

Pages of History

Paper To Digital... And Still Listening: The 200 Years Journey of Stethoscope

Thejesh C.V

Post Graduate, Department of General Medicine, Chettinad Academy of Research and Education, Chennai.

E-mail Id : thejeshcv2@gmail.com

Chettinad Health City Medical Journal 2019; 8(2): 55



Figure. 1 : An early Laennec stethoscope

PC. <https://en.wikipedia.org>

The word stethoscope is derived from two Greek words, 'stethos' meaning chest and 'scopos' indicating examination. A French doctor named Rene Theophile Hyacinthe Laennec invented the first stethoscope in 1816. Laennec was born in Quimper, Brittany in 1781. He did medicine in Nantes and then in Paris. He worked as a consulting physician at the Necker Enfants Malades Hospital in Paris where his interest in TB (which he contracted later) made him keenly listen to the chest. During an examination of a young overweight female patient, he thought it was improper to place his ear on her chest. So he attempted to find a way to avoid doing this. He used a rolled sheet of paper to create a tube to facilitate auscultation by placing one end of the tube to her chest and the other end at his ear.^{1,2}

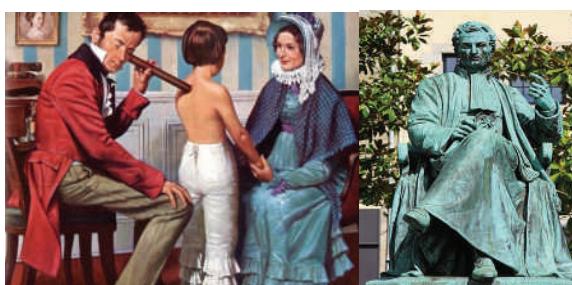


Figure. 2 : Laennec examining with his stethoscope and his statue. PC.- <https://commons.wikimedia.org>

In 1840, Golding Bird designed a stethoscope that had flexible tube and single earpiece. It was not until 1851 when the stethoscope had its next major improvement, which was to make the device bi-aural.³

It was invented by Irish physician Arthur Leared, and refined by George Cammann in 1852. In 1858, Somerville Scott Alison described a stethoscope which had two separate bells, allowing the user to hear and compare sounds derived from two discrete locations. In the early 1960s, David Littmann, a Harvard Medical School professor, and cardiologist patented a new stethoscope which had vastly improved acoustical performance. He transformed the stethoscope from a listening device into a powerful diagnostic tool.⁴



Figure. 3 : Electronic stethoscope

PC. <https://stethoscopes.ninja/best-electronic-stethoscopes>

Throughout the 20th century many minor improvements were made to these iconic devices to reduce weight, improve acoustic quality, and filter out external noise to aid in the process of auscultation. Electronic versions of the stethoscope were introduced to further amplify sounds. Stethoscopes are now available in a wide array of styles, with designs available for virtually every branch of medicine.

References

- 1) Roy JK, Roy TS, Mukhopadhyay SC. Heart Sound: Detection and Analytical Approach Towards Diseases. In *Modern Sensing Technologies* 2019 (pp. 103-145). Springer, Cham.
- 2) Roguin A. Rene Theophile Hyacinthe Laënnec (1781–1826): the man behind the stethoscope. *Clinical medicine & research.* 2006;4 (3) : 230-5
- 3) Silverman B, Balk M. Digital Stethoscope-Improved Auscultation at the Bedside. *The American journal of cardiology.* 019;23(6):984-5.
- 4) Tapp A. Sound and Sense-Making in Tolstoy's Sevastopol Stories. *Hearing the Crimean War: Wartime Sound and the Unmaking of Sense.* 2018:196.