Canadian Association of Radiologists (CAR) Medical Student Network (MSN)

CAR MSN Radiology Resource Guide

A resource companion for medical students and junior residents learning to read imaging

Version 5 - September 2026

About This Guide

Welcome, and thank you for picking this guide up. If you are about to start a radiology rotation, you are joining a specialty that is delightful to learn, and one that most of us were never formally taught.

There are many excellent resources for learning radiology. So many, in fact, that deciding where to start can feel overwhelming. That feeling is the reason this guide exists. What follows is a non-exhaustive list of the resources our team has found helpful during our own training, offered in the spirit of one student passing a good recommendation to another.

This guide is a companion for anyone learning to read diagnostic imaging: medical students on a radiology elective, students approaching a residency application, and junior residents finding their footing in the reading room. It collects and organizes the resources we believe will help you excel.

We have identified three pillars that will help you approach imaging you do not yet know how to read. The guide is built around those three questions:

- **Anatomy:** what am I looking at? Cross-sectional anatomy can look markedly different from the anatomy learned in the cadaver lab. It often has to be relearned in the imaging plane, and that is completely normal.
- **Approach:** how do I move through the study so that I do not miss critical details? A search pattern applied the same way every time is what separates looking at a scan from reading one.
- **Pathophysiology:** what is wrong, and why does it look like that? Findings you understand mechanistically are the ones you will still recognize further down the line.

Section I organizes core resources around these three pillars. Section II helps you turn all of it into a routine you can sustain throughout your rotation. Section III applies the same three-part structure to individual subspecialties. The appendices provide extra content: residency-level texts, Anki setup, a full resource index, and a short feedback form we would love you to fill out.

Within each pillar, resources are ordered by complexity and tagged for difficulty and cost. The pillar tells you *which question* a given resource develops, while the difficulty rating informs whether the answer suits your current level of training. A first-year resident and a student on a two-week elective can follow the same three pillars and simply select different resources. In the case where a resource offers both free and paid tiers, we have broken down what each tier gets you.

A final note before you dive in: you do not need all of these resources. One resource you trust per pillar is more than enough. Please use this guide the way you would use a friend's recommendation, which is to say, take what is useful and leave the rest.

Legend: Difficulty & Cost Key

Difficulty

- ●○○ **Starting Out:** Foundational content assuming little or no prior exposure. Start here if radiology is new to you.
- ●●○ **Mid-Rotation:** Content that builds pattern recognition and a working differential for common findings. Appropriate once the basics are in place.
- ●●● **Residency-Ready:** Advanced classification systems, terminology, and self-testing. Written for trainees who already have a reliable approach.

Cost

- **FREE**: no cost or institutional access required.
- **PAID**: requires personal purchase or paid subscription.
- **FREEMIUM**: usable core content for free with a paid tier that unlocks more (see the *Free vs. paid at a glance* breakdown under each **FREEMIUM** resource).

A note on institutional access: several paid resources may be available at no personal cost through your medical school's library or hospital network. Access varies considerably between institutions, and some programs have dropped subscriptions in recent years, so it is always worth checking what you already have before purchasing anything.

Meet the Team

This guide was written and curated by medical students and residents within the Canadian Association of Radiologists Medical Student Network.



Dr. Jimin Lee
CAR MSN Coordinator, PGY-1 Diagnostic Radiology, University of Toronto

Dr. Lee is a PGY-1 Diagnostic Radiology resident at the University of Toronto. She completed her MD-MSc in Health Systems Leadership and Innovation at the University of Toronto. Dr. Lee previously served on the MSN Committee as Secretary-Treasurer and Student Lead. She has also been actively involved with volunteer initiatives within the CAR, including the Equity, Diversity, and Inclusion (EDI) Working Group and the Environmental Sustainability Working Group. As the incoming CAR MSN Coordinator, Dr. Lee hopes to connect with medical students across Canada to introduce the field of radiology and provide mentorship.



Amina Hadjadj
MS3, McGill University

Amina Hadjadj is an MS3 at McGill University, where she previously completed a BSc in Anatomy and Cell Biology. She went on to pursue an MSc in Experimental Medicine at the Université de Montréal, where her research explored the use of magnetic resonance imaging to guide the delivery of specialized beads in the treatment of hepatocellular carcinoma (HCC). This experience sparked her interest in medical imaging and in the ways radiology can contribute to both diagnosis and minimally invasive treatment. Her interest in radiology has continued to grow through her

experiences in research and medical school, as well as through the guidance of inspirational mentors she encountered along the way. The CAR has also been an important space for her to further explore and develop her passion for the field over the years. She is drawn to radiology for its unique intersection of anatomy, clinical reasoning, technology, and innovation. Through this guide, she hopes to make radiology resources more accessible and easier to navigate, allowing students to discover a variety of tools and materials to support their learning.



Joshua Ron Onichino
MS3, McGill University

Joshua Ron Onichino is an MS3 at McGill University whose interest in radiology began with physics. The idea that a well-posed question about tissue, contrast, and signal can be answered non-invasively still strikes him as one of the most amazing aspects of medicine. He is a data scientist at CoreSlicer Lab supervised by Dr. Jonathan Afilalo, where he leverages AI to extract body composition biomarkers from routine CT and applies them to outcome prediction in varied clinical populations. His broader interests sit at the intersection of imaging, AI, and clinical decision-making, spanning deep learning segmentation of clinical CT, explainable machine learning in orthopedic oncology, and AI-based image enhancement in the angiography suite. He is drawn to radiology for its unique combination of breadth and depth which he hopes is reflected in the guide that this team has put together.



Amanvir Virdi
MS3, University of Toronto

Amanvir Virdi is an MS3 at the Temerty Faculty of Medicine, University of Toronto, holding an MSc and BSc (Hons) from York University, where her research focused on cardiac muscle physiology. She now brings this background to a growing focus on diagnostic and interventional radiology, with current work on cardiac CT-guided decision-making for tricuspid valve intervention and a particular interest in the barriers medical students face in pursuing the specialty. She is an active member of the CAR's MSN and CAIR's Radiation Safety Committee, and is driven by a commitment to making radiology, and medicine more broadly, more accessible for the next generation of learners.

Acknowledgements

This guide is more complete than anything our small team could have written alone, and that is thanks to a group of residents took the time to read early drafts and tell us how we can improve them. We are grateful to each of them for their time and consideration.

With thanks to the residents who reviewed this guide:

- **University of Toronto:** Dr. Samuel Haile, Dr. Rakhshan Kamran, Dr. Aren Mnatzakanian
- **McGill University:** Dr. Mehrshad Bakhshi, Dr. Lucas Ciancimino, Dr. Luis Henry Gonzalez Torres, Dr. Ding Yi Zhang
- **University of Ottawa:** Dr. Naomie Conde
- **University of Calgary:** Dr. Alex Cheng
- **Queen's University:** Dr. Chloe DesRoche

We also thank the **Canadian Association of Radiologists Resident and Fellow Section (CAR RFS)** for its support, and for connecting us with reviewers across the country. If you are a Canadian radiology resident or fellow, the RFS is well worth joining.

Any errors that remain are ours, and we would be glad to hear about them (see *Tell Us What You Think*).

Section I: The Three Pillars

These are the resources you will reach for on every rotation, regardless of subspecialty. They are grouped by which of the three questions each one answers and ordered from most introductory to most advanced. You do not need all of them to succeed, just one you trust from each pillar.

Pillar 1 - Anatomy: What Am I Looking At?

Anatomy is the cornerstone of radiology. You cannot call a structure abnormal until you know what it looks like when it is normal. We recommend refreshing your knowledge of the relevant region *before* the rotation starts, which is one of the simplest ways to get more out of your time.



e-Anatomy (IMAIOS)

FREEMIUM ●○○ (Starting Out)

An interactive cross-sectional anatomy atlas that lets you scroll through labeled images alongside corresponding diagrams. Extremely useful for relearning anatomy in the imaging plane.

How to use it: Use it before or during a rotation to refresh cross-sectional anatomy for that region. It pairs especially well with *STATdx* cases from the same body region.

Pairs well with: *STATdx* for correlating normal anatomy with pathology cases.

Free vs. paid at a glance:

Free tier includes	Paid tier unlocks
A selection of anatomical modules and image previews	Full module library

Radiology Cafe Mock Anatomy Exams

FREE ●●○ (Mid-Rotation)

A free bank of mock anatomy identification exams. It was built for the UK FRCR exam format, but the skill it tests, which is rapid and confident anatomy identification on imaging, translates directly regardless of where you are training.

How to use it: Requires a free account. Use timed practice sets toward the end of a rotation as a check on how much anatomy has stuck, rather than as a first-pass learning tool.

Pairs well with: *e-Anatomy* for review of any structures you miss.

Pillar 2 - Approach: How Do I Move Through the Study?

This pillar is the one most often skipped, and the one that most reliably separates a student who is looking at a scan from one who is reading it. The specific search pattern matters far less than having one and using it every single time.

Habits That Apply to Every Study

Whatever modality or region you are on, these basic steps to interpretation apply. Build them in early, as they are much harder to retrofit later.

- **Confirm the basics.** Right patient, right study, right date. Then look at the study requisition for the ordering indication and clinical history, and know what question the ordering provider is hoping to have answered.
- **Assess adequacy and technique.** Is the study (i.e., projection, penetration, coverage, contrast phase) adequate? If it is not, that belongs in your report.
- **Find the prior studies and reports.** Often the single most useful image is the previous one. Change over time is frequently more informative than any finding on today's study, and it is sometimes necessary to open several priors to track the evolution of a process.
- **Use a fixed order, every time.** A standard search pattern applied consistently beats an excellent one applied occasionally. The goal is to rely on your strategy for navigating imaging rather than on findings jumping out at you.
- **Work outside-in.** The eye is drawn to the centre of the image and to the obvious abnormality. Starting at the periphery and working inward is a deliberate counterweight to that bias, and it is why so much gets missed at the edges of the image.
- **Use all your windows and planes.** Be mindful of using the appropriate soft tissue, lung, and bone windows, as well as axial, coronal, and sagittal planes. Pathology that is invisible on one can be unmistakable on another.
- **Check the review areas last.** Every study has known blind spots. Learn the ones for your modality and make a deliberate second pass through them before you finish.
- **Commit before you look at the report.** Commit to your finding and your differential before comparing with the structured answer or report provided. Recognizing an answer is not the same skill as producing one, and only one of them is tested on rounds.

💡 **Pro-tip:** If you take one thing from this guide, take this pillar. Anatomy can be looked up and pathology can be studied, but a search pattern only becomes yours through deliberate repetition.

2A. Structured Teaching (Non-Case-Based)

These resources teach you the framework first. They are the best place to start if radiology is new to you, and the fastest way to pick up the vocabulary you will need on day one.



Radiology Masterclass
FREE ●○○ (Starting Out)

A UK-based teaching site with structured tutorials and self-assessment quizzes on plain film and CT interpretation, aimed at students and allied health professionals. A good, structured alternative if you prefer guided modules over open-ended reference browsing.

How to use it: Work through the general modules early in an elective to build a systematic approach to film interpretation before layering on subspecialty content.

Pairs well with: *Radiology Cafe* mock exams for further self-testing once you have completed the relevant modules.

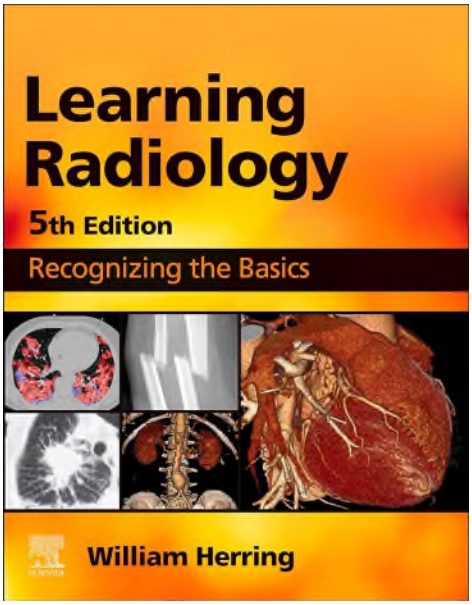
Queen's University Undergraduate Radiology Resources

FREE ●○○ (Starting Out)

A small, well-made collection of open-access modules built for undergraduate medical teaching, covering basic X-ray physics, chest X-ray basics, abdominal imaging, MSK plain films, and a five-part neuroradiology series. The page also links out to the European Society of Radiology's undergraduate eBook and an open-source undergraduate imaging textbook.

How to use it: Start with the physics module. Understanding *why* a structure is white or black on a given modality makes every subsequent anatomy and pathology resource easier, and it is the piece most students skip. Then work through the module matching your upcoming rotation.

Pairs well with: *e-Anatomy*, since these modules assume regional anatomy you may want to refresh alongside them.



Herring's Learning Radiology: Recognizing the Basics (with companion Anki deck)

PAID ●○○ (Starting Out)

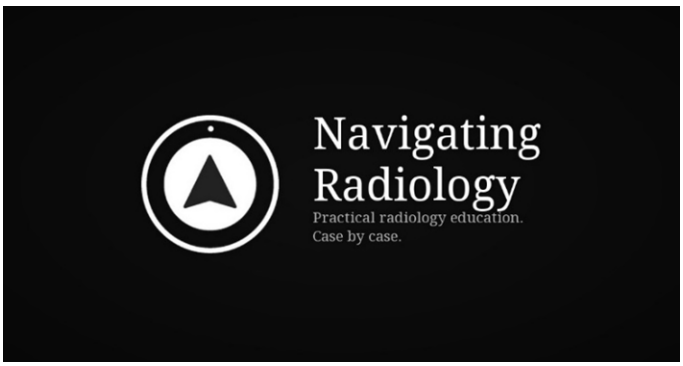
The classic entry-level radiology textbook, written specifically for medical students with no or minimal prior exposure. Short chapters, clear illustrations, and a search-pattern approach to each modality make it the most recommended "first book" in radiology.

How to use it: Read the relevant chapters before your first day on a new rotation. Community-made Anki decks based on the book can reinforce terminology and classic findings (see *Appendix B*). Check your library before buying.

2B. Case-Based Practice

This is where the approach becomes yours. Reading about a search pattern takes an afternoon but working towards making one automatic takes repetition on real studies. Several residents told us this category was the most valuable addition to the guide, so we have given it its own space.

The common thread across everything below: **commit to a read before you look at the answer.** That single habit is what converts passive familiarity into something you can produce independently.



Navigating Radiology

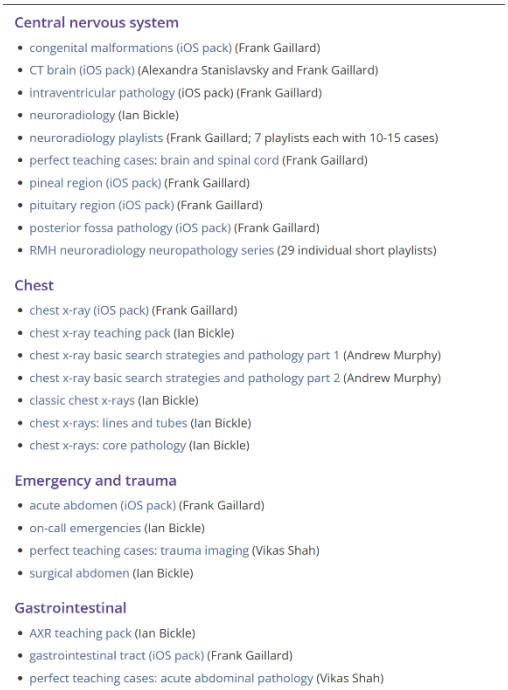
FREEMIUM ●○○ (Starting Out)

A case-based education platform and accompanying video library built for budding radiology enthusiasts with no assumed prior knowledge. While the platform is geared toward mid-rotation learners, the videos are excellent for anyone just starting out. Created by Dr. Rajesh Bhayana, it excels at combining short teaching videos with real DICOM cases you interpret yourself.

How to use it: Start with the free trial cases and courses to see whether the teaching style fits how you learn before committing to a paid course. Because it uses real interactive cases rather than static images, it is especially good for building the habit of committing to a diagnosis rather than simply recognizing one.

Free vs. paid at a glance:

Free tier includes	Paid tier unlocks
Select cases, videos, and subsections within the *Acute Imaging Essentials* and *MRI Mini-Fellowships* courses	All cases, videos, and subsections within all courses



Central nervous system

- congenital malformations (iOS pack) (Frank Gaillard)
- CT brain (iOS pack) (Alexandra Stanislavsky and Frank Gaillard)
- intraventricular pathology (iOS pack) (Frank Gaillard)
- neuroradiology (Ian Bickle)
- neuroradiology playlists (Frank Gaillard; 7 playlists each with 10-15 cases)
- perfect teaching cases: brain and spinal cord (Frank Gaillard)
- pineal region (iOS pack) (Frank Gaillard)
- pituitary region (iOS pack) (Frank Gaillard)
- posterior fossa pathology (iOS pack) (Frank Gaillard)
- RMH neuroradiology neuropathology series (29 individual short playlists)

Chest

- chest x-ray (iOS pack) (Frank Gaillard)
- chest x-ray teaching pack (Ian Bickle)
- chest x-ray basic search strategies and pathology part 1 (Andrew Murphy)
- chest x-ray basic search strategies and pathology part 2 (Andrew Murphy)
- classic chest x-rays (Ian Bickle)
- chest x-rays: lines and tubes (Ian Bickle)
- chest x-rays: core pathology (Ian Bickle)

Emergency and trauma

- acute abdomen (iOS pack) (Frank Gaillard)
- on-call emergencies (Ian Bickle)
- perfect teaching cases: trauma imaging (Vikas Shah)
- surgical abdomen (Ian Bickle)

Gastrointestinal

- AXR teaching pack (Ian Bickle)
- gastrointestinal tract (iOS pack) (Frank Gaillard)
- perfect teaching cases: acute abdominal pathology (Vikas Shah)

Radiopaedia Educational Playlists

FREE ●●○ (Mid-Rotation)

Curated playlists of real, mostly scrollable cases organized by system and pathology, including chest X-ray, CT brain, and trauma imaging. It simulates real-world reading closely. Each case opens with clinical information and patient demographics, followed by scrollable images much as you would see them in PACS. Some cases run across multiple parts and modalities to show the evolution of a pathology and the contribution of each study, so you might begin with an abdominal ultrasound, move to a CT of the abdomen and pelvis, and finish with MRI/MRCP.

How to use it: Choose a playlist matching the modality and region you want to work on, then interpret every case as though it were real. Commit to an impression, then compare it with the provided final diagnosis and report.

Pairs well with: *Radiopaedia* articles on whichever pathology the case turned out to be.



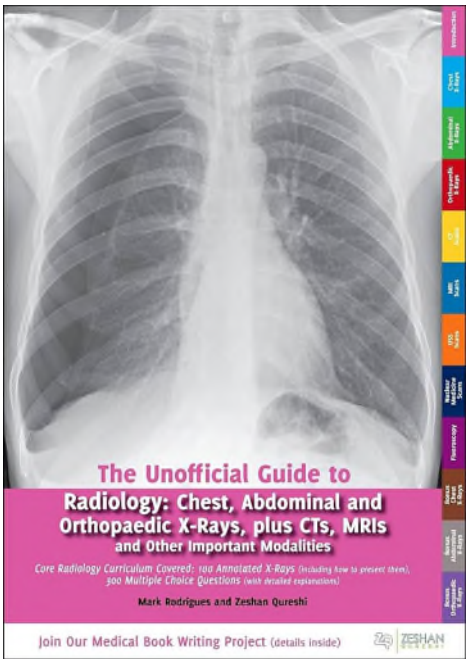
One Night in the ED (Radiology 2.0)

FREE ●●○ (Mid-Rotation)

A free iPad app built by Dr. Daniel Cornfeld that walks you through a night's worth of emergency department CT studies, presented as full scrollable stacks rather than single key images. There are no subscriptions or in-app purchases. It remains one of the most quietly effective ways to practise scrolling through a real study and committing to an answer, particularly for abdominopelvic CT.

How to use it: Work through a handful of cases per sitting. Scroll the whole stack and commit to your read before opening the discussion. It is genuinely well suited to a commute, a quiet call shift, or the twenty minutes between cases.

Pairs well with: the *Emergency Radiology* lectures in Section III, for the reasoning behind what you are seeing.



Rodrigues & Qureshi's The Unofficial Guide to Radiology

PAID ●○○ (Starting Out)

A case-based book organized around common exam presentations, walking through a systematic approach to interpreting each image before revealing the diagnosis. Its popularity stems from the fact that it mirrors how you will be asked to present cases on rounds.

How to use it: Work through cases actively. Commit to a systematic approach and a differential before flipping to the answer, exactly as you would when presenting to staff.

Pairs well with: *Radiology Cafe* mock exams for additional case-based self-testing once you have built up the approach.

Pillar 3 - Pathophysiology: What Is Wrong, and Why Does It Look Like That?

Anatomy and approach get you to the finding. This pillar lets you explain it. Try not to memorize appearances in isolation. The appearance is a consequence of the underlying process, and the trainees who understand the mechanism are the ones who can still reason their way to an answer when the case does not look like a classical presentation.

Radiopaedia

FREEMIUM ●○○ (Starting Out)

The largest crowdsourced radiology reference on the internet, with articles, annotated cases, and curated case collections covering essentially every diagnosis you will encounter. The single most-used radiology website among students and residents alike.

How to use it: Use it the way you would use a medical wiki. Look up any finding, pathology, or classification system the moment it comes up on rounds or in a case. The case galleries are excellent for pattern recognition practice in idle moments.

Free vs. paid at a glance:

Free tier includes	Paid tier unlocks
Full article and case library; case quizzes	Ad-free browsing for supporters; all-access pass holders can access all courses, conferences, lectures, and exam prep Radiopaedia offers



Radiology Assistant

FREE ●●○ (Mid-Rotation)

Published by the Radiological Society of the Netherlands, this site offers polished, in-depth teaching modules on individual topics. It is particularly strong for classification systems and structured reporting approaches (BI-RADS, TI-RADS, LI-RADS, and similar).

How to use it: Go here specifically when you need to understand a classification system beyond memorizing the categories. The modules walk through the reasoning behind each grade.



STATdx

PAID ●●○ (Mid-Rotation)

A comprehensive clinical decision-support and case reference tool used heavily by practicing radiologists and residents, organized by diagnosis with classic imaging examples, differentials, and reporting pearls.

How to use it: Use it to look up the classic imaging appearance of a diagnosis you have just seen on rounds. Some students can reach it free through their library or hospital network, so check yo ur access before assuming it is out of reach. Please note, however, that the subscription is expens ive and a number of programs no longer carry it, so do not be discouraged if yours does not.

Pairs well with: *e-Anatomy* for normal anatomy correlation in the same region.

Looking for more depth? Two comprehensive residency-level textbooks, *Brant and Helms' Fundamentals of Diagnostic Radiology* and Sun, Shi, & Mandell's *Core Radiology*, are covered in **Appendix A**. They are excellent, and they are also considerably more than a student on a short elective needs. We have moved them out of the main pillars.

Beyond the Pillars: Breadth and Professional Exposure

These do not answer any one of the three questions, but they do let you see what the specialty looks like beyond your rotation. They are useful for perspective, for interview conversations, and for discovering which subspecialty you like most.



Academy of Online Radiology Education (ACOREdu)
FREE ●●● (Residency-Ready)

An online education platform aimed at learners from medical students through practicing radiologists, hosting recorded webinars and lecture content from a range of contributing educators.

How to use it: Browse for webinars targeted toward medical students or early trainees rather than working through it end-to-end, since the content spans a wide range of levels. Good for dipping into a specific topic before a related rotation or lecture.



Canadian Association of Radiologists Continuing Professional Development (CAR CPD)
PAID ●●● (Residency-Ready)

The CAR's own education platform, built primarily for practicing radiologists and residents earning CPD credits, but a useful window into the professional side of the specialty.

How to use it: Not a primary study tool for an elective, but worth browsing for lecture series and events relevant to Canadian practice patterns. CAR membership benefits include access to this content.

Section II: Building a Study Routine

The three pillars give you insight into *what* to study. This section is about turning these resources into an approach you can sustain across a rotation. The resources above and below work best in combination. The right combination depends mostly on how much time you have, so mix and match freely based on what your school and library already give you access to.

The Three-Ingredient Formula

Whatever resources you pick, a workable routine has three moving parts:

- **Foundational Element:** the primary resource that teaches you the material for the first time.
- **Daily Review:** spaced repetition or a daily case habit that runs every day.
- **Continuous Practice:** structured, broad-material practice that forces you to commit to an answer and defend it, converting familiarity into consolidated knowledge.

These map onto the pillars rather than replacing them. Your **foundational element** is usually a Pillar 2A or Pillar 3 resource. Your **daily review** is where anatomy and classic findings get consolidated. Your **continuous practice** is Pillar 2B, and it is where the approach becomes automatic, because it is the only ingredient that asks you to commit to an answer under something like real conditions.

💡 **Pro-tip:** *If you only keep one ingredient running when things get busy, keep Daily Review. It is the ingredient that protects what you have already learned.*

A Two-Week Rotation, Sketched Out

Most electives are short. Below is a workable default for a two-week block. Stretch or compress it as needed, and swap in your preferred resource for each slot.

Before you start

Refresh the cross-sectional anatomy for the region on *e-Anatomy*. Read the approach box for that subspecialty, and work through one introductory module or chapter (*Radiology Masterclass*, the *Queen's modules*, or the relevant Herring's chapter). This might take only a couple of evenings, but it may be the highest-yield time you will spend.

Week one

Start your daily review habit early. Anki, or a daily *Radiopaedia* case, goes a long way. On every study you are shown, run the search pattern deliberately and out loud where you can. Look up each new diagnosis the same day you see it. Expect to feel slow at the beginning, and be proud of the progress you are making.

Week two

Keep the daily review running. Shift your active time toward committing to reads before you see the report: interactive cases on *Navigating Radiology*, a *Radiopaedia playlist* for your region, *One Night in the ED* if you are on an acute care rotation, or timed *Radiology Cafe* mock exams. Use *Radiology Assistant* for any classification system you have been reciting without really understanding.

If you only have a few evenings

Do the anatomy refresh and pick one approach resource. Skip everything else. Arriving able to name the structures and move through a study in a fixed order is worth more than arriving having half-read any number of textbooks.

💡 **Pro-tip:** When you have little time, protect the daily review. It defends what you have already learned, and it is the hardest ingredient to restart once you drop it.

Section III: By Subspecialty

Each subspecialty section follows the same shape: (1) a **Core Knowledge Checklist** of what you should be able to do by the end, (2) an **Approach** box giving a concrete search pattern for that region, (3) **Recommended Resources**, and (4) a short **Three Pillars** map showing how to combine the general resources from Section I with the subspecialty-specific ones here.

A. Abdominal Radiology

Core Knowledge Checklist

By the end of this rotation, you should be able to:

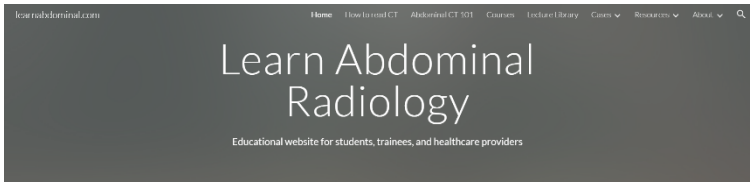
- Describe a systematic approach to reading abdominal/pelvic CT (solid organs, bowel, vasculature, free fluid/air, bones).
- Recognize classic appearances of common acute abdomen pathology (appendicitis, diverticulitis, bowel obstruction, free air).
- Understand basic liver lesion characterization and when further workup (e.g. MRI, biopsy) is indicated.

- Be comfortable describing findings on abdominal ultrasound for common indications (gallbladder, kidneys, RUQ pain).

Approach: Abdominal and Pelvic CT

Two passes. An outside-in sweep first, then a systematic organ-by-organ read. The first pass catches what you would otherwise scroll straight past and the second is where the diagnosis usually lives.

- **Outside-in first:** body wall and soft tissues, then bones (spine, ribs, pelvis, hips), then the lung bases, then the peritoneal and retroperitoneal spaces for free fluid, free air, or fat stranding. These are the classic misses.
- **Solid organs, in a fixed order:** liver, biliary tree and gallbladder, spleen, pancreas, adrenals, kidneys and ureters, bladder, reproductive organs. Same order every time.
- **Bowel, followed linearly through:** stomach, duodenum, small bowel, colon, rectum, assessing calibre and wall thickness, and, where there is dilatation or obstruction, hunting for the transition point.
- **Vasculature:** aorta, IVC, portal and mesenteric vessels.
- **Nodes:** mesenteric, retroperitoneal, pelvic.
- **Then change planes.** Coronals are frequently where an obstruction transition point or a subtle collection of free air becomes obvious after being invisible on axials.
- **Know your contrast phase.** What you are entitled to say about a liver lesion depends entirely on whether you are looking at arterial, portal venous, or delayed images.



Recommended Resources

Learn Abdominal Radiology

FREEMIUM ●●○ (Mid-Rotation)

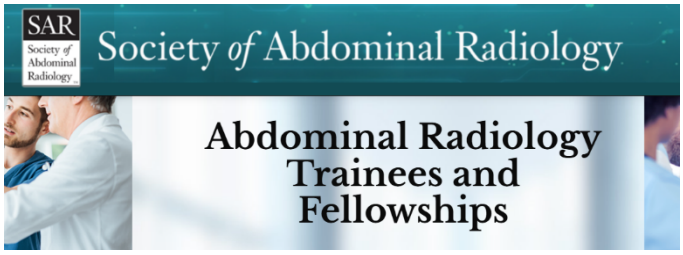
A YouTube-linked teaching resource developed by an academic abdominal radiologist, offering short video lessons and scrollable teaching cases. Content generally targets residents and fellows but is approachable for a motivated student.

How to use it: Start with the free preview chapter and YouTube channel content to gauge fit. Use scrollable cases actively by pausing and generating your own differential before continuing.

Pairs well with: *e-Anatomy* for cross-sectional correlation and *STATdx* for deeper differential workup on cases that stump you.

Free vs. paid at a glance:

Free tier includes	Paid tier unlocks
Free preview chapter (pancreatitis); video content	Full case and course library



Society of Abdominal Radiology (SAR) Fellow Lecture Series

MEMBER ACCESS ●●● (Residency-Ready)

The Program Directors in Abdominal Radiology fellow lecture series, covering focused subspecialty topics such as rectal

cancer MRI, MRI of endometriosis, splenic imaging and intervention, and AI in medicine and science. Access runs through an SAR account.

How to use it: This one is aimed well above the student level, so treat it as a look ahead rather than a study tool. If a case on your rotation captures your interest, a single lecture here will show you how the subspecialty thinks about it.

Putting It Together: Your Three Pillars and a Study Flow

Anatomy: *e-Anatomy* abdomen and pelvis modules. Segmental liver anatomy, the mesenteric vessels, and the retroperitoneal compartments are the ones worth knowing cold before you start.

Approach: the two-pass method above, run identically on every study until you stop having to think about the order.

Pathophysiology: *Learn Abdominal Radiology* for teaching cases, *Radiopaedia* for anything that comes up on rounds, and *Radiology Assistant* when you need LI-RADS or another structured reporting system explained rather than just listed.

In week one, watch the free preview content and identify your knowledge gaps. Mid-rotation, work through scrollable cases actively, cross-referencing anatomy on *e-Anatomy* when you lose your bearings, and consider running the abdominal *Radiopaedia playlists* alongside them. By the end, you should be able to narrate a structured abdominal CT read out loud without prompting.

B. MSK Radiology

Core Knowledge Checklist

By the end of this rotation, you should be able to:

- Apply a systematic approach to reading plain films (alignment, bones, cartilage, soft tissue).
- Recognize common fracture patterns and appropriate classification terminology.
- Describe the basics of joint effusion, arthritis patterns, and when MRI is the next step.
- Localize and describe common MSK MRI findings (menisci, rotator cuff, ligaments) in plain language.

Approach: MSK Plain Films (ABCs)

Start with adequacy: you want at least two views, ideally orthogonal, and the joint above and below. A fracture invisible on one view is frequently obvious on the other, which is exactly why one view is never enough.

- **Alignment:** follow the cortical lines and the normal arcs of the joint. A broken arc is often the only sign of a subtle dislocation.
- **Bone:** trace every cortex all the way around, looking for a break in the line, a step, or a change in density (i.e., lucency or sclerosis).
- **Cartilage and joints:** joint space width and symmetry, erosions, subchondral change.
- **Soft tissue:** effusions (the elbow fat pads being the classic example), swelling, gas, radiopaque foreign bodies. Soft-tissue signs routinely point you back to a fracture you have just scrolled past.
- **Then the edges.** The corners of the film and the limits of the coverage, deliberately, before you call it done.

Recommended Resources

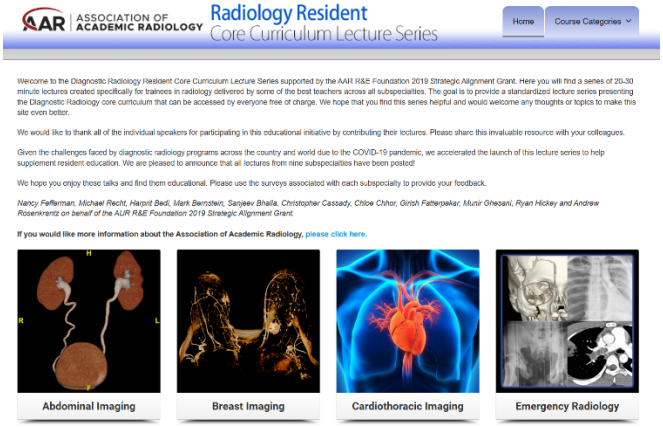


Radiology Masterclass MSK Modules
FREE ●○○ (Starting Out)

The MSK-specific modules within *Radiology Masterclass*, covering plain film trauma interpretation with guided self-assessment.

How to use it: Complete these modules before your rotation starts. They are short enough to finish in an evening and give you the vocabulary you will need on day one.

Pairs well with: *MSK Radiology Core Lectures* for deeper, lecture-format follow-up.



MSK Radiology Core Lecture Series
FREE ●●○ (Mid-Rotation)

A free, open-access lecture series presented by the International Skeletal Society (ISS) and Society of Skeletal Radiology (SSR), covering core MSK topics in recorded lectures from leading subspecialists. Part of the larger *Radiology Resident Core Lecture Series* presented by the Association of Academic Radiology.

How to use it: Treat this like a mini rotation curriculum. Pick the three or four lectures most relevant to the cases you are seeing that week rather than working through every available topic.

Putting It Together: Your Three Pillars and a Study Flow
Anatomy: *e-Anatomy* for the joint you are seeing that week, then *Radiology Cafe* mock exams to find out whether it stuck.

Approach: ABCs on every plain film, out loud where you can get away with it.

Pathophysiology: *Radiology Masterclass* MSK modules for fundamentals, then the *MSK Core Lecture Series* for depth on specific topics, with *Radiopaedia* for fracture classification systems as they come up.

Do the *Radiology Masterclass MSK modules* before the rotation begins to establish plain film fundamentals. During the rotation, pull the two or three most relevant lectures from the *MSK Radiology Core Lecture Series* each week based on what you are seeing, rather than working through the series in order.

C. Interventional Radiology
Core Knowledge Checklist
By the end of this rotation, you should be able to:

- Describe the range of procedures IR performs and how the specialty differs from diagnostic radiology day-to-day.
- Understand basic vascular access techniques and sites, and ultrasound-guided procedure principles.

- Familiarize yourself with basic IR equipment and the differences between them (wires, sheaths, catheters).
- Recognize common IR consult scenarios (drainage, embolization, venous access) and the pre-procedure workup involved.
- Speak to the clinical, longitudinal-care side of IR.

Approach: Working Up an IR Case

IR is the one rotation where the pillar structure shifts. There is still a study to read, but the question you are answering is not only "what is the finding". Instead, it shifts to "can we do something about it, and how do we get there safely." Approach each consult in this order.

- **Why is this patient here?** The stated indication, and whether the imaging actually supports it.
- **Is there a less invasive option?** And has it been tried? This is a question attendings may ask you.
- **Pre-procedure workup:** coagulation status and anticoagulation hold, renal function and contrast considerations, antibiotics, sedation plan, consent.
- **Build the road map.** Review the diagnostic imaging and plan the access route and target *before* you go into the room.
- **Anatomy of the access:** know exactly what lies between the skin and the target, and what you must not hit.
- **Afterwards:** what complications you are watching for, what follow-up is needed, and who owns it. This longitudinal piece is a large part of what makes IR a clinical specialty.

Recommended Resources



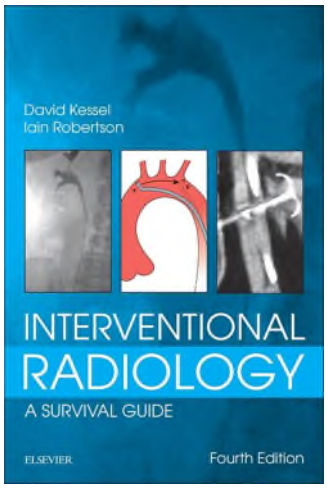
Learn IR

FREE ●●● (Residency-Ready)

A free site organized by resident training level, giving structured topic overviews across the breadth of IR practice. It is written for residents but very readable as a student trying to get oriented quickly.

How to use it: Start with the earliest-level content regardless of your own training stage, then push into the higher-level material to make the most of your time in IR.

Pairs well with: *NYSORA* for procedural and anatomical depth on specific access techniques mentioned here.



Kessel & Robertson's Interventional Radiology: A Survival Guide

PAID ●●● (Residency-Ready)

A widely used practical handbook covering IR procedures, indications, and periprocedural management in a concise, high-yield format. Closer to a field manual than a comprehensive textbook.

How to use it: Use it during an IR elective the way a clerk uses a pocket medicine handbook: quick lookups before and after cases rather than cover-to-cover reading.

Pairs well with: *Learn IR* for the broader context around procedures covered in the handbook.

NYSORA

FREEMIUM ●●○ (Mid-Rotation)

Best known for regional anesthesia and ultrasound-guided pain procedures, this site's free educational content on ultrasound-guided technique and vascular anatomy transfers directly to IR access procedures.



How to use it: Use it specifically for ultrasound-guided access technique and relevant anatomy, not as a general IR resource. Its core focus is anesthesiology and pain medicine.

Free vs. paid at a glance:

Free tier includes	Paid tier unlocks
Core educational articles and technique guides	Select premium course content

Putting It Together: Your Three Pillars and a Study Flow

Anatomy: vascular anatomy is effectively the whole game. *e-Anatomy* for the arterial tree, and *NYSORA* for the sonographic anatomy of the common access sites.

Approach: the consult workup above. Plan the route before you scrub.

Pathophysiology: *Learn IR* for scope of practice and indications, and Kessel & Robertson for periprocedural management once you are in the middle of a list.

Before an IR elective, read the overviews on *Learn IR* to get oriented on scope of practice. During the elective, keep Kessel & Robertson's *Interventional Radiology: A Survival Guide* handy for quick pre-case lookups, and use *NYSORA* when a case involves an access technique you want to understand more deeply.

D. Emergency Radiology

Emergency radiology is where many students get their first real exposure to reading under time pressure, and it is one of the most transferable rotations you can do. We do not yet have a contributor-written checklist for it, but two resources will take you a long way.

Emergency Radiology Core Lectures

FREE ●●○ (Mid-Rotation)

The emergency radiology stream of the Association of Academic Radiology's Radiology Resident Core Curriculum Lecture Series is equipped with roughly 29 lectures grouped into head and neck trauma, thoracic trauma, abdominal trauma, pelvic trauma, and multi-system trauma, alongside acute non-trauma topics such as pulmonary embolism, bowel obstruction, and acute pancreatitis.

How to use it: Pick the two or three lectures matching the injuries and presentations you are actually seeing on shift. Watching the relevant lecture the evening after a case is one of the most efficient study habits available to you.

Pairs well with: *One Night in the ED* for scrollable practice on the same material, and *Radiopaedia trauma playlists* for volume.

💡 **Pro-tip:** Before your first ED shift, make sure you can confidently identify free air, free fluid, and a pneumothorax on every modality you might see them on. Those three findings account for a disproportionate share of what actually changes management overnight.

E. Subspecialties We Are Still Building

The sections below do not yet have contributor-written checklists or curated resource lists, and we would love your help filling them in. In the meantime, the *Radiology Resident Core Lecture Series*, a free multi-society curriculum supported by the AAR R&E Foundation, covers every one of them in 20-30-minute lectures aimed squarely at trainees. It is the best free starting point we know of for a subspecialty this guide has not reached yet.

💡 **Pro-tip:** The three pillars still apply. Refresh the regional anatomy first, ask your staff on day one what search pattern they use for that modality, and lean on *Radiopaedia* and *Radiology Assistant* for the pathology as it comes up.

Neuroradiology

Start with the Neuroradiologic Imaging lectures from the *Radiology Resident Core Lecture Series* (free), and the five-part neuroradiology module from Queen's University if you would like something shorter to read first.

For head and neck specifically, Learning Head and Neck Radiology is an excellent free site and one of the few that treats this notoriously anatomy-dense region as something a learner can build up to. Its "How to Read a Neck CT" walkthrough gives you a search pattern, and its anatomy sections on the larynx, pharynx, oral cavity, and nodal levels are likely the material you will be quizzed on.

Start with the anatomy sections rather than the cases, since almost every head and neck call comes down to knowing precisely which space a lesion sits in.

Chest / Thoracic Radiology
Start with the Cardiothoracic Imaging lectures from the *Radiology Resident Core Lecture Series* (free). The chest X-ray modules from Queen's and the chest X-ray *Radiopaedia playlists* make a good introductory pairing.

Breast Imaging
Start with the Breast Imaging lectures from the *Radiology Resident Core Lecture Series* (free), then use *Radiology Assistant* for BI-RADS.

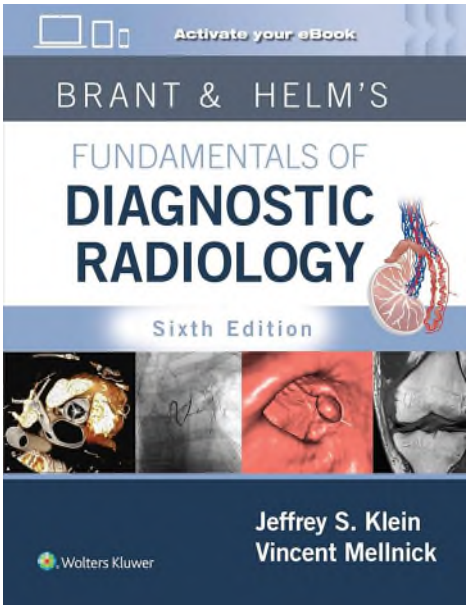
Pediatric Radiology
Start with the Pediatric Imaging lectures from the *Radiology Resident Core Lecture Series* (free).

Nuclear Medicine
Start with the Nuclear Medicine lectures from the *Radiology Resident Core Lecture Series* (free).

Rotating through one of these? We would genuinely love to hear from you. Reach out to your CAR MSN rep or use the form in **Appendix E** *and we will build the section with you.*

Appendix A: Bonus - Residency-Level Texts
A word of reassurance first: **nobody expects a medical student to have read these.** They are comprehensive residency reference texts, and several residents who reviewed this guide made the point that seeing them in the main resource list was more discouraging than helpful. We agree, so we have placed them here.

Both are excellent, and both are worth knowing about, either because you have a specific question that the introductory resources do not answer, or because you are heading into residency and want to know what is on the shelf.

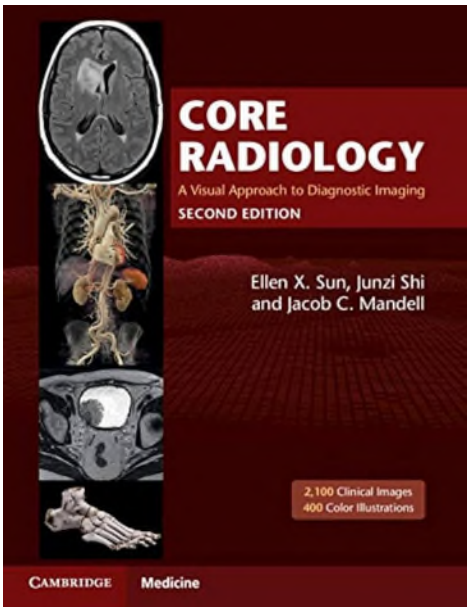


Brant and Helms' Fundamentals of Diagnostic Radiology
PAID ●●● (Residency-Ready)

The most comprehensive general radiology textbook aimed at trainees, covering every organ system and modality in depth. It is dense, and it is not a cover-to-cover read for a two-week elective. It is, however, an excellent reference when you want the full explanation behind a finding.

How to use it: As a reference, not a primary text. Look up the chapter relevant to your current rotation when a case or lecture raises a question your introductory resources do not fully answer. Most commonly read gradually across residency rather than in any one block.

Sun, Shi, & Mandell's Core Radiology: A Visual Approach to Diagnostic Imaging (with companion Anki deck)
PAID ●●● (Residency-Ready)



A step up in depth from Herring's, organized by organ system with an emphasis on classic imaging findings and differentials. Widely used as a bridge between introductory and resident-level radiology texts, and a common companion through the early years of residency.

How to use it: Best once you have the basics down and want more depth per topic. The associated community Anki deck is built directly off the book's high-yield findings (see *Appendix B*).

Appendix B: Setting Up Community Anki Decks

Several resources in this guide (Herring's *Learning Radiology* and Sun, Shi, & Mandell's *Core Radiology*) point to shared Anki decks. Because deck creators generally cannot legally redistribute copyrighted textbook images inside the shareable deck file, images usually ship separately and have to be added to Anki's media folder before cards will display them correctly. There are two ways to handle this. Pick whichever fits you.

Which Path Should You Use?

This is principally a free-versus-paid decision. AnkiHub *Core* and *Premium* cost a subscription but automate image syncing and future updates. The manual route is free but requires a bit of manual labour and will not auto-update when the deck creator revises it.

	With AnkiHub	**Without AnkiHub (Manual)**
Cost	Paid subscription (*Core* and *Premium* tiers)	Free
Setup effort	Lower: subscribe once and sync handles the rest	Higher: one-time manual media transfer
Images	Bundled automatically through AnkiHub's sync	Downloaded separately from MEGA and copied in by hand
Future updates	Pulled automatically when the deck creator revises it	You re-download and re-import manually

Path 1 - With AnkiHub

1. Create an AnkiHub account and install the AnkiHub add-on in Anki (Tools > Add-ons > Get Add-ons, using the code from AnkiHub's site).
2. Find the deck's subscription page (Herring's *Learning Radiology* and Sun, Shi, & Mandell's *Core Radiology*).
3. Subscribe to the deck (*Core* or *Premium* tier, depending on what you want) from within AnkiHub or the add-on.
4. Sync inside Anki. Images bundle automatically through AnkiHub's own sync.
5. Open a few cards to confirm images render correctly.

Path 2 - Without AnkiHub

1. Download the shared .apkg deck file (Herring's *Learning Radiology* and Sun, Shi, & Mandell's *Core Radiology*).
2. Import it into Anki: File > Import, then select the .apkg file.

3. Download the separate image archive from MEGA (Herring's *Learning Radiology*). Unfortunately, the archive associated with Sun, Shi, & Mandell's *Core Radiology* on MEGA has been taken down.
4. Locate your Anki media folder. The easiest way is in Anki: go to Tools > Check Media, and the dialog shows the folder path. Typical defaults:

- Windows: %APPDATA%\Anki2\<ProfileName>\collection.media
- Mac: ~/Library/Application Support/Anki2/<ProfileName>/collection.media
- Linux: ~/.local/share/Anki2/<ProfileName>/collection.media

5. Extract the MEGA archive and copy all image files directly into that collection.media folder, flatly, with no subfolders. Anki matches images by filename, so they must sit directly in that folder.
6. Restart Anki, then run Tools > Check Media again to confirm nothing is still missing.
7. Open a few cards to confirm images now render.

Verifying It Worked

Run Tools > Check Media in Anki. It flags any card referencing an image file that is not present, which is the fastest way to catch a missed or misnamed file.

💡 **Pro-tip:** *Do one more sync after adding images locally (Path 2) before you check your deck on your phone. Mobile Anki will not show the images until they have been uploaded to AnkiWeb through a sync, even if they already display correctly on your computer.*

A Note on Scope

This walkthrough is written generically so that any future CAR MSN contributor can point to it for whatever community deck they add. Swap in the relevant AnkiHub, Reddit, and MEGA links for the deck in question. The steps remain the same.

Appendix C: Master Resource Index

Every resource in this guide, alphabetically, with its pillar and tags at a glance. The **Pillar** column tells you which of the three questions each resource is best at answering.

Resource	Cost	Difficulty	Pillar
ACOREdu	Free	●●●	Breadth
Brant and Helms' *Fundamentals of Diagnostic Radiology*	Paid	●●●	Bonus (Appendix A)
CAR CPD	Paid	●●●	Breadth
e-Anatomy	Freemium	●○○	Anatomy
Emergency Radiology Core Lectures	Free	●●○	Subspecialty (EM)
Herring's *Learning Radiology*	Paid	●○○	Approach (2A)
Kessel & Robertson's *Interventional Radiology: A Survival Guide*	Paid	●●●	Subspecialty (IR)
Learn Abdominal Radiology	Freemium	●●○	Subspecialty (Abdo)
Learn IR	Free	●●●	Subspecialty (IR)
Learning Head and Neck Radiology	Free	●●○	Subspecialty (Neuro/H&N)
MSK Radiology Core Lecture Series	Free	●●○	Subspecialty (MSK)
Navigating Radiology	Freemium	●○○	Approach (2B)
NYSORA	Freemium	●●○	Subspecialty (IR)

Resource	Cost	Difficulty	Pillar
One Night in the ED	Free	●●○	Approach (2B)
Queen's Undergraduate Radiology Resources	Free	●○○	Approach (2A)
Radiology Assistant	Free	●●○	Pathophysiology
Radiology Cafe Mock Anatomy Exams	Free	●●○	Anatomy
Radiology Masterclass	Free	●○○	Approach (2A)
Radiology Resident Core Lecture Series	Free	●●○	Subspecialty (all)
Radiopaedia	Freemium	●○○	Pathophysiology
Radiopaedia Educational Playlists	Free	●●○	Approach (2B)
Rodrigues & Qureshi's *The Unofficial Guide to Radiology*	Paid	●○○	Approach (2B)
Society of Abdominal Radiology Fellow Lectures	Member access	●●●	Subspecialty (Abdo)
STATdx	Paid	●●○	Pathophysiology
Sun, Shi, & Mandell's *Core Radiology*	Paid	●●●	Bonus (Appendix A)

Appendix D: Glossary of Common Abbreviations

- AAR: Association of Academic Radiology
- BI-RADS: Breast Imaging Reporting and Data System
- CAIR: Canadian Association of Interventional Radiology
- CAR: Canadian Association of Radiologists
- CPD: Continuing Professional Development
- IR: Interventional Radiology
- LI-RADS: Liver Imaging Reporting and Data System
- MSK: Musculoskeletal
- MSN: Medical Student Network
- RFS: Resident and Fellow Section
- SAR: Society of Abdominal Radiology
- TI-RADS: Thyroid Imaging Reporting and Data System

Appendix E: Tell Us What You Think

This guide only improves if we hear from the people using it. This form takes about five minutes. It is our pleasure to hear your feedback so that we may produce content and programming that is curated to your needs.

References

Textbooks referenced in this guide. Editions are updated periodically, so check for the most current edition, and check your library before purchasing.

1. Herring W. *Learning Radiology: Recognizing the Basics*. 5th ed. Elsevier.
2. Rodrigues MA, Qureshi Z, eds. *The Unofficial Guide to Radiology: Chest, Abdominal and Orthopaedic X-rays, Plus CTs, MRIs and Other Important Modalities*. Unofficial Guides to Medicine.
3. Kessel D, Robertson I. *Interventional Radiology: A Survival Guide*. Elsevier.
4. Klein J, Pohl J, Vinson EN, Brant WE, Helms CA, eds. *Brant and Helms' Fundamentals of Diagnostic Radiology*. 5th ed. Wolters Kluwer.

5. Sun A, Shi J, Mandell JC. *Core Radiology: A Visual Approach to Diagnostic Imaging*. 2nd ed. Cambridge University Press.

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Feedback / How to Contribute

Have a resource, a testimonial, or a subspecialty checklist worth adding? This guide is meant to grow with contributions from students across the country, and the sections we are proudest of started as somebody's offhand suggestion. Fill out the form in **Appendix E**, or reach out to your CAR MSN representative directly at msncoordinator@car.ca.

Disclaimer

Please note that this resource guide is not endorsed by the CAR nor is the CAR benefiting financially in any way from its dissemination.