ABR | American Board of Radiology

Remote Core Exam Guide

Diagnostic Radiology & Interventional Radiology/ Diagnostic Radiology

2021

Contents

Getting Started 2
- Exam Registration
- Studying for the Exam

Technical Requirements 3
- Computer System Requirements
- Monitor Performance Self-Check (complete prior to exam day)
- Practice Exam and Technical Self-Check (complete prior to exam day)
- Proctorio® Test Taker Guide

Location Requirements 5
- Private and Quiet Space
- Permitted
- Not Permitted
- Allowable Personal Items

Exam Accommodations 7
- General Accommodations
- Nursing and Expectant Mother Accommodations

Exam Day Check-in 8
- Starting Your Exam Day
- Third-Party Remote Proctoring
- Technical Check
- Identification Check
- Room Scan

Exam Day Logistics 10
- Emergency Contact
- Schedule
- Breaks
- Intermission
- Scoring and Results Posting

Computer-based Remote Exam FAQs 13

© 2020 American Board of Radiology (ABR). Effective December 14, 2020. Revised December 21, 2020.

Getting Started

Exam Registration

Registration for this exam is completed on the Cognitive Expertise page in myABR. You will receive an email from the ABR when registration opens.

Please keep your email address updated in myABR to ensure that you receive these important exam-related communications.

Additional details regarding exam eligibility and registration can be found on the website.

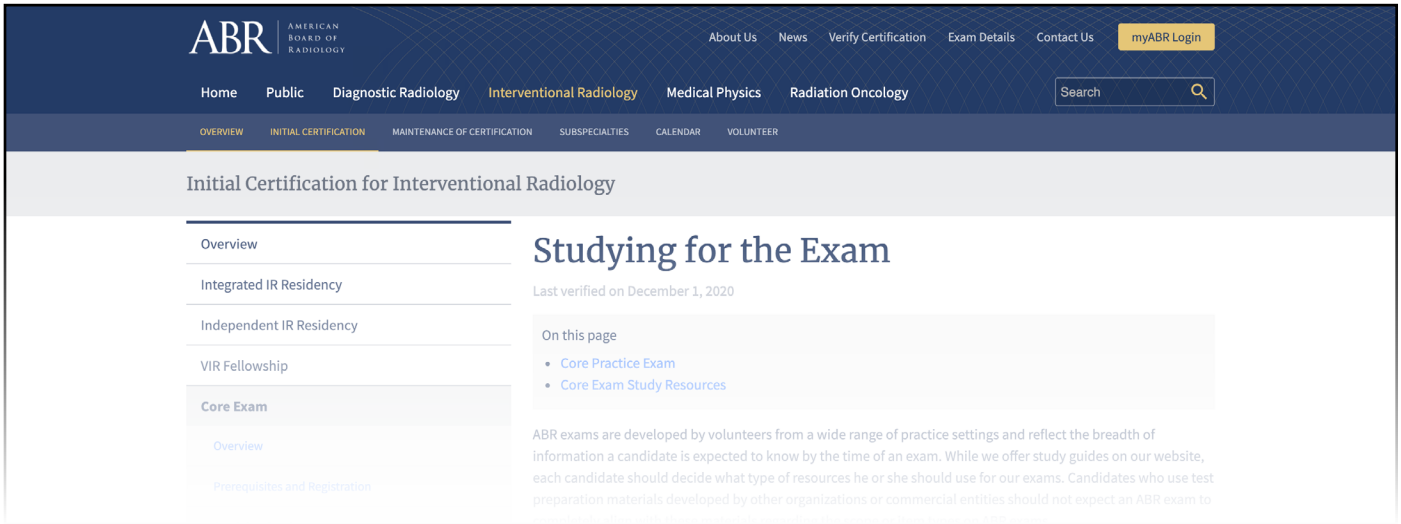
DR Core Exam Prerequisites and Registration
IR/DR Core Exam Prerequisites and Registration

Studying for the Exam

The Core Exam is developed by volunteers from a wide range of practice settings and reflects the breadth of information a candidate is expected to know by the time of an exam. While we offer study guides on our website, each candidate should decide what type of resources he or she should use for our exams. Candidates who use test preparation materials developed by other organizations or commercial entities should not expect an ABR exam to completely align with these materials in scope or item type.

For additional information, please visit the ABR website.

Studying for the DR Core Exam
Studying for the IR/DR Core Exam



Technical Requirements

Computer System Requirements

The computer system requirements listed below provide a basic overview of a system that will meet the technical requirements for ABR remote exams. Prior to your exam, you will be encouraged to complete a technical check to ensure your system meets minimum connectivity and internet browser compatibility requirements. In addition, there will be ample opportunity prior to each exam to gain familiarity with the software and systems through a practice exam. The practice exam will allow you to simulate the actual exam-day experience well ahead of your scheduled exam and confirm that your computer and location setup meet your expectations. If you change your computer specifications or location after your initial technical check is complete, we recommend you complete it again with your new setup.

Basic computer requirements:

- Internet/Network: reliable broadband internet connection, minimum 5 Mbps (megabit per second) download and 1 Mbps for upload
  - Check your connection speed
- Computer: Desktop or laptop (no iPad) with Windows 10 or MacOS X 10.11 or higher
- Computer memory: minimum of 4GB RAM
- Computer drive/storage: minimum of 10GB of free disk space
- Monitor: > 13” and 1080p minimum
  - Check your monitor resolution
- Keyboard and mouse
- Internet browser: latest version of Google Chrome
  - Check your version of Google Chrome
- Audio: microphone and computer speakers
- Camera: integrated or external webcam with a minimum of 640 x 480 @ 10 frames per second
  - *Note: camera will be used for the 360º room security scan and exam proctoring*
  - *Note: use of virtual backgrounds is not permitted*

IMPORTANT NOTE: You assume full responsibility for ensuring your computer setup meets the requirements for remote exams. This includes integrity of equipment, internet connectivity, system performance, and other issues related to but not limited to the above that are outside of the control of the ABR or our exam security vendor, Proctorio®. ABR staff are not able to provide technical support regarding individual setup for remote exams.

Monitor Performance Self-Check (complete prior to exam day)

The monitor performance self-check is intended to show imaging findings that should help determine if your laptop or desktop monitor is sufficient for ABR remote exams.

Practice Exam and Technical Self-Check (complete prior to exam day)

We recommend you complete the practice exam and technical self-check in the location and with the computer that you plan to use on exam day.

On January 4, 2021, you will receive an email with an authenticated link that will allow you to access the practice exam.

The practice exam provides a unique opportunity to familiarize yourself with the exam interface and navigation before the day of your exam. It is important that you complete the practice exam to fully understand the functionality of the exam interface, including case navigation, flagging questions, using the image manipulation tools, starting/ending a break, and question content blocking.

IMPORTANT NOTE: We recommend you complete the practice exam and technical self-check in the location and with the computer that you plan to use on exam day.

When the practice exam is launched, a quick technical check is initiated to ensure the microphone, camera, internet connection, and computer software are optimized for the exam. You may need to download an updated version of Google Chrome or the Proctorio® extension for Google Chrome to complete the technical self-check.

Proctorio® Test Taker Guide

A test taker guide is available here.

Location Requirements

Your ABR Computer-based Initial Certification Exam will take place in a remote location of your choosing, provided that place meets the basic requirements listed below.

Our expectation is that the space selected will be sufficiently private where interruptions and the presence of other people would be unexpected or unlikely to occur during the exam. If location interruptions are anticipated to be frequent or prolonged, arrangements should be made to use a different location to take the exam. Brief/sporadic interruptions could occur unexpectedly. In those cases, ABR senior staff will do a post-exam review to determine if the interruptions had potentially significant impact on the exam. Most brief/sporadic events would likely be deemed inconsequential.

Private and Quiet Space

- Alone, away from other people
- Free from background noise
- Free from interruptions
- Clear workspace

Permitted

- Secondary monitor
  - Not required but may be preferred. The monitor must be connected to the computer being used to take the exam and not a secondary device.
  - If you choose to use a secondary monitor, you will need to disable any other monitors connected to your computer.
- White board (8.5” x 11” maximum), dry erase markers, and an eraser
  - Not required. The exam interface has an electronic notepad you can use during the exam.
- Beverages and snacks
- Facial tissue
- See list of Allowable Personal Items below

Not Permitted

- Other individuals in room
- Open books, notes, and other study materials
- Cell phone or other mobile devices[1, 2]
- Camera or other recording devices (other than the webcam for security scan and exam proctoring)
- Watch
- Calculator (exam software includes a calculator)

[1] In the event of a major internet disruption, please have a cell phone accessible in a nearby room to contact the ABR or Proctorio®.

[2] The use of a cell phone or other mobile device is permitted during breaks and intermission.

Allowable Personal Items

Please note that you do **NOT** need to request testing accommodations for the specific items indicated below. However, if any other accommodations are needed that are **NOT** listed below, the formal Exam Accommodations request process must be followed.

Medicine and Medical Devices

- Arm/shoulder sling
- Bandages
- Braces: neck, back, wrist, leg, or ankle
- Casts/cervical collar
- Cough drops/hard candies
- Chapstick/lip balm
- Earplugs (foam with no strings)
- EpiPen
- Eye drops
- Eye patches
- Eyeglasses (without a case)
- Glucose monitor
- Glucose tablets
- Handheld magnifying glass (nonelectric, no case)
- Ice packs/nonelectrical heating pads
- Inhaler
- Medical alert bracelet
- Medical/surgical masks
- Medical rubber gloves
- Nitroglycerin tablets
- Pillow/lumbar support
- Pills
- Stool for elevating a limb
- Walking boot casts

Medical Devices (Attached to a person's body)

- Heart rate monitor
- Insulin pump
- Oxygen tank
- Spinal cord stimulator
- TENS units (Transcutaneous Electrical Nerve Stimulation) for nerve pain
- Continuous Glucose Monitor

Communication Aids

- Hearing aid/cochlear implant
- Vocal cord magnifiers

Mobility Devices

- Cane
- Crutches
- Walker
- Knee scooter
- Wheelchair

Exam Accommodations

General Accommodations

The ABR complies with the Americans with Disabilities Act (ADA) and makes reasonable accommodations in exam procedures for individuals with documented disabilities.

Candidates with disabilities may request modifications in the administration of an exam. The ABR will grant such requests unless modifications would place undue burden on the ABR or fundamentally alter the measurement of the knowledge and skills the exam is intended to assess.

Candidates considering the need for modifications must submit an application (link below).

All required documentation must be submitted to the ABR no more than one year and no less than six weeks in advance of the exam date. Candidates anticipating the need for accommodations are encouraged to contact the ABR office well in advance to allow sufficient time for producing any required documentation.

Failure to comply with this deadline may result in the candidate being scheduled without special accommodations.

Application for ADA Accommodations

Once a candidate has been approved for exam accommodations, he or she will receive notification of approval with any updates necessary. Although candidates will register for exams and select start times through myABR, certain accommodations may require modification to existing exam appointments. The candidate will be notified of any changes.

Nursing and Expectant Mother Accommodations

The ABR supports nursing and expectant mothers and makes reasonable accommodations in exam procedures for individuals making a request.

Nursing and expectant mothers may request modifications in the administration of an exam. Candidates must submit a request using the form provided below. Requests must be submitted to the ABR no less than one week in advance of the exam date. Typical accommodations include additional break time. Once an accommodation request is submitted, ABR staff will follow up to inquire about how best to accommodate the candidate's specific needs during the exam event.

Nursing/Expectant Mother Accommodation Request

Exam Day Check-in

Starting Your Exam Day

You will receive two email notifications with information about starting your exam.

1. **Five business days prior to your exam.**
   This notification will contain a link for starting your exam on exam day. *This link is unique to each examinee, so please do not share with other test takers.*

2. **Exam day.**
   This notification will contain a link for starting your exam on exam day. *This link is unique to each examinee; please do not share with other test takers.*

On exam day, you may also start by logging into myABR and navigating to the Cognitive Expertise menu on the left-hand side.

Third-Party Remote Proctoring

The ABR has partnered with Proctorio®, an exam security vendor, to help with exam check-in and remote exam proctoring during your exam.

Technical Check

Before starting the exam, you will go through an automated process that validates your system's ability to run the remote proctoring software. This typically starts with the installation of Google Chrome and the Proctorio® Google Chrome extension (if not already installed). Once the extension is installed, the system validates the quality of your internet connectivity and confirms the remote system can access your camera and microphone. This process usually takes approximately one minute.

Identification Check

The identification check is performed using an automated process in the exam software. This process requires you to show one of the acceptable forms of identification using the camera connected to your computer. ABR staff will validate the identification during post-exam processes. Personal information is protected using an encrypted key code that is only available to the ABR.

Identification must be from the following list and must include your signature and a recent recognizable photograph. This ID must be current (not expired).

Forms of acceptable identification are:

- Valid driver's license.
- State-issued identification card.
- Valid passport or passport card.

Note: military identification is not acceptable due to limitations of Title 18, US Code Part I, Chapter 33, Section 701. See more information here.

Room Scan

The room scan is performed using an automated process in the exam software and takes approximately one minute. The automated system will prompt you to do a room scan, turning your web camera in a 360-degree pan to survey the room. You will have the opportunity to repeat the room scan if needed. Be aware that you may need to perform a room scan multiple times during the exam.

Below is a short overview of the process.

1. The software will check to make sure your webcam and microphone are working properly and that screen sharing has been activated. You will be asked to share your screen for all connected equipment.
2. The software will ask you to slowly move the webcam around the room to verify that you are alone and that your desk is clear of prohibited items. Any prohibited items must be removed before your exam can begin.
3. Your exam launch button will be enabled when your exam is fully prepared for delivery.
4. The testing environment will be surveyed by the proctor prior to testing. The testing computer must be in a private room and be able to be used without interruption. Proctorio® will continuously monitor both the test taker and the testing environment.
    a. Refer to the Location Requirements section for details regarding what is permitted and not permitted in your exam room.
5. No other people (i.e., guests, visitors, family members) are allowed in your testing room.
6. No electronic devices (other than the computer being used to test) are allowed in the room. This includes cell/smartphones, signaling devices such as pagers and alarms, cameras or other photographic or duplicating devices, personal digital assistants (PDAs), recording devices or other hand-held computers, tablets and digital music players (e.g., iPod and iPad).
7. If you need assistance during your exam, please initiate a chat with the online Proctorio® test administrator using the in-exam chat tool.
8. No talking or any other form of communication is permitted once your exam has begun.
9. You are prohibited from reproducing, communicating, or transmitting any exam content in any form for any purpose. Copying or communicating content is a violation of the ABR Exam Security Policy.
10. You may not exit the camera view or use a cell phone or other electronic devices during the exam unless there is a failure in connectivity or you are on a break. You may also use your cell phone or other electronic devices during the intermission.

Exam Day Logistics

Emergency Contact

Approximately 48 hours before the exam, you will receive an email with an emergency contact phone number to be used only for contacting ABR staff for urgent issues related to your exam **on exam day**. If you have questions prior to exam day, please contact us at information@theabr.org or 520-790-2900.

Schedule

This table outlines your exam-day schedule, including breaks and intermission.

Core Exam

Day	Session	Registration / Check-in (minutes)	Number of Questions	Exam Time	Tutorial / Practice (minutes)	Total Exam Time	Break Time[1] (minutes)	Total Time[2]	Condition Possible
1	a	10	120	2 hours and 10 minutes	20	2 hours and 30 minutes	15	2 hours and 55 minutes	
Required intermission (60 minutes)									
1	b	10	120	2 hours and 10 minutes	N/A	2 hours and 10 minutes	15	2 hours and 35 minutes	
Total for day 1			240					6 hours and 30 minutes	
2	a	10	120	2 hours and 10 minutes	N/A	2 hours and 10 minutes	15	2 hours and 35 minutes	
Required intermission (60 minutes)									
2	b	10	120	2 hours and 10 minutes	N/A	2 hours and 10 minutes	15	2 hours and 35 minutes	
Total for day 2			240					6 hours and 10 minutes	
3	a	10	120	2 hours and 10 minutes	N/A	2 hours and 10 minutes	15	2 hours and 35 minutes	
Required intermission (60 minutes)									
3	b	10	57	1 hour and 1 minute	N/A	1 hour and 1 minute	10	1 hour and 21 minutes	
Total for day 3			177					4 hours and 56 minutes	
	ALL							17 hours and 36 minutes	Physics Only

[1] This exam is scheduled with a one-hour required intermission each day between sessions.
Break time is calculated at 5 minutes per hour (rounded up to the next hour).
You can take more breaks than these; however, your exam time will continue to count down.

[2]This is the total allotted time for the exam. Your total exam time may be less.

Schedule (Continued)

Conditioned Core Exam - PHYSICS ONLY

Day	Session	Registration / Check-in (minutes)	Number of Questions	Exam Time	Tutorial / Practice (minutes)	Total Exam Time	Break Time[1] (minutes)	Total Time[2]
1	a	10	136	2 hours and 27 minutes	20	2 hours and 47 minutes	15	3 hours and 12 minutes

[1]Break time is calculated at 5 minutes per hour (rounded up to the next hour).
You can take more breaks than these; however, your exam time will continue to count down.

[2]This is the total allotted time for the exam. Your total exam time may be less.

Breaks

Please take time to go through the Practice Exam to ensure a full understanding of how to start and end breaks, and how content blocking works after you return from a break.

Breaks are provided during each exam session (see chart above). You determine when to take a break and how many breaks are taken. If you exceed the provided break time, you may still take breaks, but it will affect your exam time.

IMPORTANT NOTES: You may leave the room during a break, but you must keep your webcam on and maintain your remote connection. After returning from a break, you will **NOT** be allowed to change (or add) a response to exam questions that were viewed prior to starting the break. This includes all answered, unanswered, and flagged questions.

Intermission

Intermission is a required 60-minute break between exam day sessions. If you end your first exam session early, you will not be able to start the second session early. A reminder of the start time for your second session will be provided when you end your first session. When you end your first session, you will be logged out of the exam. You should close your browser to end the webcam recording. You will need to re-establish your remote connection when you start your second session.

Scoring and Results Posting

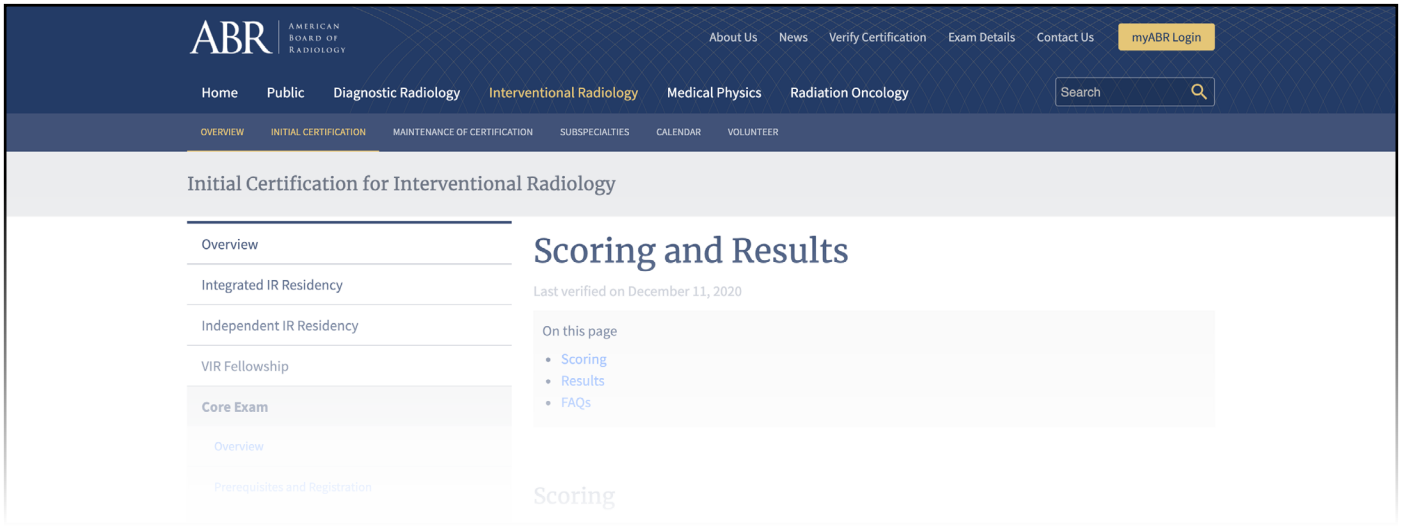
Results for the Core Exam are posted within approximately four weeks of the exam of the last day of the exam administration.

All ABR exam scoring is criterion referenced, meaning that a passing standard is established in advance of the exam. The exam is not graded on a curve and there is no set percentage of failures.

After the exam has been scored, your results will be posted in myABR. Your program director and chair will receive the same information to help in evaluating and improving their training program.

Please refer to the scoring and results page for more information.

DR Core Scoring and Results
IR/DR Core Scoring and Results



Computer-based Remote Exam FAQs

1. How do you know it is really me taking my exam?

Using the computer's webcam, ABR staff will compare the test-taker's face with a photo ID. You must verify your identity during the exam process by showing a picture ID that has your name and photo on the same side.

2. Can I take my proctored exam on a laptop or tablet?

ABR remote exams can be taken on a desktop computer or laptop with a Windows or Mac operating system. You may not use a tablet, iPad, Kindle, or other mobile device.

3. Are secondary or overflow monitors allowed?

Yes. A secondary or overflow monitor is allowed. The monitor must be connected to the computer being used to take the exam and not a secondary device. If you choose to use a secondary monitor, you will need to disable any other monitors connected to your computer.

4. Is software installation required for remote access?

Yes. To take an ABR remote exam with Proctorio®, you must be using the latest version of Google Chrome. You also must install the Proctorio® Chrome browser extension. You can install this extension at getproctorio.com. You only need to install this extension once and it should take less than 30 seconds.

5. Where should I take the remote proctored exam?

Please refer to the information in the Location Requirements for details on the location you choose for your exam.

6. Can I use books or notes during my remote exam?

No. Please refer to Location Requirements for details.

7. Can I use additional software during my online exam?

No. You must close all other programs or windows on your computer before you begin the exam.

8. What if I need to use the restroom during the exam?

You can select the Break function in the exam software. Any exam content you have seen prior to your break will not be available to answer after you return, so you will want to answer all items that you have seen prior to taking a break. You may also be asked to complete another room scan after returning from a break.

9. Will there be any room scans after my initial exam check-in is complete?

Possibly. A room scan can be required at any time during your exam.

10. What if I need extra time to take the exam?

Exam accommodations are available to candidates needing more time to take the exam. Requests for accommodations must be made in advance of the exam date. Please refer to the Exam Accommodations page on our website for more information.

11. Is someone watching me while I take my exam?

No. The ABR requires video, audio, and screen capture. Proctorio® will store that data and provide a report to the ABR. No Proctorio® employee has access to this data.

12. How do I access my exam on exam day?

Please refer to Starting Your Exam Day for more information about how to start your exam on your exam day.

13. Do I need to schedule my exam time in advance?

Yes. You will need to complete the exam registration process to secure a slot for a specific exam event. Please see Exam Registration for more information.

14. If I need help using Proctorio® during the exam, where do I go?

If you need technical assistance during the exam, please use the chat function built into the exam interface.

15. When is support available for the online exam process?

Proctorio® offers full live support 24 hours a day, 7 days a week.

16. Where can I go to learn more about Proctorio®?

Please visit https://proctorio.com/.

17. How do I know that my privacy is protected?

Proctorio® uses zero knowledge encryption technology that ensures your information is encrypted when it leaves your computer, is transferred, and then stored in the Cloud. All information collected during the exam is done so securely. The online proctored exam information is stored in a fully secure environment.

18. Will Proctorio® ever obtain or give out my personal information?

Never. Proctorio® does not and cannot collect personal identifying attributes on any user, so there's no information to give to third parties.

19. How do I know that Proctorio® isn't collecting information from my computer when I'm not in an exam?

Proctorio® only runs when you're active in a remote exam session. Since Proctorio® runs in your browser, you can rest assured there's no separate program collecting your data. In addition, you can uninstall the Proctorio® extension from your browser when you have completed the exam.

20. Who can view exam recordings?

Only the ABR can unlock and view the exam recordings, not Proctorio®. Data is secured using a state-of-the-art double encryption technology that ensures that all your exam data is safe from hacking attempts.

ABR | American Board of Radiology

Useful Resources

myABR:
https://myabr.theabr.org/

Monitor Performance Self-Check:
https://www.theabr.org/monitor-performance-self-check

Proctorio®:
Test Taker Guide

Help Desk:
information@theabr.org

5441 E. Williams Circle, Tucson, Arizona 85711-7412 | P: 520.790.2900 | F: 520.790.3200 | www.theabr.org