

# American Board of Electrodiagnostic Medicine



## CNCT Examination

Information  
For  
Candidates

2012

## Key Dates and Fees

### 2012 CNCT CERTIFICATION EXAMINATION

Hyatt Regency O'Hare  
Chicago, IL

#### KEY DATES

Early Application Deadline	November 30, 2011
Application Deadline	December 31, 2011
Examination Fee Refund Request Deadline	February 28, 2012
CNCT Examination (Chicago, IL)	May 4-5, 2012
Notification of Examination Results	June 9, 2012

Grande Lakes Orlando  
Orlando, FL

#### Written Examination Only\*

Early Application Deadline	August 24, 2012
Application Deadline	September 14, 2012
Examination Fee Refund Request Deadline	September 14, 2012
CNCT Examination ( <i>written only</i> )	October 6, 2012
Notification of Examination Results	November 5, 2012

\*The written portion of the CNCT certification examination will be held from 8:00 AM-12:00 PM on Saturday, October 6, 2012 during the AANEM's Annual Meeting at the Grande Lakes Orlando.

***This is the written portion only, successful candidates will be required to pass the practical examination at a later date in order to earn the CNCT credential.***

#### CNCT APPLICATION, EXAMINATION, AND FEES

Early Application Fee (nonrefundable)	\$25
Application Fee (nonrefundable)	\$50
Examination Fee* (refundable upon written refund request)	
CNCT Written Examination Fee	\$300
CNCT Practical Examination Fee	\$300

No applications will be processed without receipt of the application fee, examination fee, and all required supporting documents.

**Notice:** Deadlines are firm and not subject to exception. The content of this publication is subject to change from year to year. It is the applicant's responsibility to seek information concerning the current requirements for certification. The most current information found on the ABEM website ([www.abemexam.org](http://www.abemexam.org)) supersedes the information in all published booklets concerning Board requirements, policies, and procedures.

The ABEM does not discriminate among applicants on the basis of age, gender, race, religion, national origin, disability, sexual orientation, or marital status.

#### **Americans With Disabilities Act**

The ABEM supports the intent of the Americans With Disabilities Act (ADA). Candidates desiring accommodations for documented disabilities must complete a Disability Accommodation Request Form, which is available from the ABEM Executive Office or online at [www.abemexam.org](http://www.abemexam.org).

## Application and Eligibility Requirements

Candidates must meet eligibility requirements for the year in which the examination is taken, regardless of prior approval. Eligibility does not carry over automatically from year to year.

To be accepted, the application, application fee, and examination fee must be received by the application deadline date. No applications will be accepted after the deadline date.

### **All candidates for the CNCT Certification Examination must:**

1. Submit proof of successful completion of high school or higher education. Candidates may submit a copy of their transcripts or diploma from high school, GED, college, university, or technical school training.
2. Agree to abide by all AANEM position statements, including but not limited to those relating to physician supervision and scope of practice. Specifically, technologists must work under the direction of a neurologist or physiatrist and agree not to perform/interpret needle EMG studies or interpret NCSs.

### **In addition to the requirements set forth above, candidate must satisfy ONE of the following requirements on or before the application deadline:**

1. Completion of at least 12 months of full-time (or equivalent), practical, on-the-job training in nerve conduction studies (NCSs). This period of training must be performed under the direct supervision of a neurologist or physiatrist experienced in electrodiagnostic medicine, preferably an ABEM Diplomate. Additionally, the candidate must have experienced a minimum of 250 patient encounter where NCSs were performed on separate occasions.
2. Successful completion of an END Technologist program accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

Following receipt of the application, verification forms will be sent to the candidate's training and/or supervising physician(s).

# Examination Overview

## Examination Format

The written and practical examinations are held each spring at the Hyatt Regency O'Hare in Chicago, IL. The examination is given over a 2-day period - the written examination on day one and the practical examination on day two. In addition, the written examination is offered on the last Saturday of the AANEM's Annual Meeting each fall.

## Examination Content

**Written Examination.** The 4 hour written examination is multiple choice (approximately 100-150 questions) and tests knowledge in the areas of:

- Anatomy
- Ethics
- Nerve conduction techniques including blink reflex, late responses, and repetitive stimulation
- Clinical disorders and EDX problem solving
- Physiology and pathophysiology
- Instrumentation and technical considerations

**Practical Examination.** The practical portion of the examination involves a 1 hour assessment of a candidate's practical and technical skills in performing NCSs on a subject. Candidates will be examined by at least 1 physician and 1 certified technologist; a supervisor also may be present intermittently. Examiners and/or supervisors who are not personally acquainted with the applicant will test the candidate's ability to perform all aspects of a NCS, including patient handling, procedure preparation, and performance of NCSs using standard electrodiagnostic equipment. Candidates should have the ability to demonstrate and/or perform all aspects the following studies:

### Upper Extremity

#### Common Sensory and Motor

- Median motor - recording from the APB
- Median sensory - antidromic and/or orthodromic from index, long, including mid-palmar stimulation
- Ulnar motor - recording from the ADM
- Ulnar sensory -antidromic and orthodromic from the little finger and mid-palmar stimulation
- Radial sensory stimulating in the forearm and recording in the anatomical snuff box
- F-wave

### Lower Extremity

#### Common Sensory and Motor

- Superficial peroneal sensory
- Peroneal motor - recording from the EDB
- Tibial motor - recording from the AH
- Sural sensory
- F-wave
- H reflex

### Uncommon

#### Upper Extremity

- Median sensory - antidromic and/or orthodromic from thumb, and/or ring finger
- Radial motor - recording from the EIP
- Ulnar motor - recording from the FDI
- Ulnar sensory -antidromic and orthodromic ring finger and antidromic dorsal ulnar cutaneous
- Musculocutaneous recording from biceps
- Axillary motor recordings from the deltoid
- Medial antebrachial cutaneous
- Lateral antebrachial cutaneous
- Radial motor recording from the EDC

#### Lower Extremity

- Saphenous
- Medial/lateral plantar
- Facial motor recording nasalis or orbicularis oculi
- Peroneal motor - recording from the tibialis anterior
- Tibial motor recording from ADQP

#### Other

- Spinal accessory recording from upper trapezius
- Blink reflex
- Repetitive stimulation - APB, ADM, trapezius, nasalis, orbicularis oculi, and orbicularis oris

#### **Abbreviations:**

ADM= abductor digiti minimi  
ADQ = abductor digiti quinti  
ADQP = abductor digiti quinti pedis  
AH = abductor hallucis  
APB= abductor pollicis brevis  
EDB = extensor digitorum brevis  
EDC=extensor digitorum communis  
EIP = extensor indicis proprius  
FDI=first dorsal interosseus

During the first 45 minutes of the practical examination, candidates will be asked to demonstrate how they would perform NCSs for all the common and sensory nerves listed above. In addition, candidates will be asked to perform the following NCSs on a subject using standard electrodiagnostic equipment:

- 1 common sensory and motor NCS in the upper extremity
- 1 common sensory and motor NCS in the lower extremity
- 1 conduction velocity and late response

Candidates will be expected to demonstrate and/or communicate all aspects of the procedure, including patient handling, patient/procedure preparation, normal values, standardized distances, selection of instrument settings, application of electrodes, and stimulation. Candidates will not be asked to perform all of the nerves listed on the previous page.

During the remaining 15 minutes, the candidate will be asked to demonstrate and/or perform testing of nerves from the uncommon category.

Candidates will be required to bring their own electrodes to perform the practical portion of the examination. No bar electrodes will be allowed for motor studies during the performance of the practical portion of the examination.

Candidates may be asked to serve as test subjects for other candidates; therefore, candidates should wear loose clothing or scrubs that can be adjusted to expose arms and the lower legs.

## Examination Scoring and Results

### ***Determining the Passing Score***

For the written examination, the questions for the examination will be chosen from a database of questions. The questions will be analyzed by the committee and the minimum passing score established prior to the examination be given. The minimum passing score will vary each year depending on the ease or difficulty of the questions chosen for the examination. For the oral examination, criteria will be established for a minimum passing score based on the nerves chosen for the examination. After completion of the examination, the ABEM will notify candidates whether they passed or failed the written and/or practical portions.

No other information about the examination, examination results, or performance on subsections of the examination will be made available to the candidates.

### ***CNCT Certificate***

Upon approval of the candidate's application for examination and a passing score on the examination, the Board will grant a certificate stating the candidate has satisfied the requirements of the Board and is recognized as a CNCT. The recipient of a certificate will be listed in an online CNCT directory.

*Note:* A certificate granted by this Board does not confer any right, privilege, or license to practice as an END Technologist.

### ***Failing the Examination***

Candidates must pass both the written and practical examinations in order to earn the CNCT credentials. If a candidate fails one portion of the examination, the failed portion must be successfully completed within 3 years of passing the other portion. If both the written and practical examinations are not passed within 3 years of each other, the candidate must start the examination process over by applying for and taking both examinations again. The ABEM encourages all candidates who are unsuccessful on the examination to take the examination the following year.

### ***Release of Examination Results***

By applying for the examination, candidates agree that the Board may, at its discretion, release examination results and scores to researchers selected by the Board to study the testing and evaluation programs under appropriate conditions of confidentiality. Any such studies will only contain information about candidates in the aggregate and the names of individuals will not be revealed in any publications. The Board may release the results of candidate performance on any or all of the Board's examinations to the Director(s) of the Program(s) where a candidate

acquired training. Aside from the above reasons, individual examination scores will be considered to be confidential and will not be released to others except pursuant to legal process.

## Technologist Maintenance of Certification

A program of maintaining certification has been established to provide a mechanism for CNCTs to demonstrate their continuing education as they keep up-to-date with changes in their field. Successful candidates will be expected to demonstrate current knowledge and practical skills in periodic maintenance examinations.

The ultimate purpose of maintaining certification is to reassure the public and the medical profession that after initial certification, CNCTs continue to assimilate new knowledge and techniques and continue to develop their skills. The Technologist Maintenance of Certification Program (TMOCP) sets high standards for quality medical care and demonstrates professional accountability to the public by the ABEM and its CNCTs.

To extend their certified status beyond the 5-year certified period, all successful candidates will be enrolled in the TMOCP. The program is designed as a 5-year period of documenting continuing education, culminating in a half-day, proctored maintenance examination.

For more information concerning the TMOCP, visit [www.abemexam.org](http://www.abemexam.org).

## Revocation of Certificates

The Board shall have authority to revoke any certificate issued by it or to place a certificate holder on probation for a fixed or indefinite time if:

- The certificate was issued contrary to or in violation of the Bylaws or any rule or regulation of the Board.
- The person to whom the certificate was issued made any material misstatement or omission of fact to the Board in his or her application or otherwise.
- The person to whom the certificate was issued is convicted of a felony or an offense involving moral turpitude.

Any complaint in relation to such circumstances shall be reviewed according to procedures established by the Board.

## Study Resources

Information needed for the examination is available in standard texts and journals dealing with anatomy and nerve conduction studies. It may be helpful to review the *Study Guide for R.NCS.T. Written Exam* published by the American Society of Electroneurodiagnostic Technologists. Please note, however, that the ABEM does not necessarily consult these materials in the development of examination questions.

AANEM publications are also an excellent study resource. AANEM members have prepared numerous monographs, case reports, and handouts for courses, annual meeting plenary sessions, and workshops. In addition, candidates may find the AANEM's *Guidelines for Ethical Behavior Relating to Clinical Practice in Neuromuscular and Electrodiagnostic Medicine (Muscle and Nerve, 42, (4) 480-486.)* helpful. The AANEM has a library of educational videotapes that may be purchased. All AANEM publications, videotapes, and CD-ROMs may be ordered at [www.aanem.org](http://www.aanem.org). Please note, however, that the ABEM does not necessarily consult the material on this list in the development of examination questions.



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