

Free book sample

Understanding Respiratory Care

Jason Shannon | Medical Education Dynamics LLC

Browse the contents and an opening Patient Evaluation excerpt. This sample preserves original book pages 1, 2, 4 and 5.

The full guide covers Patient Evaluation and Chapters 1-12, with worked examples, figures, references and a source list.

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RESPIRATORY EDGE

Understanding Respiratory Care

Complete Student Study Guide

Patient Evaluation chapter + Chapters 1-12

Learn the concept. Work through the example.
Connect the findings to the next clinical step.

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BREATHE. LEARN. EXCEL.

Your guide at a glance

Start with Patient Evaluation, then move through Chapters 1-12. Each lesson gives you a clear goal, a short explanation, and practical ways to connect the idea to a patient.

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Blue boxes show worked examples. **Yellow boxes** mark points to remember. Chapter names in the contents and the PDF bookmarks let you jump directly to a topic. References are together at the back.

A symptom is something the patient reports, such as chest tightness. A sign is something you observe or measure, such as retractions or a respiratory rate of 32. An interpretation explains those findings. Keep these categories separate so an early guess does not become a false fact.

Check identity before using a result. Then check its time, source, units, and treatment conditions. A blood gas collected before oxygen was started describes a different situation from a saturation measured afterward. A copied note may describe yesterday's condition rather than the patient's current breathing.

A useful measurement must have a believable signal. Look for motion, disconnected tubing, the wrong sensor, or a number that conflicts with the examination. Compare repeated measurements taken under similar conditions. Verification should happen alongside needed support when the patient looks ill.

Example: A patient is talking comfortably, but the oximeter suddenly reads 72% with an erratic pulse signal after hand movement. Assess breathing and circulation, check the sensor and signal, and obtain a reliable reading. The weak signal makes artifact plausible; it does not prove **oxygenation** is normal.

* Important study point

Remember: Do not choose the newest or most dramatic number automatically. Report what you saw, what the patient said, what was measured, and what remains uncertain. In a TMC case, select further assessment when information is missing, but recognize when instability makes immediate support the priority.

Symptoms

What you will learn

- Describe dyspnea, orthopnea, cough, sputum, and chest discomfort.
- Use onset and change over time to guide the next assessment.
- Recognize symptom patterns that need urgent attention.

Dyspnea is subjective breathing discomfort, often described as air hunger, chest tightness, or increased respiratory effort. Obtain the patient's description whenever possible. Respiratory rate measures breathing frequency but does not establish the severity of **dyspnea** or anxiety.

Ask when the problem began, what the patient was doing, and whether it is constant or comes in episodes. Compare sudden change over minutes with worsening over several days. Ask what makes it better or worse and whether a usual treatment still helps.

Orthopnea is breathlessness when lying flat that improves when upright. Paroxysmal nocturnal **dyspnea** means waking from sleep with severe breathlessness. These symptoms can support a heart-failure evaluation, but they are not a diagnosis by themselves. Ask about swelling, weight change, and usual sleeping position.

Describe cough as dry or productive, meaning it brings up sputum. Record the amount, thickness, color, odor, and blood. Hemoptysis is coughing blood from the respiratory tract. Sputum color alone does not establish bacterial infection. New blood, severe chest pain, or rapid deterioration deserves prompt assessment.

Example: A patient usually walks to the mailbox but now stops after a few steps and needs three pillows to sleep. The important answer is worsening exercise tolerance plus orthopnea. Compare **oxygenation**, breath sounds, fluid balance, and circulation rather than recording only that the patient is short of breath.

* Important study point

Remember: Ask about symptom intensity and its effect on daily life. A patient who has quietly reduced activity may understate disease burden. Do not dismiss distress as anxiety before assessing respiratory and circulatory causes; anxiety may be a response to frightening breathing difficulty.

History

What you will learn

- Collect relevant lung, heart, medication, and exposure history.
- Calculate cigarette pack-years from supplied values.
- Compare current activity and support with the usual baseline.

Baseline means the patient's usual condition before the current problem. Ask about normal walking distance, stairs, sleep, cough, oxygen use, and help with daily activities. A change from baseline often reveals deterioration more clearly than comparison with another person's activity level.

Review asthma, **COPD**, pneumonia, heart failure, sleep apnea, blood clots, neuromuscular disease, surgery, and prior respiratory failure. Previous intubation or intensive-care admission during an asthma attack is especially important history. Ask about family lung disease and previous test results rather than assuming every episode has the same cause.

Ask directly and without judgment about cigarettes, vaping, smoke, dust, chemicals, mold, birds, and workplace exposures. Pack-years describes cigarette exposure: packs smoked per