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Interventions for Dysphagia: Modifications of Diet Texture, Head Position and Tongue Strength

Catriona Steele (*Toronto Rehabilitation Institute*)

Oropharyngeal dysphagia (swallowing impairment) is a serious medical condition, involving two concerns: 1, the inability to swallow safely, whereby material enters the airway ("penetration-aspiration"); and/or 2, the inability to swallow efficiently, with residue remaining in the pharynx. Among the most commonly used clinical interventions for dysphagia are diet texture modification, the use of altered head positions (such as the chin-down maneuver) and exercise-based treatment to improve tongue strength.

In this talk, Dr. Steele will discuss what is known about healthy swallowing physiology across a range of different bolus consistencies. Recent data incorporating videofluoroscopy in combination with simultaneous measurement of tongue pressures will be shared. The impact of rheological characteristics such as shear viscosity, gravity flow and yield stress on bolus flow through different regions of the oropharynx will be explored.

The evidence regarding treatment techniques involving altered head positioning and improved tongue strength for improving swallowing function in people with dysphagia will be reviewed. In closing, the potential interaction of head positioning, tongue strength and bolus texture modification for influencing safe and efficient propulsion of liquids ranging from thin to extremely thick consistencies through the oropharynx will be explored.