OPMD and Speech

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Speaking requires muscles
Respiration provides the power source

Muscles of Respiration

Sternomastoids
Scalenes
Inspiratory Intercostals
Expiratory Intercostals
Diaphragm
Expiratory Intercostals
External Oblique
Expiratory Abdominals

[Video]
Phonation creates the tone
Vocal folds vibrate

video

audio
Articulation shapes tone into speech sounds
Resonance controls airflow into nose

Breathing “m,” “n,” and “ng”

Swallowing All other speech sounds

video
Muscle weakness in OPMD can cause...

• Respiration problems?
  o Not very common
• Voice problems
  o Weak voice, low volume
• Articulation problems
  o Slow, slurred speech
• Resonance problems
  o Nasal-sounding voice
Speech is usually less affected than swallowing.
Speech may be slower than normal

Diadochokinetic Rates

- /tʌ/
- /kʌ/
- /pætəkʌ/
- Laryngeal DDK

Syllables Per Second

OPMD
Control
Speech may require more effort than normal

Speech Ratings

- Intelligibility
- Articulatory Precision
- Voice Quality
- Nasality

Comparison of OPMD and Control ratings.