

Journal of Voice Volume 3, 1989

Subject Index

- Abdominal expansion
 with diaphragmatic activation, 225
- Abdominal muscles
 outward displacement, 24
 in sound production, 52
 in voice production, 24
 in wind instrumentation, 52
- Academic disciplines in voice research, 7
- Acoustic analysis
 of abdominal muscle activity, 24
 of aryepiglottic constriction, 342
 of different phonation modes, 99
 for tonsillectomy effects, 81
 vocal folds, age-related differences, 120
 of vocal vibrato, 32
- Actors, voice analysis, 143
- Aerodynamics
 in pitch regulation, 93
 of snoring, 1
 vocal tract signal generators, 283
- Aging voice
 acoustic and aerodynamic changes, 120
 drug-related changes, 120
 laryngeal changes, 204
 vibratory characteristics, 120
 vocal jitter, 113
- Airflow rate, age-related differences, 120
- Airways
 effect of endotracheal intubation on, 76
 fires in during laser surgery, 163
- American Academy of Otolaryngology-Head and Neck
 Surgery Information Network, 7
- American Speech-Language and Hearing Association, 264
- Amplitude modulations
 double-peaked traces, 36
 and frequency modulations, 32
 in pathological vocal tremor, 36
 in vocal vibrato, 36
 see also Resonance-harmonics interaction hypothesis
- Amyotrophic lateral sclerosis
 vocal effects, 148
- Aperiodicity
 in actor's voices, assessment, 143
 of vocal fold vibrations, 120
- Archives, audio and sound, 277
- Aryepiglottic constriction, in "ringing" voice, 342
- Assessment of voice, 68
- Bass/baritone
 xeroradiographic-electrolaryngographic analysis, 244
- Bernoulli effect, 1
- Book reviews
 The Larynx: A Multidisciplinary Approach, by Marvin P. Fried, 183
- Brass instrumentalists
 control over tonal quality, 65
 open throat concept, 65
- Breathing
 abdominal muscle activity, 24
 instrumental, 52
 laryngeal adjustments during, 225
 pattern of inhalation, 52
 vocal, 52
- Breathing cycle, inspiratory phase, 24
- Breath support, teaching methods, 52
- Cardiovascular-communication link, 104
- Cardiovascular physiology of vocal folds, 104
- Cerebral cortex
 association areas, 18
 frontal lobe development, 18
- Chest voice, acoustic analysis, 99
- Children's voices, third formant, 321
- Chorea, vocal effects, 148
- Collagen in phonosurgery, 175
- Collegium Medicorum Theatri, 7
- Computers in voice research
 experimental light, 7
 high-speed-data acquisition, 283
 neural network, 7
- Conceptual thought evolution, 18
- Concurrent study, 52
- Countertenor, xeroradiographic-electrolaryngographic analysis, 244
- Cricothyroid muscle
 and diaphragm, activity relationship, 225
 frequency-raising maneuver, 36
 fundamental frequency regulation, 213
 in pitch regulation, 93
 in vocal vibrato, 36
- Data acquisition, vocal tract physiology, 283
- Diaphragm
 coactivation, 225
 abduction effect, 225
- Digital image processing
 edge detection, 132
 enhancement techniques, 132

- laryngeal imaging, 132
of the larynx, 132
processing techniques, 132
software programs, 132
Digitization. *See* Digital image processing
- Electroglottography
effect of aberrant glottal opening on, 68
trigger onset point, 68
and videostroboscopy, synchronization, 68
cross-validation function, 68
- Electrolaryngographic analysis
of male vocal registers, 244
- Electromyography, 52
of abdominal wall, 24
kinematic and acoustic comparison, 24
- EMG activity
cricothyroid muscle, 213, 225
thyroarytenoid muscle, 213
- Endotracheal intubation
clinical complication, 76
for laser surgery, 163
pathological effects, 76
- Esophageal voice, history, 264
- Exaggerated vibrato, 32
- Falsetto
acoustic analysis, 99
xeroradiographic-electrolaryngographic analysis, 244
- Female hormones, vocal effects, 157, 233
- Female voice
vibratory characteristics, 120
vocal jitter, 113
vocal premenstrual syndrome, 148, 233
- Ferrein, Antoine, 187
on the formation of the human voice, 187
- Fiberscopic videolaryngoscopy of aryepiglottic constriction, 342
- First International Voice Conference, 7
- Fluency of reticent speech, 324
- Fluid dynamics, 1
- Formant frequencies, after tonsillectomy, 81
- Frequency modulations in vocal vibrato, 32, 36
- Frequency range of reticent speech, 324
- Frequency variability
of actor's voices, assessment, 143
- Functional dysphonia, mechanism, 337
- Fundamental frequency
age-related differences, 120
during straight tone, 32
effect on vocal jitter, 104
hormonal changes, 233
regulation
tensor muscles in, 213
theoretical model, 213
of reticent speech, 324
in vocal vibrato, 32
- Fundamental frequency, short-term
cardiovascular influence, 104
neuromuscular influence, 104
- Fundamental frequency perturbation. *See* Vocal jitter
- Gastroesophageal reflux
and chronic dysphonia, 351
- Generalized cerebellar disease
vocal effects, 148
- Geriatric. *See* Aging voice
- Glottal airflow, male/female speakers, 294
- Glottal closure, incomplete, 120
- Glottal particle velocity, 306
- Glottis
digital imaging, 132
periodic closure, 1
- Head voice, acoustic analysis, 99
- Horseradish peroxidase, 314
- Hyoid bone, anterior movement, 44
- Hyperfunctional dysphonia, therapy techniques, 44
- Imaging techniques, 7
PET, 7
- Intensity
of actor's voices, assessment, 143
of reticent speech, 324
- International Association of Laryngectomees, 264
- International Association of Logopedics and Phoniatrics, 7
- Intrinsic pitch of vowels
acoustic coupling hypothesis, 44
horizontal-vertical pull hypothesis, 44
implications for vocal disorders, 44
mechanical coupling hypotheses, 44
neural coupling hypothesis, 44
in singing, 44
tongue-compression hypothesis, 44
tongue-pull hypothesis, 44
- Inverse filter, 294
- Jitter. *See* Vocal jitter
- Kinematic analysis
of abdominal muscle activity, 24
- Laryngeal biomechanics, 44
- Laryngeal cinematography, ultra-high speed, 68
- Laryngeal electromyography, 337
- Laryngeal function
vocal cord motion and laryngeal postures, 65
in wind instruments, 65
- Laryngeal glands
aging of, 204
anatomy, 204
bilateral vestibular folds, 204
connective tissue changes, 204
in maintenance of vocal folds, 204
mucous and serous acini, 204
- Laryngectomy, 264
- Larynx
adjustments during breathing, 225
aerodynamic principles, 1
digital imaging, 132

- geriatric, 120, 204
- sensory nerve fibers, 314
- subglottal and transglottal air pressure, 44
- Laser surgery
 - anesthesia, 163
 - laser types
 - CO₂, 163
 - neodymium-yttrium-aluminum-garnet, 163
 - ruby, 163
 - operating room hazards, 163
 - principles, 163
- Letter to the Editor
 - CPT codes, 92
- Lung volume range, 24
- Male/female speakers
 - glottal airflow and transglottal air pressure, 294
- Male voice, xeroradiographic-electrolaryngographic analysis, 244
- Mallinckrodt laser-flex endotracheal tube, 163
- Maximum exhalation time
 - of actors, assessment, 143
- Maximum phonation time
 - of actors, assessment, 143
- Mean speaking frequency
 - of actors, assessment, 143
- Menstruation, vocal changes, 233
- Mode of phonation, acoustic characteristics, 99
- Motor control, phonatory and nonphonatory, 257
- Mucosal wave, 120
- Multiple sclerosis, vocal effects, 148
- Muscle activation plot, 213
- Myasthenia gravis, vocal effects, 148
- Neural pathways, matrix, 7
- Neurologic disease
 - of the cerebellum, 148
 - effect on voice, 148
 - extrapyramidal system disorders, 148
 - lower motor neurons, 148
 - neuromuscular junction disorders, 148
 - upper motor neurons, 148
- Neuromuscular physiology
 - influence on frequency variability, 104
 - motor-unit twitches, 104
- Neurorrhaphy, 175
- Nodose ganglion, sensory nerve fibers (cat), 314
- Norton endotracheal tube, 163
- Oral-laryngeal reflexes
 - affect on frequency modulation, 44
- Ovarian hormones. *See* Female hormones
- Parkinsonism, vocal effects, 148
- Pathological vocal tremor
 - amplitude modulations, 36
- Pause in reticent speech, 324
- Performers, female
 - vocal premenstrual syndrome, 157
- pH monitoring of gastroesophageal reflux disease, 351
- Phonatory control in vocal training, 44
- Phoniatrist, 7
- Phonosurgery
 - development of, 175
 - for singers
 - indications, 269
 - pathologies, 269
 - for voice improvement, 175
- Pitch matching, 257
- Postoperative dysphonia, 87
 - prevention, 87
- Preservation of voices, 277
- Protocol display system, 283
- Pseudobulbar palsy, vocal effects, 148
- Recording archives, 277
- Reflux laryngitis, 351
- Register, falsetto vs. countertenor, 244
- Reinke's edema, surgical techniques, 175
- Reinnervation of vocal cords, 175
- Research tools
 - high speed camera, 7
 - matrix, 7
- Resonance-harmonics interaction hypothesis
 - implications for future research, 36
 - intensity function, 36
 - limitations of, 36
 - measurement methods, 36
 - predicted relationships, 36
- Reticent speech, acoustic characteristics, 324
- Rib cage circumference
 - with diaphragmatic activation, 225
- Scanning speech, 148
- Sensory neuron, origins, 314
- Shimmer, age-related, 120
- Signal analysis, 277
- Singers
 - age-related variations, 113
 - diaphragmatic coactivation, 225
 - pathologic conditions, 269
 - vocal control, 257
 - vocal vibrato, 32
 - early vs. late music, 32
 - frequency modulations, 36
- Singer's formant, 81
- Singing
 - abdominal muscle activity, 24
 - intrinsic pitch of vowels, 44
- Singing formant
 - in head/chest voice, 99
 - in speech mode, 99
- Skull base anatomy
 - australopithecine, 18
 - Homo erectus*, 18
 - Homo habilis*, 18
 - Homo sapiens*, 18
- Snoring, aerodynamic principles, 1
- Sound pressure level, age-related differences, 120
- Spastic adductor dysphonia, 148
- Spectrography, of vocal vibrato, 36
- Speech evolution, 18
- Speech mode, acoustic analysis, 99
- Straight tone, fundamental frequency, 32

- Stroboscopy, photographic, 68
 Subglottal pressure, in raising pitch, 93
 Suprahyoid muscle, 52
 Systonia, vocal effects, 148
- Teflon implants in phonosurgery, 175
 Third formant in prepubertal children, 321
 Thyroarytenoid muscle
 fundamental frequency regulation, 213
 in pitch regulation, 93
 Thyroid cartilage, inferior pull, 44
 Thyroplasty, 175
 Tonndorf, Woldemar, 1
 Tonsillectomy
 effect on vocal tract resonance, 81
 Tracheal pull
 and cricothyroid activity, 225
 during singing, 225
 Tracheoesophageal puncture, 264
 Transglottal air pressure
 male/female speakers, 294
- Unsolved voice problems, 7
- Venturi jet ventilation, 163
 Vibrato
 definition, 36
 diaphragm, 52
 laryngeal, 65
 mechanics, 65
 for oboe, 52
 see also Vocal vibrato
 Video fiberoptic laryngoscopy, 65
 Videolaryngoscopy, 76
 Videostroboscopy
 and electroglottography, synchronization, 68
 cross-validation function, 68
 of vocal folds, 120
 Videostroboscopy-glottography
 on female performers, 157
 Vocal abuse, 87
 Vocal cord paresis, 337
 Vocal cues in reticent speech, 324
 Vocal epithelium, hormonal changes, 157
 Vocal fold pathology
 etioloical factors, 76
 from endotracheal intubation, 76
 key-hole deformity, 76
 Vocal folds
 effect of tongue on, 44
 elasticity of, 1
 hydration, age-related changes, 204
 microvarices, 157
 premenstrual behavior, 233
 vibratory characteristics, age-related, 120, 204
 aperiodicity, 120
 reduced amplitude, 120
 vibratory pattern, 1
 Vocal fold surgery, complications, 87
 Vocal function, effects of aging on, 113, 120
 Vocal jitter
 across menstrual cycle, 233
 age-related, 113, 120
 deterministic, 104
 with frequency variation, 104
 fundamental frequency analyses, 113
 neuromuscular factors, 104
 physiologic mechanisms, 104
 in reticent speech, 324
 statistical analyses, 113
 with vocal pathologies, 104
 Vocal phonation, and embouchure, 52
 Vocal pitch
 effects of electrical stimulation on, 93
 muscle control, 213
 regulation, 93
 Vocal premenstrual syndrome, 233
 ovulation phase, 157
 premenstrual phase, 157
 in voice performers, 157
 Vocal stability
 of actors, assessment, 143
 Vocal tract anatomy
 in air-breathing vertebrates, 18
 human, 18
 and skull base anatomy, 18
 Vocal tract physiology
 data acquisition and protocol control, 283
 Vocal tract resonance
 effect of tonsillectomy on, 81
 Vocal vibrato
 amplitude modulation, 36
 early studies, 32
 frequency modulations, 32
 fundamental frequency, 32
 "parallel" and "opposite," 36
 and pathological vocal tremor, 36
 "pitch," 36
 spectrographic analysis, 36
 vs. instrumental, 52
 vs. string-instrument vibrato, 32
 Voice conservation, 87
 Voice disorders, implication of IPV for, 44
 Voice Foundation, Annual Symposia on Care of the Professional Voice, 7
 Voice mutation, 321
 Voice quality, "ringing," 342
 Voice research
 audio and sound archives, 277
 interdisciplinary development, 7
 Voice rest, 87
 Voice therapy, 87
 Voice tremor, articulatory-induced, 44
- Wind instrumentalists
 breath control, 52
 embouchure, 52
 pharyngeal function, 65
 Wisconsin Vocal Fold Conference, 7
- Xeroradiographic analysis
 of male vocal registers, 244
 Xomed laser-shield endotracheal tube, 163