PENTAX Medical Visi-Pitch™ and Computerized Speech Lab (CSL™)
Evidence-based assessment and visual feedback for the modern clinic

Providing validated measures for voice and speech assessment

Engineered to capture small differences in acoustic signals for accurate results

Supports therapy with visual and auditory biofeedback
Visi-Pitch™ and CSL™ are valuable tools for voice and speech analysis and therapy, used in top voice centers around the world

With more than 30 years of experience developing speech and voice assessment tools, PENTAX Medical speech products have become the standard of care for clinical speech-language pathologists and voice specialists.

Facilitates reliable and precise assessment in the voice clinic

Visi-Pitch and CSL consist of professional-quality hardware and time-proven software intended for the capture and processing of speech and voice signals.

- Designed to comply with industry recommendations to enable the accurate representation of patients’ speech and voice
- Acoustic software uses analysis algorithms that have been proven by dozens of peer-reviewed studies to contribute to clinicians’ understanding of phonatory behavior

Measurements of patient performance, which can be compared to normative data, include:

- Calibrated SPL (amplitude) range or habitual SPL
- Habitual fundamental frequency and frequency range
- Voice quality measures including frequency- and amplitude-based and cepstral-based
- Motor speech measures including diadochokinetic rate and other timing related measures

Contributes to the acquisition of therapy goals

Visi-Pitch and CSL acoustic instrumentation and software provide real-time display of speech and voice signals (frequency, amplitude, formants, etc.), and playback of acoustic samples that can be used to offer valuable feedback to patients.

PENTAX Medical acoustic products supplement standard speech therapy with real-time processing for immediate visual and auditory biofeedback. Studies have shown that adding feedback during speech therapy can improve patient progress and accelerates patient acquisition of therapy goals.

Real-time software provides a fun and interactive way to motivate and stimulate during typical speech therapy tasks such as:

- Reinforcement of desired vocal behavior including loudness, timing, intonation, and pitch
- Training in articulation and singing voice
- Assistance with the acquisition of therapy goals for dysarthria, stuttering, and other voice disorders

How is the PENTAX Medical acoustic hardware different?

Due to our advanced audio capture hardware, PENTAX Medical acoustic products incorporate features intended for voice-signal capture and analysis that are not available in freeware or low-cost acoustic software.

- Typical sound cards optimize playback and not recording
- The sampling rate of typical sound card is not precise, potentially leading to the alteration of the signal that is captured
- Voice analysis requires the measurement of small amounts of noise or perturbation, thus, it is critical to have professional-quality hardware to provide you with confidence during signal acquisition