How Monitoring Voice Affects Voice Production

Studies have found that occupational voice users like teachers and call center workers are at nearly a two-fold increased risk for vocal injury than the average population. To better understand this increased risk, small voice monitoring devices have been used (e.g. Voice Accumulators, Voice Dosimeters, Ambulatory Phonation Monitors). However, it is unknown how these monitoring devices affect the behaviors of the user, which may in fact skew the very thing to be monitored.

A recent article in *Logopedics, Phoniatrics, and Vocology* discussed this question, written by Dr. Eric Hunter of the National Center for Voice (NCVS) and Speech at the University of Utah. The report explored two questions: How do voice monitoring devices affect daily communication and how do participants feel about the physical design and function of these types of devices?

The study found that most of the subjects remained aware of the dosimeter while wearing it, which may impact the data collected. Furthermore, most subjects had difficulty with the device: first, skin irritation from attaching the accelerometer; and second, the size and inconvenience of the external pack used to process and store the data collected.

Dr. Hunter and colleagues at the NCVS have spent more than 10 years studying multi-day monitoring of voice use in a variety of settings, and archiving more than 10,000 hours of voice use. The vocal health of occupational voice users is a significant issue. Nearly one quarter of the U.S. workforce, or approximately 37 million individuals, depends on a healthy, versatile voice, as a tool for their profession. These are individuals who, in the event of the loss of vocal endurance and/or vocal quality, would be unable to perform their primary job responsibility.

For additional information, see the full article by Dr. Eric J. Hunter, entitled “Teacher response to ambulatory monitoring of voice”, published in *Logopedics, Phoniatrics, Vocology*, 2012.

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