Reconstruction of the soft palate after surgical resection is a complex procedure that has the potential to impact function if the integrity of the velopharynx is not restored. Velopharyngeal impairment can negatively impact speech intelligibility, and may result in hypernasality and nasal air emission. The Soft Palate Insufficiency Repair (SPIR) procedure, a technique developed by Seikaly and colleagues (Seikaly et. al., 2008), involves the modification of a radial forearm free flap to fill the defect leaving a small nasopharyngeal port on one side.

Our center reported on 10 patients who had undergone reconstruction of defects that encompassed more than half of the soft palate using the SPIR procedure between May 2001 and June 2006 (Rieger et. al., 2008) The results revealed that these 10 patients achieved normal perceptual, acoustical and aeromechanical speech outcomes, unlike patients with similar defects who were reconstructed with an adhesion. Based on these favorable results, our center has abandoned adhesions and the SPIR reconstruction is used exclusively for defects of that encompass 50% or more of the soft palate.

One weakness of the 2008 study was the limited number of patients available to report on who had undergone a SPIR procedure. Since the 2008 publication, our center has assessed at total of 13 additional patients reconstructed with the SPIR procedure. We will report on perceptual, acoustic and aeromechanical speech measurements taken at four times in these additional 13 patients’ treatment pathway (pre-operative, and 1-, 6-, and 12-months post-operative).