

INVENTIONS

AND HOW THEY MADE HISTORY

You Can Make Your Own!

If you would like to make one of your very own homemade stethoscopes, similar to the earliest one, all you need is:

- 1) An empty paper towel roll
- 2) A funnel
- 3) A rubber balloon
- 4) Electrical tape

First, you take your balloon and cut off the mouthpiece, then spreading the balloon over the wide part of the funnel.

Second, take your electrical tape and run a long strip of it around so that the balloon is firmly attached to the funnel.

Third, place the narrow part of your funnel into the empty paper towel roll. Tape the funnel to the roll.

Now, place the balloon side against the chest of a 'patient' and put your ear to the end of the paper towel roll. If you're quiet, you might just hear something!



The Stethoscope

It is not surprising that medical technology was improving over time. If there was ever a motivation, it was to get healthy and to stay healthy. Many of us are familiar with a doctor's stethoscope, a device used to listen to the sounds coming from within a person's chest, but not many are familiar with its humble beginnings.

Listen to the Heart

The human chest contains the most vital organs of the human body, such as the heart and lungs. Everyone knows that a heart beats...if you sit still long enough and put your hand over your heart, you will notice the "Lub-dubs" of the heart. Those beats are actually the quick and hard openings of the valves in the heart muscle as blood is being forced in and out of it. Any variation or difficulties in the heart doing this lead to greater and greater health issues in the body. The same goes for the lungs, who need to be able process air in and out efficiently and without difficulty.

René Laennec

Even though doctors had long pressed their ears to patient's chest to listen to the heart and lungs, it was René Laennec in 1816 AD who invented a device to do this better: the stethoscope. The word *stethos* is the Greek word for *chest*, so stethoscope literally means a 'chest-scope'. It was originally a solid wooden tube that was held between the ear and the chest, enhancing the sounds coming from within the chest for the physician. There are more modern variations of this, most especially one with rubber tubes that lead to both ears of the doctor.

Impact

It is difficult to say if there was a measurable impact by this invention in the 1800's, except that mankind has always benefited in general health from doctors being able to better read and interpret the activities of the human body. In particular, it was the fact that one of Rene's patients was quite large in the chest, making it hard to hear his heartbeat and breathing. More heart defects and difficulties have been identified because of the stethoscope, leading to further developments in heart medicine and technology. In all, the stethoscope led to a better quality of life, including in early American History.

In 1776 in the Americas, the death rate was so high for young people that the life expectancy of an average colonial was 35 years. As medical technology improved, such as the stethoscope, quality of life improved to the point where the age expectancy today is almost 80 years old!

