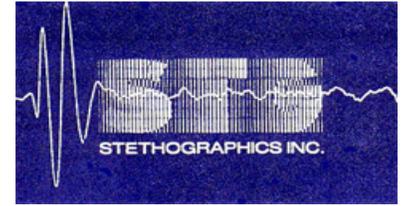


# Stethographics

## Learning Lung Sounds Pocket Edition

*A Pocket PC multimedia reference*



### Overview

Lung sounds provide important information in the diagnosis and monitoring of the clinical course of patients with lung disorders. This learning and reference guide is intended for everyone interested in clinical medicine, particularly students and residents in medicine, nursing and respiratory care, as well as those in physician assistant, emergency care, and nurse practitioner programs. This Pocket Edition provides healthcare workers with a quick, portable guide to important lung sounds, their mechanism of production and the locations where they are commonly heard. By using this virtual auscultation guide, users will be able to identify abnormal lung sounds more quickly and accurately.

### Key Features

This Pocket PC is a quick and portable guide to understanding these important lung sounds:

- Bronchial
- Vesicular
- Fine Crackles
- Coarse Crackles
- Wheezes
- Squawks
- Rhonchi
- Pleural Rub
- Stridor

These sounds can be rapidly accessed from the software's opening page. Each sound is first described followed by the sound's recording. These lung sounds are played and visualized simultaneously, which allows one to quickly learn to associate abnormal lung sounds with their characteristic visual patterns.

Time amplitude plots of the sounds are also displayed as shown in the illustration. As the sound is played, a cursor moves across the waveform, providing a visual complement to listening. Time amplitude plots of lung sounds are presented in two ways: expanded or unexpanded. The unexpanded method is similar to a phonocardiogram time amplitude display. This allows an overall view of the acoustic characteristics in real time. In the time expanded analysis the time or x-axis is stretched out so that details of the acoustic phenomena can be examined more carefully. Time domain plots are illustrated in both the time unexpanded and time expanded modes.

Additional sections focus on differentiating Fine vs. Coarse Crackles and Wheezes vs. Rhonchi. These pages include sound and visual comparisons and text descriptions.

**Coarse Crackles**

-- These are intermittent "bubbling" sound.  
-- Laennec compared these sounds to the sound of water being poured from a bottle.  
-- They are caused by airway opening and secretions in airways.

PLAY

INSPIRATION  
EXPIRATION

4.2 sec  
0.5 sec  
0.1 sec

As noted in the [fine crackles description](#), coarse crackles are in general lower pitched, less intense and of longer duration than fine crackles.

The most common conditions associated with coarse crackles are congestive heart failure and pneumonia.

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