

**An epidemiological study of
occupational voice demands
and their impact on the
Call-centre industry.**

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Environment



“On evenings when there are loads of people in, it’s noisy and you know yourself, you’re speaking louder”

Technology



“Getting used to the head-set and talking over everyone else, your throat was sore”

Vocal Demands



“I would like to have more breaks from using the telephone, mobile or dictaphone, so I could rest my voice”

OSH Awareness



“I don’t think employers would associate a sore throat with speaking on the phone . They probably wouldn’t be aware of it!”

Occupational Dysphonia

1. “Difficulty talking over background noise”
2. “Cough or clear throat”
3. “Throat feels sore”
4. “Sound of voice varies through day”
5. “Voice hoarse”
6. “Effort to speak tiring”

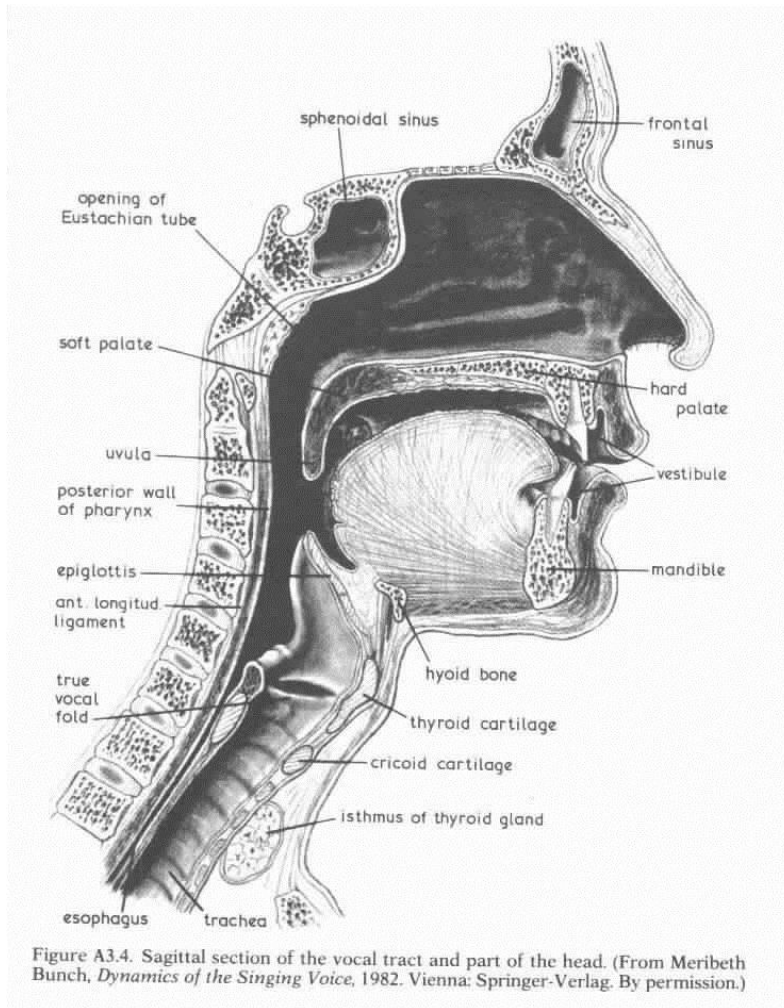
Definitions

Occupational dysphonia –

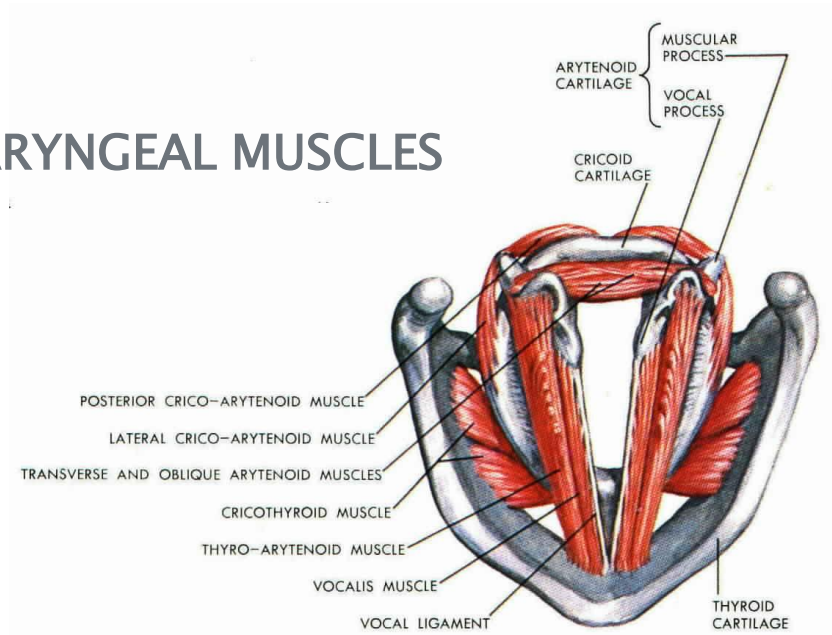
“A voice condition, due to work-related overuse or abuse of voicing or the vocal mechanism.”

(Sapir et al., 1993)

Vocal Tract



LARYNGEAL MUSCLES



Risk Factors in Professional Voice Use

WORK-RELATED FACTORS	INDIVIDUAL FACTORS
<ul style="list-style-type: none">•Vocal loading (speech and singing)•Background noise•Poor room acoustics•Long speaking distance•Air quality, dryness, dust•Poor working posture•Stress•Inadequate equipment•Inadequate treatment of early signs	<ul style="list-style-type: none">•Weak voice•Poor technique•Poor vocal habits•Talkative personality•Vocally loading hobbies•Poor life habits•Poor general condition•Respiratory diseases•smoking

Organisational Impact

“Thousands of workers are talking their way out of a job, with voice loss threatening the livelihood of 1:50 call centre workers”

“Voice loss already costs the country £200m a year, with the figure set to double in the next 10 years as the no. of CC grows”

(UNISON, 2005)

What methods?

- 600 full-time call-centre workers
- **Data Collection:** Online Questionnaire -
Vocology Screening Profile
- VoiSS, VHI;
- MDVP Acoustic Analysis
- **Data Analysis:** SPSS, acoustic profiling,
Structural Equation Modelling

Questionnaire Topics

- Work environment
- Vocal Health
- Voice Symptoms
- Persuasion Impact
- Communication Effectiveness

What benefits?

1. Call centre work environment, vocal demands, vocal symptoms and patterns.
2. Risk Assessment and Performance
3. Call-handlers' knowledge of voice and voice care.
4. Potential benefits to communication style and delivery
5. Current health and safety practices in the work place.

Further Information

- http://www.iosh.co.uk/information_and_resources/research_and_development/research_fund/published_research.aspx

- Research Evidence
 - Work organisation, industrial relations and management of Call centres (Taylor & Bain, 1997, 2003; Ellis & Taylor, 2006)
 - Occupational Vocal Health (Titze, 1997; Jones, 2002; Vilkmán, 2003; Lehto et al., 2005, Croner Report, 2006)
 - Communication, talk and interaction (Cameron, 2000)