Developing Agility & Quickness
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#### <u>Developing Agility and Quickness</u> Course Objectives

### After completing the <u>Developing Agility and Quickness</u> course, the participant will:

- 1. Understand what factors are used to determine agility and quickness.
- 2. Learn how to maximize performances by training both physical and cognitive components of agility.
- 3. Evaluate proper body position, posture, and movement mechanics to maximize performance.
- 4. Learn the importance of basic motor develop and fundamental skills necessary for starting an agility and quickness program.
- 5. Help athletes gain a competitive advantage by training quickness through information processing, anticipation, and other decision-making drills.
- 6. Learn tests and evaluations to assess agility and quickness progress.
- 7. Learn a variety of open and closed skill drills using various equipment and strategies.
- 8. Comprehend how to properly progress an athlete through more challenging agility drills.
- 9. Understand how to properly develop and incorporate an agility training routine into an athletes training program.
- 10. Comprehend how to create programs and strategic tips for developing an agility program for specific sports.



# <u>Developing Agility And Quickness</u> Course Examination

For each of the following questions, circle the letter of the answer that best answers the question.

- 1. What does the combination of stride rate and stride length primarily determine?
  - A. Agility
  - B. Linear Speed
  - C. Quickness
  - D. Rate of Deceleration
- 2. Which phase of sprinting is critical for changing directions as rapidly and efficiently as possible?
  - A. Deceleration
  - B. Acceleration
  - C. Speed
  - D. Quickness
- 3. What position should the ankle of the free leg be in during the recovery phase of sprinting?
  - A. Neutral
  - B. Plantarflexed
  - C. Extended
  - D. Dorsiflexed
- 4. During the arm swing in sprinting, what angle should the elbow be flexed at?
  - A. 30 degrees
  - B. 45 degrees
  - C. 90 degrees
  - D. 110 degrees
- 5. Which muscles are the major contributors to stride frequency during the recovery phase of sprinting?
  - A. Hip Flexors
  - B. Quadriceps
  - C. Gluteals
  - D. Soleus
- 6. Which muscle group is primarily responsible for decelerating the lower leg during the recovery phase of sprinting?
  - A. Hip Flexors
  - B. Hamstrings
  - C. Quadriceps
  - D. Abductors

- 7. Which of the following is the MOST important contributor to agility?
  - A. Relative Strength
  - B. Absolute Strength
  - C. Stabilization Strength
  - D. Local Muscular Endurance
- 8. What is referred to as positive work or force exerted against external resistance that results in joint movement in the same direction of the force?
  - A. Eccentric Strength
  - B. Stabilization Strength
  - C. Concentric Strength
  - D. Isometric Strength
- 9. What type of strength is most important for quickly and effectively decelerating the body and preparing for directional change?
  - A. Eccentric Strength
  - B. Stabilization Strength
  - C. Concentric Strength
  - D. Isometric Strength
- 10. What type of motion are most injuries likely to occur with?
  - A. Agility Movements
  - B. Joint Stability
  - C. Joint Acceleration
  - D. Joint Deceleration
- 11. What muscle is responsible for improving hip stability during the push-off portion of sprinting by bringing the leg back towards the body?
  - A. Gluteus Maximus
  - B. Adductor Magnus
  - C. Gluteus Minimus
  - D. Psoas
- 12. What is referred to as the individual muscle's ability to improve motor unit recruitment?
  - A. Intramuscular Coordination
  - B. Intermuscular Coordination
  - C. Plyometrics
  - D. Power
- 13. According to the force-velocity relationship of muscle action, as movement velocity increases what happens to the force of muscle output?
  - A. It increases
  - B. It stays the same
  - C. It decrease
  - D. It speeds up
- 14. All of the following are phases of the stretch-shortening cycle EXCEPT:
  - A. Deceleration
  - B. Eccentric
  - C. Concentric
  - D. Amortization

- 15. What term refers to the ability to switch from the eccentric to the concentric phase of the stretch-shortening cycle?
  - A. Reactive Strength
  - B. Plyometrics
  - C. Series Elastic Component
  - D. Power
- 16. The neurophysiological mechanism behind the stretch-shortening cycle includes which of the following?
  - A. The Muscular System
  - B. Mechanical Mechanisms
  - C. Joint Structures
  - D. Anthropometric Variables
- 17. In order to take advantage of the potential force created with the stretch reflex what should be done with the amortization phase?
  - A. Keep it as long as possible
  - B. Keep it as short as possible
  - C. The amortization phase cannot use the force created by the stretch reflex
  - D. Rely only on active muscle contractions
- 18. Which of the following is the best training method for improving the stretch-shortening cycle mechanisms?
  - A. Strength Training
  - B. Sprint Training
  - C. Deceleration Training
  - D. Plyometric Training
- 19. Which of the following demonstrates proper arm swing to produce quick changes in direction?
  - A. Pump the arms less
  - B. Allow hands to cross the midline of the body
  - C. Not swinging the arms from the shoulders
  - D. Arm swing originating at the shoulder with 90 degree bend
- 20. Imagining that the navel is a camera and taking a picture in the direction the athlete wants to go, is a teaching cue to help:
  - A. Proper arm swing
  - B. Generate maximum power by turning the hips
  - C. Encourage low center of gravity
  - D. Help the athlete get into proper running form
- 21. The loudness or brightness of an environmental stimulus is referred to as:
  - A. Stimulus Clarity
  - B. Task Relevant Cues
  - C. Stimulus Intensity
  - D. Generic Stimulus
- 22. Which mode of stimulus has the fastest reaction time?
  - A. Kinesthetic
  - B. Visual
  - C. Auditory
  - D. Olfactory

- 23. A gun being fired to start a race is an example of which type of reaction task? Choice Α. В. Simple C. Kinesthetic D. Unanticipated 24. According to Hick's Law which type of reaction task can athletes respond to the fastest? Choice B. Simple Kinesthetic C. D. Unanticipated 25. Which type of anticipation refers to an athlete gaining more knowledge on how long it takes him/her to coordinate his/her own movements? A. **Effector Anticipation** B. Perceptual Anticipation C. **Spatial Anticipation Temporal Anticipation** D. 26. When training for anticipation skills, what should be the primary goal? Reliability Α. B. Speed and agility C. Anticipation cannot be trained Accuracy and speed of response D. 27. All of the following are reasons to include agility and quickness testing EXCEPT: Predict athletic potential Α. B. Identify strengths and weaknesses C. Demonstrate strength levels D. Compare athletes performance levels 28. The degree to which a test measures what it set out to measure is known as: Α. Validity B. Reliability C. Accuracy Objectivity D. 29. Which of the following would be the BEST sequencing order for testing? Endurance before power tests
  - B. Short duration before longer duration tests
  - C. Tests that are sport specific come first
  - D. Tests that the athlete are weaker in come first
- 30. Which of the following tests is actually a screen that measures eccentric strength?
  - A. Quadrant Jump Test
  - B. T Test
  - C. Box Step Off Landing Assessment
  - D. Pro Agility Shuttle
- 31. Which agility test would BEST test for technique and speed during straight sprinting?
  - A. 5-0-5 Agility Test
  - B. Pro-Agility Shuttle
  - C. Three-Cone-Shuttle Test
  - D. Illinois Agility Test

32.	What leads A.B.C.D.	evel agility drills use skills that mimic competition situations? Level 1 Level 2 Level 3 Level 4	
33.	What si condition A. B. C. D.	hould be done in order to make sure the athlete is improving agility rather than oning? Fully recover after drills Increase the quantity of drills Increase the intensity of drills Increase the variety of drills	
34.	Which of A. B. C. D.	drill would be the BEST fit for finishing a dynamic warm-up? Butt Kicks Toy Soldiers Quick Sprints Stationary Arm Warm-Up	
35.	What is A. B. C. D.	the BEST type drill to use for improving footwork, speed, and coordination? Ladder Drills Line Drills Dot Drills Cone Drills	
36.	During A. B. C. D.	line drills, what would be an example of using alternative patterns? Calling out random directions Using a triangle instead of a straight line Periodically tossing a ball to the athlete Performing the drill on one leg	
37.	All of th A. B. C. D.	ne following are examples of ladder drills EXCEPT: Two in the hole Ickey Shuffle In and Two Steps Out V Drill	
38.	For dot A. B. C. D.	B. 2ft C. 3ft	
39.	All of th A. B. C. D.	B. Landing C. Amortization	
40.	What are dot drills often referred to as, due to the repeated performance of either single or double-legged movements?  A. Single Response Drills  B. Multiple Response Drills  C. Plyometric Drills  D. Change of Direction Drills		

41. What type of dot drills involve forward, backward, and side-to-side movements within the same drill? A. Simple B. Basic C. Advanced D. Intermediate 42. Which of the following would be a level 2 cone drill? A. **Power Carioca** B. 90-Degree Round 90-Degree Cut C. Arrow Drill D. 43. A coach yelling out switch, change, or stop during an agility drill would be an example of what type of cue? Α. Auditory B. Visual C. Mixed D. Reaction 44. What type of cue would reading an opponent's movement and responding to, be an example of? Α. Auditory B. Visual C. Mixed D. Reaction 45. All of the following are variations to make the ball drop drill more difficult EXCEPT: Have the athlete start on one knee В. Hold a ball on each side and only drop one C. Drop two balls and call out which one to go for D. Decrease the distance between the athlete and coach 46. Which of the follow game for improving quickness is designed to improve situational awareness and strategic thinking? Α. Sharks and Minnows В. Everybody Is It C. Twenty-One Team Keep-Away D. 47. What must be the first concern to ensure an optimal learning and training environment when designing agility and quickness programs? A. Speed Power В.

How must space should you have per athlete in order to create a safe training environment?

C.

Α.

В.

C.

D.

48.

Safety Strength

10-20sa ft

20-30sq ft

30-40sq ft

40-50sq ft

- With regards to speed training and conditioning, what would be the best practice? 49. Perform them simultaneously Α. В. Perform agility drills before conditioning drills C. Perform agility drills after conditioning drills D. Create work-to-rest rations for agility drills that promote incomplete recovery 50. If an athlete takes less time to perform the same drill they are demonstrating: Decrease in anaerobic endurance В. Improvement in speed C. They are resting too much They are not resting enough D. 51. All of the following are ways of measuring volume in agility training EXCEPT: The number of sets performed Α. В. The frequency of training sessions C. The rest between drills D. The length of time required in drills 52. What is used to determine volume for dot drills? Α. Intensity В. The number of single-foot contacts C. Rest between drills D. Speed of drill 53. What would be an appropriate work volume per session for an intermediate athlete? Α. 2 minutes 3 minutes В. C. 4 minutes D. 5 minutes 54. What percent decrease in speed from an athlete's best score in a drill should lead to a discontinuation of agility training for the day? A. 3% В. 5% C. 8% D. 10% 55. What ability tends to fail first as an athlete fatigues? Α. Deceleration B. Acceleration C. Balance D. Quickness 56. What term refers to the amount of fitness improvement that carries over to competition? Motor learning A. В. Specificity
- 57. Which of the following drills is the MOST coaching intensive and require frequent feedback?
  - A. Drills for general footwork and body position
  - B. Drills for sport-specific footwork and body position
  - C. External reaction drills

Transfer of training

Motor development

D. Skilled agility drills

C. D.

- 58. Adding visual and auditory reaction components to drills would be an example of which type of drills?
  - A. Drills for general footwork and body position
  - B. Drills for sport-specific footwork and body position
  - C. External reaction drills
  - D. Skilled agility drills
- 59. According to the Motor Development Approach to agility training what types of skills should be developed FIRST?
  - A. Sport-specific agility
  - B. General skills
  - C. Ability to change direction
  - D. Reaction skills
- 60. When learning movements, which types of tasks should be focused on first?
  - A. Serial tasks
  - B. Discrete tasks
  - C. Blocked tasks
  - D. Random tasks
- 61. With respect to baseball and softball, which of the following would NOT be considered a category for agility training?
  - A. Range of Motion
  - B. Movement of Technique
  - C. Reactivity
  - D. Flexibility
- 62. Performing a line drill while dribbling a basketball would be an example of what?
  - A. Sport Specificity
  - B. Reaction Training
  - C. Deceleration Training
  - D. Acceleration Training
- 63. What position in football would MOST benefit from improvements in explosion, acceleration, and balance?
  - A. Quarterbacks
  - B. Running Backs.
  - C. Offensive Linemen
  - D. Kickers
- 64. Since wide receivers know the routes they will running before the play occurs, what type of agility drills would BEST benefit them?
  - A. Open Drills
  - B. Reaction Drills
  - C. Closed Drills
  - D. Line Drills
- 65. Which of the following is the BIGGEST contributor to developing quickness?
  - A. Acceleration
  - B. Power
  - C. Speed
  - D. Deceleration

66. When should agility and quickness drills be performed in a workout routine? At the end to improve conditioning Α. В. Early while the nervous system is fresh C. In the middle of the workout to break up strength work D. It depends on the athletes strengths and weaknesses 67. Which of the following work-to-rest ratio would BEST fit the needs of a hockey player? В. 1:2 1:4 C. D. 1:10 68. What term refers to an athlete maximizing their performance by applying sport-specific movements at optimal velocity and precision? Game Speed A. В. Sport Specificity C. **Transition Movements** D. **Breakaway Speed** 69. Which type of movement involves reacting to a soccer-specific stimulus? **Initiation Movements** B. **Actualization Movements** C. **Transition Movements** D. Game Speed 70. Which of the following would be an example of an Initiation movement pattern? Side Shuffle Α. B. Kick from a rolling start C. Athletic Position D. **Drop Step** 71. What should be the last focus when developing movement patterns in agility? A. Move to open situations B. Add sport-specific requirements C. Develop individual movement patterns Add distance and direction variation D. 72. In tennis, on average, how many direction changes are seen per point? Α. B. 4 C. 6 D. 10 73. What movement is found to make up 70 percent of all moves made in tennis? **Forwards** Α. B. **Backwards** C. Side-To-Side D. **Jumping** 74. All of the following would be true for training a tennis athlete EXCEPT? Focus on drills that move forwards and backwards mainly A. Reaction drills should be used to improve quickness and agility B. Track movements seen in competition and devise a program based off of that C.

Deceleration training should be used to help reduce injury

E.

- 75. The beginning of which season should agility training volume be at its highest?
  - А. В. Postseason
  - Off-Season
  - C. Preseason
  - D. In-Season