INTRODUCTION TO BREATH SOUNDS

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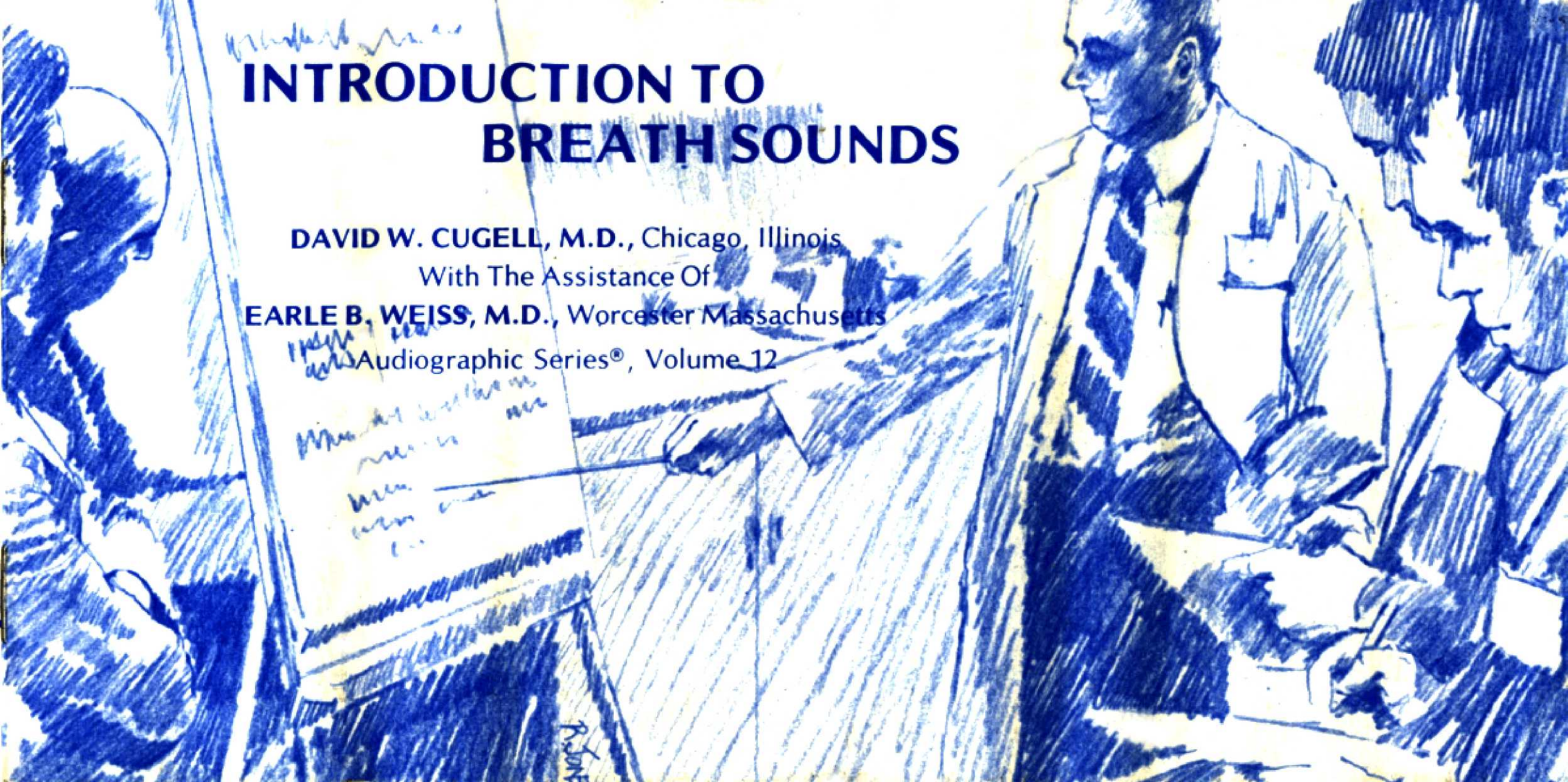
Audiographic Series®, Volume 12



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INTRODUCTION TO BREATH SOUNDS

Various noises originate from the heart and lungs. This cassette contains a collection of miscellaneous lung sounds recorded from healthy subjects and from patients with various diseases. No attempt has been made to present all of the normal and abnormal sounds that have been described in the literature. This is only a survey, a sampling of both normal and abnormal respiratory sound from infants and adults.

The stethoscope is a convenient device for transferring sound produced within the chest from the surface of the thorax to our ears. Stethoscopes alter the sound we hear and are not "high fidelity" instruments. Nevertheless, stethoscopes are employed so routinely and have been in use for such a long period of time that we have learned how to interpret sounds as they are heard through the stethoscope, rather than the sound as it is actually produced. In order to preserve this realism this recording has been prepared such that faithful, life-like reproduction will be achieved only if you listen to the cassette with a stethoscope. Thus, the cassette player serves as a substitute chest and a stethescope is interposed between the listener and the electronic "chest" as it is in real life. Hold the chest piece 3 or 4 inches away from the speaker of the cassette player for the best results.

There is very little explanatory comment on the cassette. Detailed descriptions of respiratory sound and their clinical importance can be found in the many available textbooks on Physicial Diagnosis and in the current medical literature; see the reference list on page 4.

Those of you already familiar with respiratory sounds may be disappointed that some types of respiratory sound are not mentioned. Many traditional descriptive terms have been avoided because recently developed methods of sound analysis have shown that certain terms are the result of subjective impressions with little basis in physical measurement. Furthermore, when an audience of pulmonary specialists listens to recorded respiratory sound there may be considerable disagreement between them regarding such matters as: are rales coarse or medium! Also the clinical significance of subtle differences in respiratory sounds has not yet been clearly delineated. Consequently, only broad classifications are identified on this cassette.

The first part of the cassette contains various normal and abnormal respiratory sound in the following sequence:

Opening instructions
#1 Normal breath sounds
#2 Carvernous or amphoric breath sounds
#3 Bronchial breath sounds
#4 E to A egophony
#5 Rales — inspiratory
#6 Rales — inspiratory
#7 Rales — early inspiratory
#8 Rales — persistent despite coughing
#9 Musical expiratory rales — asthma
#10 Normal infant breath sounds
#11 High pitched stridor in infant with croup
#12 Pleural friction rub

The second part of the cassette contains a series of additional sounds that are presented as unknowns. Each sound segment in the second part is described following its presentation. A list of the unknown sound sequences appears as the last page of this enclosure. Don't peek until you have tested your auscultatory skill!

REFERENCES

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2. Prior JA, Silberstein JS: Physical Diagnosis. The History and Examination of the Patient (4th ed) St. Louis, CV Mosby Co, 1973
3. Banazak EF, Kory RC, Snider G: Phonopneumography. Am Rev Resp Dis 107:449-455, 1973
4. Wooten FT, Waring WW: Spectral analysis of respiratory sounds. Med Inst 8:2, 1974
5. LeBlanc P, Macklem PT, Ross, WRD: Breath sounds and distribution of pulmonary ventilation. Am Rev Resp Dis 102: 10-16, 1970
6. Cugell DW: Use of tape recordings of respiratory sound and breathing pattern for instruction in pulmonary auscultation. Am Rev Resp Dis 104:948-950, 1971
7. Forgas P: Crackles and wheezes. Lancet 2:203-205, July 22, 1967

SIDE B

— TEST SEQUENCES

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(Titles Continued:— Lift Page)

SIDE B — TEST SEQUENCES

#1 Coarse, late inspiratory rales
#2 Wheezing and musical rales
#3 Bronchial breath sounds
#4 Pleural friction rub
#5 Fine to medium inspiratory rales
#6 Bronchial breathing plus inspiratory coarse rales and rhonchi (some expiratory rales also present, but are not mentioned in recorded commentary)
#7 Fine and medium inspiratory rales plus early expiratory rales — Pulmonary edema

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