Radiation Health and Safety (RHS®)

Exam Outline and Suggested References

The RHS exam is a component of the National Entry Level Dental Assistant (NELDA®) and Certified Dental Assistant™ (CDA®) certification programs.

There are no eligibility requirements to take the RHS exam.

The purpose of the RHS exam is to ensure that individuals meet knowledge-based competence in radiation health and safety tasks critical to the health and safety of patients and oral healthcare workers.

NELDA exams
Anatomy, Morphology and Physiology (AMP)
Radiation Health and Safety (RHS)
Infection Control (ICE®)

CDA exams
Radiation Health and Safety (RHS)
Infection Control (ICE)
General Chairside Assisting (GC)

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Exam Outline Overview

Exam Weighting by Domain

I. Purpose and Technique (50%)
II. Radiation Safety (25%)
III. Infection Prevention and Control (25%)

Exam Administration

<table>
<thead>
<tr>
<th>Number of Multiple-Choice Questions</th>
<th>80</th>
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<tbody>
<tr>
<td>Time for Exam (minutes)</td>
<td>60</td>
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<tr>
<td>Time for Appointment (minutes)</td>
<td>65</td>
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The RHS exam is administered in-person and through remote online proctoring. The candidate may choose the method they prefer. Remote proctoring allows candidates to take exams using their own computer while being remotely monitored by webcam and microphone. Candidates will not receive an advantage based on their administration mode. That is, the remotely administered exam is not easier (or harder) than the in-person exam.

DANB uses computer adaptive testing (CAT). Exams are scored based on the level of difficulty of the questions answered correctly. This method can more accurately pinpoint a candidate’s ability level. Each candidate is presented with the same percentage of questions from each domain. The average candidate will answer around 50% of the questions correct.
RHS Exam Outline

I: Purpose and Technique (50%)

A. Purpose of radiographic images
   1. Describe purpose of radiographic image
      a. Periapical
      b. Bitewing
      c. Full mouth series
      d. Occlusal
      e. Panoramic
      f. Cephalometric
      g. CBCT (cone-beam computed tomography)
   2. Identify survey used to examine or view specific conditions, teeth or landmarks.

B. Technique
   1. Review patient medical and dental histories for contraindications, including medications.
   2. Intraoral techniques, including error correction.
      a. Paralleling
      b. Bisecting angle
   3. Extraoral techniques, including error correction.
      a. Panoramic
      b. Cephalometric
      c. CBCT (cone-beam computed tomography) basics
   4. Technique modifications based on anatomical variations and clinical conditions.
   5. Purpose and maintenance of radiographic equipment.
   6. Patient management techniques before, during and after exposure.
   7. Mount images using facial (buccal and labial) view.
      a. Anatomical landmarks that aid in mounting.
      b. Match tooth views to tooth mount windows.
      c. Image viewing techniques.
   8. Anatomical structures and dental materials observed on images (e.g., differentiating between radiolucent and radiopaque areas).
   10. Prepare images for legal requirements, viewing, duplication and transfer (e.g., HIPAA).
II: Radiation Safety (25%)

A. X-radiation production.
   1. Sources of x-radiation for operators/other staff during x-radiation production.
   2. Factors affecting x-ray production (e.g., kVp, mA, exposure time).
   3. X-radiation characteristics.
      a. Primary.
      b. Scatter (secondary).
   5. X-radiation biology.
      a. Short-and long-term effects of x-radiation on cells and tissues.

B. X-radiation safety.
   2. Patient exposure to x-radiation (ALARA, ADA recommendations).
   3. Factors that influence x-radiation safety (e.g., filtration, shielding, collimation, PID length).
   5. Informed consent or patient refusal for exposure to x-radiation.

III: Infection Prevention and Control (25%)

A. Standard precautions for equipment and supplies according to ADA, CDC and OSHA, including but not limited to:
   1. breakdown and setup of treatment room.
   2. barriers.
   3. positioning devices.
   4. clinical contact surfaces.
   5. critical and semi-critical instrument sterilization.

B. Standard precautions for patients and operators according to ADA, CDC and OSHA, including but not limited to:
   1. hand hygiene.
   2. PPE (donning, doffing).
   3. cross contamination.
RHS Exam Suggested References

DANB exam committees use the following textbooks and reference materials to develop this exam. This list does not include all available study materials; these are the resources that exam committees have determined provide the most up-to-date information needed to meet a determined level of competence on this exam. Any one reference will likely not include all the study material required to pass the exam. Please note that previous editions of the resources below may be used for study purposes if the previous version was published within the past 7 years, unless noted otherwise.

This list is intended to help prepare for this exam. It is not an endorsement of the publications. You should prepare for the RHS exam using as many different study materials as possible.

Suggested References

Additional/Optional Study Resources
   □ Guidelines for Infection Control in Dental Health-Care Settings — 2003 (MMWR, Vol. 52, RR 17). www.cdc.gov/mmwr/preview/mmwrhtml/rr5217a1.htm
   □ Bloodborne Pathogens Standard (1910.1030)
   □ An Introduction to Basic Concepts in Dental Radiography (Course #715)
   □ DANB RHS Review
   □ DANB RHS Practice Test
   □ DANB ICE Review
   □ DANB Practice Test
DANB exams are developed using this exam outline, which is annually reviewed by subject matter experts (e.g., Certified Dental Assistant™ [CDA®] certificants and dentists). The outline is developed using a content validation study, which includes a job analysis survey where practicing CDA certificants are asked how often tasks are performed and how critical competent performance is to the health and safety of the public and oral healthcare worker. This study is conducted every five to seven years to ensure the outline is consistent with current clinical practices. DANB’s Board of Directors approves all updates to DANB exam outlines.

State Regulations

Each state’s dental board implements regulations and establishes rules for delegating legally allowable duties to dental assistants. Passing one or more of the DANB component exams or earning DANB certification only conveys authority to perform these duties in those states that recognize these exams or this certification as meeting state dental assisting requirements. This information is available at www.danb.org.