

Iowa Dental Board
Radiography Exam Study Guide

February 2026



Effective July 1, 2025, registration with the dental board is no longer required to practice as a dental assistant in Iowa.

Registration continues to be an option for those who are interested.

While state law makes dental assistant registration optional, employers and others (hospitals or clinics, public health, or volunteer opportunities) may require registration as a condition of employment or participation. Consult your employer or event sponsor to verify what requirements, if any, may exist.

Iowa law still requires dental assistants and nurses who take x-rays to obtain and hold a current qualification in dental radiography in accordance with Iowa Code section 136C.3.

Introduction

This manual has been designed to help prepare for the dental radiography exam.

Participation in radiography is only under personal supervision for training unless an active dental radiography qualification has been issued by the board. Radiography practice is not allowed on a lapsed registration and previously-registered assistants (QDA or XDA) are not eligible for trainee status.

Personal supervision means the dentist, or a licensee or registrant as delegated to by a licensed dentist, is physically present in the room to oversee and instruct all services of the dental assistant trainee.

Radiography training is required for trainees who are completing the requirements for dental assistant registration, for persons who complete a term of practical training for assisting and radiography but do not intend to become registered, or nurses.

Successful completion of the radiography exam is required for a radiography qualification issued by the Iowa Dental Board. Neither dental assistant registration (RDA) nor an active nursing license (RN, LPN) authorizes radiography.

If you do not successfully pass the radiography exam on the first try, you can retake the test. You may take the exam as many times as needed in order to pass, however only once per day. If multiple attempts on the same date, only the first score is valid.

The radiography exam consists of 50 questions and is divided into three parts:

1. Legal requirements for taking radiographs
2. Infection control requirements when taking radiographs
3. Clinical competencies

The radiography exam consists of a combination of true or false and multiple-choice questions. A minimum score of 75 percent (38 correct answers) is required to pass the exam.

Application for radiography qualification must be within five years of completion of education, clinical training, and examination date. While dental assistant registration is not required, application for radiography qualification can be completed at the same time as application for dental assistant registration, saving a separate application and fee at a later date.

For registered dental assistants with radiography qualification, the license number prefix is "QDA-." The radiography qualification is noted on the wall certificate and wallet card.

The radiography qualification number for nurses and unregistered assistants has the prefix "XDA-," and only the wallet card is issued.

SECTION 1: LEGAL REQUIREMENTS

Applicants should be familiar with the requirements for being legally authorized to take radiographs in dental offices, which are copied below.

1. IDENTIFY THE AGENCIES THAT OVERSEE DENTAL RADIOGRAPHY

The Iowa Department of Public Health's Bureau of Radiological Health is designated as the state radiation control agency. This agency is responsible for licensing facilities using radioactive materials and inspecting facilities using radioactive materials. The IDPH also requires that all dental x-ray machines be registered. Questions regarding radiation badges can be directed to IDPH. For more information, visit <https://hhs.iowa.gov/health-prevention/providers-professionals/radiological-health>

The Iowa Dental Board is responsible for ensuring that dental assistants meet minimum training standards in dental radiography. No assistant may participate in dental radiography unless the assistant has been issued a qualification in dental radiography by the board, is authorized to train in dental radiography while on trainee status, or enrolled in a formal course of study approved by the Board. Board rules at Iowa Administrative Code 481—Chapter 575 specify requirements for dental radiography qualification: clinical training, examination, and application with fee.

2. DISCUSS THE REQUIREMENTS FOR A DENTAL ASSISTANT TO PARTICIPATE IN DENTAL RADIOGRAPHY

Training

To be eligible for dental radiography qualification, a dental assistant must complete a course of study approved by the board that includes clinical training. Training must be completed within the five years prior to application for radiography qualification. The course of study can be taken at a board-approved postsecondary school, through another program prior-approved by the board, or while under trainee status using board-approved curriculum (this manual).

Examination

Proof of successful completion of a dental radiography examination is required for dental radiography qualification. The board accepts a passing score on the DANB (Dental Assisting National Board) Radiation Health and Safety (RHS) or NELDA (National Entry Level Dental Assistant) examination taken in the previous five years or the board's own radiography examination, which can be taken at one of the board-approved community college testing sites. Additional information on the DANB and NELDA exams is available at www.danb.org.

Application

Successful completion of training and the radiography exam do not qualify a dental assistant to take x-rays. Application for the radiography qualification from the Iowa Dental Board is required, separately (XDA) or with dental assistant registration (QDA). To obtain the qualification, an assistant must:

1. Make application online
2. Be at least 18 years of age
3. Successfully complete a board-approved examination in radiography at a test center or through an approved third-party provider, or submit proof of passing the DANB or NELDA radiation safety exam
4. Provide evidence of successful completion, within the previous five years, of a board-approved course of study in dental radiography. The course of study may be:
 - a. On the job while under trainee status
 - b. At a board-approved postsecondary school, or
 - c. From another program prior-approved by the board
5. Pay the required application fee

The trainee's supervising dentist certifies dental radiography clinical proficiency on the related registration form (Affidavit of Employment as a Dental Assistant for both registration and qualification or Certification of Dental Radiography Training for RAD qualification only). Applicants with only out-of-state experience will submit the form completed by their most recent employing dentist.

Renewal

Once issued, the radiography qualification must be renewed every two years to remain valid. Expiration is August 31 of odd-numbered years, on the same renewal schedule as dental assistant registration (optional). To renew the radiography qualification, two hours of continuing education specific to the subject area of dental radiography is required.

Failure to renew causes the qualification to lapse and become invalid for practice. If qualification has lapsed, the assistant cannot participate in dental radiography until the qualification is reinstated. Reinstatement requires additional fees, a completed application, and proof of continuing education. If the qualification has lapsed five years or longer, retake of the radiography examination is required.

Registered dental assistants who maintain a current qualification will have the words "Added qualification in Dental Radiography" on their renewal card. Iowa law requires registrants to display the current renewal card in conjunction with the registration wall certificate at their practice location(s). Possible penalties for violating the law include criminal and civil actions, as well as disciplinary action by the board.

Unregistered dental assistants and nurses who maintain a current qualification will be issued only a wallet card, which is to be displayed at each practice location. The License Type is “Qualification in Dental Radiography.”

IAC 481–575 includes rules governing radiography.

SECTION 2: INFECTION CONTROL

Applicants should be familiar with the CDC's infection control requirements for radiography, which are copied below from the CDC MMWR (2003).

Dental Radiography:

When taking radiographs, the potential to cross-contaminate equipment and environmental surfaces with blood or saliva is high if aseptic technique is not practiced. Gloves should be worn when taking radiographs and handling contaminated film packets. Other PPE (e.g., masks, protective eyewear, and gowns) should be used if spattering of blood or other body fluids is likely (11,13,367).

Heat-tolerant versions of intraoral radiograph accessories are available and these semi-critical items (e.g., film-holding and positioning devices) should be heat sterilized before patient use. After exposure of the radiograph and before glove removal, the film should be dried with disposable gauze or a paper towel to remove blood or excess saliva and placed in a container (e.g., disposable cup) for transport to the developing area. Alternatively, if FDA-cleared film barrier pouches are used, the film packets should be carefully removed from the pouch to avoid contamination of the outside film packet and placed in the clean container for transport to the developing area.

Various methods have been recommended for aseptic transport of exposed films to the developing area, and for removing the outer film packet before exposing and developing the film. Other information regarding dental radiography infection control is available (260,367,368). However, care should be taken to avoid contamination of the developing equipment. Protective barriers should be used, or any surfaces that become contaminated should be cleaned and disinfected with an EPA-registered hospital disinfectant of low- (i.e., HIV and HBV claim) to intermediate-level (i.e., tuberculocidal claim) activity.

Radiography equipment (e.g., radiograph tubehead and control panel) should be protected with surface barriers that are changed after each patient. If barriers are not used, equipment that has come into contact with DHCP's gloved hands or contaminated film packets should be cleaned and then disinfected after each patient use.

Digital radiography sensors and other high-technology instruments (e.g., intraoral camera, electronic periodontal probe, occlusal analyzers, and lasers) come into contact with mucous membranes and are considered semi-critical devices. They should be cleaned and ideally heat-sterilized or high-level disinfected between patients. However, these items vary by manufacturer or type of device in their ability to be sterilized or high-level disinfected.

Semi-critical items that cannot be reprocessed by heat sterilization or high-level disinfection should, at a minimum, be barrier protected by using an FDA cleared barrier to reduce gross contamination during use. Use of a barrier does not always protect from contamination (369– 374).

One study determined that a brand of commercially available plastic barriers used to protect dental digital radiography sensors failed at a substantial rate (44%). This rate dropped to 6% when latex finger cots were used in conjunction with the plastic barrier (375). To minimize the potential for device-associated infections, after removing the barrier, the device should be cleaned and disinfected with an EPA registered hospital disinfectant (intermediate-level) after each patient. Manufacturers should be consulted regarding appropriate barrier and disinfection/sterilization procedures for digital radiography sensors, other high-technology intraoral devices, and computer components.

SECTION 3: CLINICAL COMPETENCIES

Applicants should be familiar with the practical application of radiography. This instruction is to be provided under personal supervision by educators and/or supervising dentists. A licensed dentist can delegate training to a registered dental hygienist or dental assistant who has an active radiography qualification.

Applicants should know and understand the following:

- The clinical practice of taking x-rays
- All aspects of using x-ray equipment
- The proper use of sensor positioning devices
- The basic anatomy and position of x-rays
- The rationale for utilizing certain types of x-rays
- The ability to identify radiographic errors
- An understanding of radiation safety for the patient, self and others
- Hazards associated with radiation and how to prevent over-exposure
- An understanding of the ALARA (as low as reasonably achievable) concept
- An understanding of patient care related to radiography procedures

COMMONLY ASKED QUESTIONS:

1. Can a trainee take x-rays?

Yes. A trainee can take x-rays under the personal supervision of a dentist or the dentist can delegate training to a registered dental hygienist or dental assistant who holds an active radiography qualification.

2. How do I renew my radiography qualification?

Your radiography qualification must be renewed every two years, expiring August 31 in odd-numbered years. Renewal is available online beginning July 1 of each renewal year.

3. How many times can I take the radiography exam?

You can take the radiography exam an unlimited number of times, however is limited to once per calendar day. If multiple attempts on the same date, only the first attempt is valid. Remediation is not required for re-testing.

4. When can I take the exam?

You can take the exam whenever you feel prepared. There is not a required waiting period.

5. Where do I take the exam?

All of the Iowa community college testing centers are authorized to administer the dental radiography exam. The list of testing centers is available on our website.

6. What does it cost?

There is no charge to take the Iowa Dental Board's exam. However, the testing centers may charge a proctoring fee. This varies based on site.

7. How many questions are on the exam?

There are 50 questions.

8. What kind of questions are on the exam?

The radiography exam questions are spelled out above. They include legal requirements, infection control, and clinical questions.

9. What is considered a passing score? How will I know if I passed?

You must obtain a score equal to or exceeding 75 percent to pass the exam. This means you must get at least 38 out of 50 questions correct. Written score results are not provided. Your score is available on screen at the end of the test, and you will have the opportunity to review your answers. Test centers automatically send results to the dental board.

10. If I don't pass the exam, can I retake it?

You can retest as soon as the next calendar day. If multiple attempts on the same day, only the first result is valid.

11. Do I have to know about film to pass the exam?

No. The questions are global to either digital or film.

12. Are online exams available?

All Board exams are online but must be taken at an approved testing site.

13. What documentation do I need in order to take the exam?

No documentation or authorization is required. Schedule your testing appointment directly with the testing center.

14. If applying for dental assistant registration, do I have to take all three exams (jurisprudence, infection control, and radiography) at the same time?

No. You can take exams separately if you desire.

15. Who can I ask if I have questions?

Questions can be directed to stephanie.bowers@iowa.gov.