

Chest X-Ray Interpretation Skills — the Shortest Path to Mastery.

Diagnostic Imaging Simulator



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Diagnostic Imaging Navigator



The most efficient way to learn — by combining two apps

A chest X-ray interpretation training guide for medical students, residents, and young healthcare professionals .

What You'll Gain From This Guide



Efficient Learning Method

The fastest learning cycle, using two apps together



Overcome Weak Points

Pinpoint and reinforce the findings and diagnoses you struggle with



Lasting Retention

Build lasting interpretation skills through repeated practice

This guide isn't a detailed lecture on image interpretation — it teaches you how to learn using two apps together.

Two Apps, Two Roles



Diagnostic Imaging Simulator — simu.Doc

Solve questions. Test your skills.

Answer real questions on the location, findings, and diagnosis of abnormal shadows, and see your interpretation skill measured as a score.



Diagnostic Imaging Navigator — Doc.navi

Look up what you need to know, instantly.

A reading database covering 120 diseases and about 500 cases — search by region, finding, or diagnosis to find case images and explanations.

The Recommended Learning Cycle



Think it through with simu.Doc

1



Make your own diagnosis

2



Check only the findings you're unsure of, in Doc.navi

3



Review similar cases

4



Return to simu.Doc, and repeat

5

Going back to step ① and repeating the cycle is what makes interpretation skill stick.

4 Rules for Learning Efficiently



1

Think it through yourself first

Don't look it up right away — try reading the image yourself first



2

Look up only what you don't know

Doc.navi works just as well for spot-checking a single finding



3

Study normal images too

You can only spot the abnormal once you know the normal



4

Review again and again

Don't stop at one pass — come back to it repeatedly

Your Overall Learning Roadmap



STEP 1

Level Check

Check your current level with simu.Doc Basic



STEP 2

Master the Basic Course

Master all 330 questions, moving back and forth with Doc.navi



STEP 3

Move on to the Practice Course

Build practical skill at your own level



STEP 4

Apply It in Clinical Practice

Keep Doc.navi on hand to maintain your knowledge

STEP 1

Start With a Level Check

Check your current understanding with the "Level Check Test" in simu.Doc Basic.

simu.Doc Basic — Level Check Test Screen

Hello, [User Name]

Home

Record List

Typical exercises by the difficulty level

Specific exercises by the topics

Select the content to learn.

Trial question
This is a trial question. (Total 10 questions)

Total Correct Answer Rate
40%

Select a Difficulty Level

Level Check Test
These are questions to check your chest X-ray level. (20 questions in total)

Total Correct Answer Rate
90%

Select a Difficulty Level

Regions of Abnormal Shadows
Answer regions of abnormal shadows.

You'll view a chest X-ray and select the location of the abnormal shadow, the abnormal finding, and the diagnosis.

Your accuracy rate determines which course you move on to next

RESULT

Your Learning Course, Based on Your Level Check Result



30% or below

Start at Difficulty ★



31–95%

Start at Difficulty ★★



100%

Move on to simu.Doc Practice

Keep practicing "location of abnormal shadow," "abnormal finding," and "diagnosis" until you answer every question on the completion test correctly.

What You'll Learn in the Basic Course

Chest X-ray images are grouped into five areas, and for each you'll build these three skills.



Location of Abnormal Shadow

Find where the abnormality is



Abnormal Finding

Identify what the finding is



Diagnosis

Derive the disease from the finding

THE 5 AREAS OF THE CHEST X-RAY

Lung

Mediastinum

Bone

Soft Tissue

Pleura (Border)

330 Questions

Practice repeatedly to make the knowledge truly stick

Why Use Doc.navi Alongside simu.Doc



With simu.Doc alone...

It's easy to move past a finding you don't understand and keep going.



With Doc.navi...

You can search by region, finding, or diagnosis on the spot, and check related case images too — clearing up confusion right where it happens.

EXAMPLE 1

Looking Up Pneumothorax

① Notice it in simu.Doc



Found an avascular area at the left apex



Select an abnormal region from the following.

Average Correct Answer Rate 50%

hilum

left apex field

rib

lower lung field

Check the Answer

Pneumothorax

Search Doc.navi for the Finding You Noticed in simu.Doc

Reset	Lung	Mediastinum	Bone	Soft tissue	Pleura	Normal case	Case search	Output	
Procedure	ALL	Region	ALL	Basic findings	Explanation	ALL	Diagnosis	2	ALL
posterior-anterior view		L B R	whole lung field		no remarkable findings		Infectious disease		
lateral view		L B R	apex field	1	abnormal shadow		Airway disease		
lateral decubitus view		L B R	upper lung field		ground glass opacity		Neoplastic disease		
		L B R	middle lung field		reticular shadow		Diffuse disease		
		L B R	lower lung field		linear shadow		Pleural disease		
		L B R	hilum		trabecular shadow		Vascular disease		
					consolidation		Congenital abnormality		
					nodular shadow		Other organs disease		
					granular shadow		Others		
					tumor shadow				
					cystic change				
					volume loss				

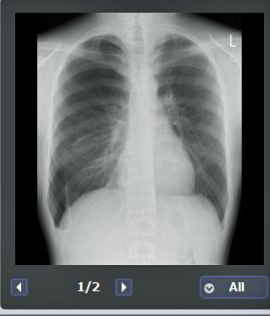
- air-fluid level (1 term(s))
- bronchoectasia (1 term(s))
- bullae (bullae) (1 term(s))
- calcification (1 term(s))
- granular shadow (1 term(s))
- hyperlucent (1 term(s))
- hypolucet area (1 term(s))
- reticular shadow (1 term(s))

Diagnosis :

- ☒ pneumothorax (8 term(s))
- ☐ old tuberculosis (7 term(s))
- ☐ lung cancer (5 term(s))
- ☐ inflammatory change (5 term(s))
- ☐ pulmonary emphysema (2 term(s))
- ☐ pneumonia (2 term(s))
- ☐ metastatic lung cancer (2 term(s))

Case No. 000026 Gender Man Age 19

Check the Explanation Report quotation



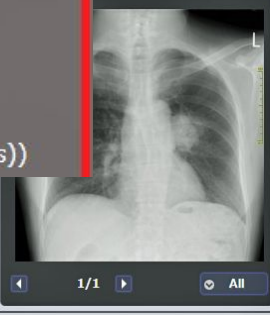
1/2 All

- In posterior-anterior view, **avascular area** is found in **right whole lung field(lateral)**. Pneumothorax is considered.
- In posterior-anterior view, **trabecular shadow** is found in **left apex field**. Inflammatory change is considered.

Fixed diagnosis
Pneumothorax

Case No. 000116 Gender Man Age 61

Check the Explanation Report quotation



1/1 All

- In posterior-anterior view, **5cm-sized lobulated tumor shadow** is found in **left middle lung field**. Primary lung cancer is considered.
- In posterior-anterior view, **avascular area** is found in **left apex field**. Left pneumothorax is considered.

Fixed diagnosis
Primary lung cancer, Left pneumothorax

Select "apex" → and you can see at a glance that pneumothorax occurs frequently there

EXAMPLE 2

Working Backward From Diagnosis to Region and Finding



Select "Pleural disease", then select "Pneumothorax"

Search by diagnosis in Doc.navi



Check the Related Findings and Regions

See characteristic findings like "avascular area" listed at a glance



View Images via Case Search

Check real, similar case images

For a deeper understanding of the disease, refer to the "Disease Explanation" as needed.

Pneumothorax Cases, All on One Screen

With Doc.navi, you can understand the case images for each disease.

The screenshot shows the Doc.navi interface with the following components:

- Top Bar:** Reporting, Case search result, Disease explanation, Make case, Exit from Doc.navi.
- Navigation Bar:** CHEST - CR, ABDOMEN - US, 100%, Help, Settings.
- Filter Bar:** Reset, Lung, Mediastinum, Bone, Soft tissue, Pleura, Normal case, Case search (3), Output.
- Main Table:**

Procedure	ALL	Region	ALL	Basic findings	Explanation	ALL	Diagnosis	ALL
posterior-anterior view		L B R	whole lung field		no remarkable findings		Infectious disease	
lateral view		L B R	apex field		abnormal shadow		Airway disease	
lateral decubitus view		L B R	upper lung field		ground glass opacity		Neoplastic disease	
		L B R	middle lung field		reticular shadow		Diffuse disease	
		L B R	lower lung field		linear shadow		Pleural disease (1)	
		L B R	hilum		trabecular shadow		pneumothorax (2)	
					band like shadow		Vascular disease	
					consolidation in diffuse		Congenital abnormality	
					hypolucent area		Other organs disease	
					high density area		Others	
					consolidation			
					nodular shadow			
					granular shadow			

Even for the same disease, each case looks slightly different. Comparing many images helps reveal the true nature of the finding.



Understand by Comparing Case Images

See at a glance the connection between apex (8 cases) and avascular area (15 cases)

Display cases

CHEST CR / Lung

Procedure :

- posterior-anterior view (15 term(s))
- lateral view (1 term(s))

Region :

- apex field (8 term(s))
- upper lung field (6 term(s))

Region :

- apex field (8 term(s))
- upper lung field (6 term(s))
- whole lung field (6 term(s))

Basic findings :

- avascular area (15 term(s))
- dull (2 term(s))
- consolidation (2 term(s))
- linear shadow (2 term(s))

Basic findings :

- avascular area (15 term(s))
- dull (2 term(s))
- consolidation (2 term(s))

Case No. 000008 Gender Man Age 21

Check the Explanation Report quotation

In posterior-anterior view, **avascular area** is found in **left apex field**.
In lateral view, **linear shadow** is found in **apex field**.
Pneumothorax is considered.

Fixed diagnosis
Left spontaneous pneumothorax

Case No. 000026 Gender Man Age 19

Check the Explanation Report quotation

In posterior-anterior view, **avascular area** is found in **right whole lung field(lateral)**.
Pneumothorax is considered.
In posterior-anterior view, **trabecular shadow** is found in **left apex field**.
Inflammatory change is considered.

Fixed diagnosis
Pneumothorax

Doc.navi — List of Pneumothorax Cases (Actual Case Images)



Common thread: the key is noticing the "avascular area" at the left apex

Why Studying Normal Images Matters

To notice what's "abnormal," you first need to know what's "normal."



Check Normal Cases in Doc.navi

Doc.navi includes many case images with "no notable findings." Comparing them teaches you the natural range of normal variation.

Next page: let's look at an actual normal case screen

Doc.navi — "Normal Case" Display

Display cases

CHEST CR / Lung

Procedure :

Region :

Basic findings : **no remarkable findings**

no remarkable findings (42 term(s))

Diagnosis :

Basic findings : **no remarkable findings**

no remarkable findings (42 term(s))

Case No. **000191** Gender **Woman** Age **51**



Report quotation

- In the lung no remarkable findings.
- In the mediastinum no remarkable findings.
- In the bone no remarkable findings.
- In the soft tissue no remarkable findings.
- In the pleura (periphery) no remarkable findings.

Fixed diagnosis

Not particular

Case No. **000202** Gender **Woman** Age **39**



Report quotation

- In the lung no remarkable findings.
- In the mediastinum no remarkable findings.
- In the bone no remarkable findings.
- In the soft tissue no remarkable findings.
- In the pleura (periphery) no remarkable findings.

Fixed diagnosis

Not particular

Basic Finding: you can review 42 cases marked "no notable findings"

Make Use of the YouTube Lecture



Diagnostic Imaging Online Course

Let's understand normal chest X-ray images"



Scan to watch

<https://www.youtube.com/watch?v=rB4OsrK3cc>



Elements of a Chest X-Ray



Divisions of the Lung Fields



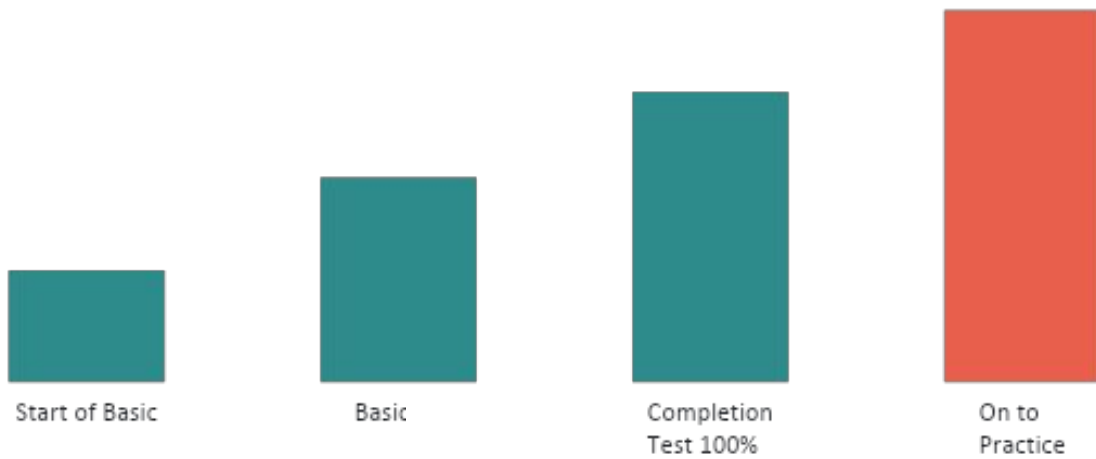
Normal Appearance and Borders

Combining the video with Doc.navi's normal cases will deepen your understanding even further.

LEVEL UP

Stepping Up to the Practice Course

Once you answer every question correctly on the simu.Doc Basic completion test, you're ready to step up to the Practice Course.



Even in the Practice Course, check any finding you're unsure of in Doc.navi as you go.

TARGETS

Learning Goals by Level

NUMBER OF QUESTIONS IN SIMU.DOC PRACTICE

Introduction	Beginner	Intermediate	Advanced
180	340	360	72

TARGET LEVEL



Medical Students

Introduction & Beginner



Medical Doctors

Introduction, Beginner & Intermediate



Specialists

All levels (through Advanced)

A Review Method to Help You Remember



Even once you've mastered it, you'll forget cases you don't regularly encounter.



If you have weak areas, periodically re-check your understanding with simu.Doc.



Keep Doc.navi close at hand, and refer to it any time you're unsure.

120 diseases and about 500 cases, ready to reference any time

Using It in Everyday Clinical Practice



Between patients, use it like this

If you're not confident about a finding in the case in front of you, open Doc.navi right there to check. You can also confirm the diagnostic evidence right away.



Clinical Practice



Doc.navi

Filling in the gaps in your knowledge as they come up, case by case — that's what builds your everyday interpretation skill.

SUMMARY

Use the Two Apps, Back and Forth.



Think it through in simu.Doc, and make your own diagnosis



Check only the findings you're unsure of, in Doc.navi



Deepen your understanding by reviewing similar cases



Repeat, and make the knowledge stick

This learning cycle will change your interpretation skill starting tomorrow.

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