



Littmann® Stethoscopes

More than 175 years ago in the year 1819, the French physician Rene Laennec developed a wooden monaural stethoscope with a large diameter base that was placed on the chest. The sound was funneled through a smaller opening into one ear of the listening physician.

In 1843, George P. Cammann (New York City) developed the first flexible binaural stethoscope from which sound could be heard simultaneously with both ears. By 1855, Cammann's stethoscope was made with an ebony chestpiece and flexible tubing made of spirals of wire covered with layers of silk dipped in gum elastic. The eartips were made of ivory.

In 1890, the original Cammann stethoscope was refined with a steel spring between the metal ear tubes. Several other minor refinements were made to stethoscopes until in the early 1960's Dr. Littmann, a Harvard Medical School professor, created a new stethoscope with vastly improved acoustical performance.

Dr. Littmann was a distinguished cardiologist and recognized international authority on electrocardiography. In 1961, Dr. Littmann described his “ideal” stethoscope in the November issue of the AMA journal. The device included an “open chestpiece for the appreciation of low-pitched sounds, a closed chestpiece with a stiff plastic diaphragm to filter-out low-pitched sounds, firm tubing with a single lumen bore, the shortest practical overall length, a spring with precise tension to hold the ear tubes apart, and light and convenient to carry and use.”

Dr. Littmann's description of his invention is what is now referred to as a “combination” or “two-sided chestpiece” stethoscope... a major advancement in stethoscope technology at the time. The current 3M™ Littmann® Classic II S.E. Stethoscope, a very popular 3M product, incorporates many similar features as found in Dr. Littmann's original stethoscope designs.

On April 1st, 1967, 3M acquired Cardiosonics, Inc. a small Cambridge, Massachusetts company. Dr. Littmann was the founder and medical director of this company with his partner, Gus Machlup. At that time the stethoscope line consisted of two key models, the doctor's stethoscope and the nurse's stethoscope.

By 1970, the doctor's “combination stethoscope” line had grown to 10 models... in stainless steel and aluminum featherweight, gold-plated and pediatric size chestpieces. Tubing color was still limited to gray and black, but lengths were 22 and 28 inches.

By the end of a four or five year period of new product activity, there were six major lines of stethoscopes and a total of 40 models available. In the late 70's, the 3M™ Littmann® Cardiology Stethoscope was born. The product was developed by asking fifty of the world's leading cardiologists to help 3M “design the ultimate stethoscope.” This “cardiologists' dream stethoscope”, as it was called, had a revolutionary two-tubes-in-one design, new softer eartips and a deeper bell for improved low frequency response.

Throughout the years, product improvements continued. In 1987, 3M introduced the 3M™ Littmann® Master Cardiology Stethoscope as its new top of the line product. This product, invented by 3M engineer Tom Packard, represented a significant leap in stethoscope technology and appearance since Dr. Littmann's doctor's stethoscope was developed in the early 1960's.

The Littmann Master Cardiology Stethoscope is a unique single-sided chestpiece stethoscope which features 3M's tunable diaphragm technology. As opposed to conventional “two-sided” or “combination” chestpiece stethoscopes, the Master Cardiology is able to capture high and low frequency sound ranges by alternating pressure on the chestpiece.

In 1999, 3M introduced the 3M™ Littmann® Electronic Stethoscope Model 2000 and in 2001 3M introduced the 3M™ Littmann® Electronic Stethoscope Model 4000. With state-of-the-art amplification and filtering systems in an ergonomic design, the Littmann Electronic Stethoscopes are an exceptional tool for advanced auscultation. Both superior acoustics and enhanced clarity make normal and difficult sounds easier to hear. These electronic stethoscopes are specially designed to pick up difficult-to-hear heart and other body sounds. The chestpiece houses the electronic stethoscope's innovative technology, including microphone and low-noise amplifiers, that offers up to 14 (2000) to 18 (4000) times the amplification of the most advanced conventional Littmann stethoscope.

In 2003, 3M introduced the 3M™ Littmann® Lightweight II S.E. Stethoscope. This stethoscope replaced the 3M™ Littmann® Lightweight Stethoscope. It was designed as a general-purpose stethoscope with an improved design that provides reliable acoustics for basic blood-pressure and limited physical assessment.

In 2004, 3M introduced the 3M™ Littmann® Educational CDs which offer computer-based auscultation learning opportunities. “An Introduction To Heart Sounds” and “Learning Lung Sounds” are multimedia, software programs that integrate textual, audio and visual waveform examples of the most common normal and abnormal heart or lung sounds.

Today Littmann stethoscopes are used worldwide. A wide variety, in both traditional and single-sided tunable diaphragm chestpiece designs, are available to meet virtually every auscultation need. Littmann stethoscopes' amenities for doctors and patients include nonchill rims, patented 3M™ Littmann® Snap Tight Soft-Sealing Eartips, anatomically correct eartubes, excellent warranty and service programs, and a choice of contemporary tubing colors. The standards for stethoscope performance, sound transmission, efficiency and comfort for both wearer and patient have come a long way from Rene Laennec's rolled paper. Listening to body sounds and interpreting their meaning is truly an art in the hands of a trained health care professional using today's advanced acoustical stethoscopes.



Health Care

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