

# PneumoSim<sup>tm</sup>

## Digital Breath Sound Simulator

Improve auscultation skills

the key to physical diagnosis

### Teach and Test Auscultation Skills



- 📌 **Normal & Adventitious Sounds** - Presented from a menu of 27 sound programs
- 📌 **Real breath sounds**- Sound components can be added and removed with ease
- 📌 **Adventitious Sounds** - Crackles, wheezes, pleural rubs and muscle noise all presented
- 📌 **Disease conditions** - Lobar, viral, & interstitial pneumonia, emphysema, chronic bronchitis, stridor
- 📌 **Alter Sounds Feature** - change I:E ratio, place sound in any 1/3 of inspiration or expiration, add pause
- 📌 **Create & save lecture protocols** - up to 8 instructors can each have a series of 8 lectures



The PneumoSim is a Digital Breath Sound Simulator that can be added to any existing CardioSim Digital Heart Sound Simulator or used as an independent stand-alone instrument.

Each sound is divided in to several elements so students learn to recognize each sound part - one at time - making complex sounds easier to recognize. The user can manipulate each sound as desired. For example, any adventitious sound can be placed into any 1/3 of the inspiratory or expiratory cycle. Or an adventitious sound can be added to any normal sound. Respiration rates can be changed from 10 to 150 breaths per minute.

The duration of the expiratory cycle can be changed to illustrate mechanical respiration and a pause of varying length can be added to the end of inspiration and/or expiration.

The sounds are selected from a menu. There are 30 different breath sounds presented with all their variations. The display of the sounds can be flat or with an upward/downward ramp as desired.

As with the CardioSim, the PneumoSim allows thin instructor to preprogram lectures saving time and improving the presentation

The PneumoSim is supplied with a patient auscultation system to allow display and recording of patients or students. Filters enable the frequency to be altered and baseline noise reduced.

For more information, uses and updates visit us at [www.cardionics.com](http://www.cardionics.com), or call us at 800-364-5901.

## Sounds included

*Normal vesicular breath sounds*  
*Tracheal breath sounds*  
*Bronchial breath sounds*  
*Bronchovesicular breath sounds*  
*Crackles with bronchovesicular breath sounds*  
*Crackles, fine, medium and coarse*  
*Crackles, very coarse*  
*Wheezes expiratory & inspiratory*  
*Rhonchus (low-pitched wheeze)*  
*Pleural rub*  
*Muscle noise*  
*Pneumonia, lobar*  
*Pneumonia, partial consolidation*  
*Pneumonia, complete consolidation*  
*Pneumonia, viral & influenza*  
*Atelectasis*  
*Interstitial pneumonitis*  
*Pulmonary congestion & edema*  
*Chronic bronchitis*  
*Emphysema*  
*Stridor*  
*Egophony, E to A, normal & abnormal*  
*Spoken voice, 1, 2,3, normal & abnormal*  
*Spoken voice, 99, normal & abnormal*  
*Whispered pectoriloquy, 1, 2,3 normal & abnormal*

## Ordering Information

Cat. No.	Description
718-6200	PneumoSim Digital Breath Soud Simualtor
718-6210	PneumoSim Software for dddition to an existing CardioSim Digital Heart Sound Simulator
718-2700	CardioSim Digital Heart Sound Simulator (console model)
718-2710	CardioSim Digital Heart Sound Simulator (portable model) -
718-2704	CardioSim Digital Heart Sound Simulator (combination - cosole and portable model)

718-7003	SimulScope Bedside Auscultation System
718-9007	SAM, the Student AuscultationManikin
718-9006	SAM Senior, the Student Auscultation Manikin
718-9005	SAM Junior, the Student Auscultation Manikin
718-8500	UTMB/Cardionics Auscultation STS (Self-Teaching Sys;tem)
718-0015	Classroom Infrared Emitter
718-4006	Auditorium Infrared Sound System
718-7040	Heartman Infrared Headphone

### Additional Equipment

718-7700	E-Scope Electronic Stethoscope
718-7030	Pocket Monitor <sup>tm</sup> software for PDA
718-7035	Pocket Monitor software for PC displays, records & measures duration and frequency of murmurs. Playback normal or half speed.

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