

# Heart Sound Analyzer

The technology, the Heart Sound Analyzer, is a device and software package that gives a computer assisted analysis of heart sounds for facilitating diagnosis of heart disorders. The device attaches to a normal stethoscope and to a computer and the patient's signal is displayed on the computer screen in audio and visual format. The device also has a library of audio files of common heart problems to which the physician can compare the patient's signal and help correctly diagnose the problem, if any. The device can also "diagnose" the problem on its own for the physician and will show a "confidence factor" in that recommendation.

The pain being solved is that 80% of echocardiograms recommended by general practitioners are not medically necessary. They are prescribed in an overabundance of caution after the doctor listens to the patient with a stethoscope and has any doubt whatsoever about the signal. This is a non-invasive, ultra sound imaging of the heart that is excellent for detecting heart problems. By assisting the physician in his stethoscope reading, less unnecessary echocardiograms will be prescribed, saving the patient (and hospital) money.

## Salient features

- The invention is an integrated system to acquire and process digitized heart sound signal for identification of valvular heart diseases
- Helps better initial diagnosis, leading to a reduction of unnecessary echocardiograms
- A simple, non-invasive, low cost, primary investigation tool for analyzing and interpreting heart sounds.
- An extremely low cost, easy to use, primary diagnostic tool like the Heart Sound Analyzer can prove to be very useful in bringing people closer to a healthcare professional and in turn ensure quality healthcare.

## Areas of application

Medical industry

## End users

- Medical students
- Practicing physicians

- Health centres
- Diagnostic laboratories
- Hospitals