

# TEST AND MEASUREMENT

## 300-yard Shuttle Run

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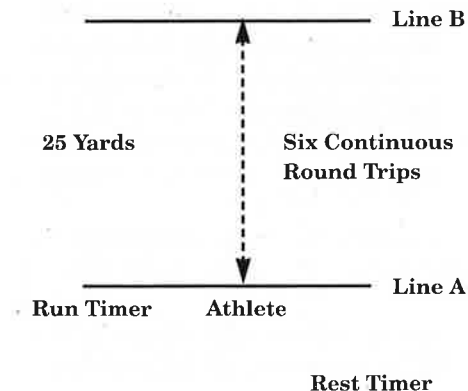
The 300-yard shuttle run is an excellent test of the anaerobic lactic endurance capacity and agility of an athlete. The use of this test is more beneficial than the quarter-mile in any sport in which rapid changes of direction in both the vertical and horizontal planes of movement are required. Athletes in sports such as soccer, rugby and, to a lesser extent, football would benefit from this test. Other sports where the test would be most applicable are basketball, baseball, wrestling and field hockey. The test could also be modified for use on ice by the ice hockey player.

The 300-yard shuttle run can be utilized as a training exercise run with a 2:1 (recovery:work) ratio to stimulate the lactic acid system. This enables the athlete to handle extreme levels of lactate accumulation while maintaining high performance levels.

Since this is a test of the lactic acid capacity, trialists should emphasize this system in their training sessions. For example, repeated workouts of 45 to 80 seconds with a 2:1 (recovery:work) ratio would tax this system

and thereby aid in adaptation. Other drills that emphasize agility would complement a running program to help lower the athlete's 300-yard shuttle run time.

There is some interplay of the phosphagen (ATP-PC) system within this particular test, especially in relation to the short burst of acceleration immediately after the turn to complete the next lap of the 25-yard course. ■



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# Procedure Checklist for the 300-yard Shuttle Run

## Equipment Needed

- A clean area of flooring free of clutter, preferably a gym floor
- Two stopwatches (1/10 second)
- Two parallel lines marked on the floor, 25 yards apart
- Two persons, one to time the run, one to time the recovery period

## The Test

- The athlete positions himself or herself behind the first of the parallel lines that are 25 yards apart.
- On the "GO" command, the athlete sprints from line A to line B, turns quickly and sprints back to line A. This is one complete trip. The athlete completes six continuous round trips for a total of 300 yards.
- Foot contact must be made on lines A and B when changing direction.

## Procedure

- Upon completion of the first 300-yard trial, a second watch is started to give the athlete a five-minute rest interval. The time for the first 300-yard run is recorded. During the rest interval, the athlete is allowed to walk and stretch to facilitate recovery. The athlete should stay alert for the starting signal of the second trial.
- At the 4:45 mark, the starter should call the athlete to the starting line. Exactly five minutes after the end of the first trial, the starter should give the "GO" command to begin the second trial.
- The athlete completes the 300-yard shuttle run course as he or she did during the first trial, and the time is recorded.
- After both trials have been completed, the two times should be added together and divided by two. The average time should be recorded to the nearest 1/10 second.

## Reasons for Disqualification

- Not touching lines A and/or B with the foot during the shuttle run
- Not beginning trial two immediately after the five-minute rest period

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# C.S.C.S. CEU QUIZ

*Note: This quiz may be used by the C.S.C.S. to acquire 0.3 CEUs.*

## 300-yard Shuttle Run

Choose the best answer for each question.

- The 300-yard shuttle run tests
  - anaerobic power and quickness.
  - anaerobic endurance and agility.
  - reaction time and aerobic endurance.
  - anaerobic endurance and strength.
- An example of a sport which would utilize the 300-yard shuttle run test is
  - tennis.
  - softball.
  - rugby.
  - ice skating.
- If used as a training exercise run, the appropriate recovery-to-work ratio for the 300-yard distance is
  - 3:1.
  - 2:1.
  - 1:1.
  - 1:2.
- The distance between the two parallel lines is
  - 25 yards.
  - 30 yards.
  - 45 yards.
  - 50 yards.
- The athlete is required to complete
  - four trips.
  - five trips.
  - six trips.
  - seven trips.
- The rest interval between trials is
  - 2 minutes.
  - 3 minutes.
  - 4 minutes.
  - 5 minutes.
- During the rest interval, the athlete is allowed to
  - sit down.
  - walk and stretch.
  - jog slowly.
  - stand quietly.
- The number of trials that the athlete must perform is
  - two.
  - three.
  - four.
  - five.
- The athlete's 300-yard shuttle run time is determined by the
  - average time of the trials.
  - best trial time.
  - average of the three fastest trials.
  - first trial time.
- The athlete can be disqualified by
  - beginning the trials after a five-minute rest period.
  - staying alert for the start of the next trial.
  - stretching the legs during the rest period.
  - not touching the lines with the foot during the test.

The answer to this quiz will be found in Volume 13, Number 3 of the **NSCA Journal**.

Answers to the C.S.C.S. CEU Quiz in Volume 13 Number 1 of the **NSCA Journal**:

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



# C.S.C.S. EXAMINATION 1991-1992

## 1991

### FEBRUARY

**Saturday, February 2**

Colorado Springs, Colorado

\*Orlando, Florida

Fresno, California

\*Raleigh, North Carolina

Early registration deadline:  
12-7-90

Registration cut-off: 12-21-90

### MAY

**Saturday, May 4**

Omaha, Nebraska

Syracuse, New York

Lansing, Michigan

Lubbock, Texas

Early registration deadline:  
3-8-91

Registration cut-off: 3-22-91

### JUNE

**Thursday, June 20**

\*\*St. Louis, Missouri

Clarion Hotel

Early registration deadline:  
4-19-91

Registration cut-off: 5-3-91

### AUGUST

**Saturday, August 10**

\*New York, New York

Los Angeles, California

Minneapolis, Minnesota

\*Milwaukee, Wisconsin

Early registration deadline:  
6-14-91

Registration cut-off: 6-28-91

### NOVEMBER

**Saturday, November 30**

Nashville, Tennessee

Corpus Christi, Texas

Baltimore, Maryland

Salt Lake City, Utah

Early registration deadline:  
10-4-91

Registration cut-off: 10-18-91

No registration will be accepted if postmarked after the registration cut-off date.

### 1991 Examination fees for members:

\$105 postmarked on or before early registration deadline.

\$130 postmarked after designated early registration date but on or before registration cut-off date

### 1992 Examination fees for members:

\$115 postmarked on or before early registration deadline.

\$140 postmarked after designated early registration date but on or before registration cut-off date

### CPR certificate is a requirement for the exam.

This means that proof of current certification must be presented when applying to sit for the examination.

### For more information contact:

Certification Information  
Department  
NSCA  
P.O. Box 81410  
Lincoln, NE 68501  
(402) 472-3000  
fax: (402) 476-6976

### Specific site locations will be sent with confirmation (after application).

The NSCA retains the right to cancel scheduled examinations.

Please note that some of the deadlines and sites for the 1991 examination have changed.

\* Designates changed exam site

\*\* Designates National Conference location

## 1992

### FEBRUARY

**Saturday, February 1**

Tucson, Arizona

Coral Gables, Florida

Iowa City, Iowa

Cleveland, Ohio

Early registration deadline:  
12-7-91

Registration cut-off: 12-20-91

### MAY

**Saturday, May 2**

Los Angeles, California

New Haven, Connecticut

Louisville, Kentucky

Las Vegas, Nevada

Early registration deadline:  
3-6-92

Registration cut-off: 3-20-92

### JUNE

**Thursday, June 18**

\*\*Philadelphia, Pennsylvania

Early registration deadline:  
4-23-92

Registration cut-off: 5-7-92

### AUGUST

**Saturday, August 8**

Fresno, California

Indianapolis, Indiana

Oklahoma City, Oklahoma

Washington, D.C.

Early registration deadline:  
6-12-92

Registration cut-off: 6-26-92

### NOVEMBER

**Saturday, November 28**

San Francisco, California

Atlanta, Georgia

Chicago, Illinois

Dallas/Fort Worth, Texas

Early registration deadline:  
10-2-92

Registration cut-off: 10-16-92