

ABSTRACT

Speech has evolved over a period of tens of thousands of years as the primary means of communication between human beings. Since the evaluation of speech and of homo sapiens have proceed hand-in-hand, it seems reasonable to assume that human speech production mechanisms, and the resulting acoustic signal, are optimally adapted to human speech perception mechanisms. There a lot of method to measure and analyse the speech production, there are Electropalatography (EPG), Accelerometer, Rothenberg Mask, Optical Tracking (Strain gauge), X-ray Microbeam (Magnetometer), Ultrasound, Electromyography (EMG), X-ray cine, Magnetic Resonance Imaging (MRI), Pressure Transducers, Respirace, Photoglottography (PGG), Video, Electroglottography (EGG), Velotrace and Photoglossometry. The Electroglottography, sometime also known as Electrolaryngography or Laryngography (trademark of Laryngography Limited) is a non-invasive method of measuring vocal fold contact during voicing without affecting speech production. The electroglottograph or known as EGG measures the variations in impedances to a very small electrical current between the electrodes pair placed across the neck as the area of vocal fold contact changes during voicing. This method was first developed by Fabre (1957) and influential contributions are credited to Fourcin (1971 with Abbertion) and Frokjaer-Jensen (1968 with Thorvaldsen). The computer unit will process the data and display the electroglottograph (EGG waveform) in real time then analyse by the pathologies or therapist. They can relate the waveform with the actual movement of vocal fold. The movement here means the closure and opening phase, maximum contact and maximum open between the flap of tissue. Commercially available for this devices are produced by Laryngography Ltd. (Since 1974), Synchronvoice, F-J Electronics, Glottal Enterprise and Kay Elemetrics Corporations. Actually pathologies or speech therapist trained the patients to perform the non-medical evaluation of a voice disorder and execute a plan to improve voice. In additional the Ear, Nose and Throat department, Phoniatics, speech scientists, phoneticts and linguistics department, foreign language teachers and so on. They can interpret the EGG waveform and analyse the voice regularity, voice quality, pitch, loudness control, fundamental frequency, voice onset time, the effects of laryngeal co-articulation and phephonatory laryngeal.