts with basic movements such as rolling over and crawling. Stationary skills assess how well a child can maintain a stable position, which is important for overall stability and future mobility. During this developmental stage, these categories of skills provide valuable insights into a child's motor development, helping to identify any areas where intervention might be necessary. Other options mention skills that may apply to children in different developmental stages or that are broader than what is specifically tested for this age group. Thus, focusing on reflexes, locomotion, and stationary skills aligns perfectly with the developmental milestones typically observed in infants within this age range.

10. What is a common characteristic of Down syndrome?

A. Hypertension

B. Hyperactivity

C. Intellectual disabilities

D. Visual impairments

A common characteristic of Down syndrome is intellectual disabilities. Individuals with Down syndrome often experience varying degrees of cognitive impairment, which can affect their learning abilities and overall intellectual functioning. This condition stems from the presence of an extra copy of chromosome 21, leading to developmental delays and challenges in areas such as reasoning, problem-solving, and adaptive skills. In addition to intellectual disabilities, individuals with Down syndrome may face other health challenges, but intellectual disability is one of the most defining traits of this genetic condition. It is important to recognize that the level of intellectual disability can vary widely among those with Down syndrome, ranging from mild to moderate or severe. The other options listed do not represent common characteristics of Down syndrome in the same way, as they are not universally experienced by individuals with the condition. While some may encounter health issues like visual impairments, they are not as ubiquitous as cognitive challenges associated with intellectual disabilities.