

**CAPITAL REGION
SPECIAL SURGERY**

Neurosurgery

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Our facility includes:

MRI, CT and X-ray
Pain Management
McKenzie-Certified PT
Licensed Social Worker

Care for:

Back and Neck Pain
Head and Neck Disorders
Adult & Pediatric Ear, Nose & Throat
Voice & Swallowing
Sinus & Allergy
Hearing Loss & Implantable Hearing
Devices
Balance Disorders and Vertigo
Sleep Disorders and Disturbances

**A Shared Approach to Treating the Cervical Spine Patient:
Neurosurgeons and Otolaryngologists Offer Collaborative Care.**

A shared approach between neurosurgeons and otolaryngologists when treating the cervical spine patient offers higher patient satisfaction and may factor in achieving better outcomes. At Capital Region Special Surgery (CRSS) a team of Neurosurgeons, Otolaryngologists, Physical Therapists, and Speech Language Pathologists collaborate together to prepare patients for fusion surgery. Together this team provides patients with quality technological care in the pre and post operative periods which allows patients to return to a higher level of function more quickly.

Recently, the neurosurgical literature has recognized that many patients may experience some hoarseness and dysphagia following anterior cervical spine surgery, because the



Preop



Postop

recurrent laryngeal nerve (RLN) is stretched during the lateral retraction of the larynx that allow access to the cervical spine. Studies show a greater risk of injury to the RLN from a right-side approach since the course of the nerve is shorter on the right. Postoperative dysphagia may be the result of many factors, including swelling of the esophagus due to its

close proximity to the surgical site, and the addition of hardware. The likelihood of esophageal swelling and dysphagia may be compounded in direct correlation to the number of levels being fused. The requirement for patients to wear a cervical collar for 4-6 weeks to provide stability to the repair causes extension of the neck. This posture can interfere with the normal position of the larynx and esophagus thus inhibit swallowing. To aid in swallowing, most people tend to tuck in their chins, however this is not possible when the patient is wearing a cervical collar. Finally, through continued research at CRSS, there is evidence to indicate the possibility of a neurological component to the dysphagia. Sensory nerve fibers that innervate the base of the tongue seem to be temporarily injured during the surgery. This can cause a pooling of food in the vallecula that the patient can not feel and requires several swallows with a liquid to clear.

Continued on back

A Shared Approach to Treating the Cervical Spine Patient *con't*

At CRSS, patients are seen by our team of otolaryngologists and speech language pathologist preoperatively to assess any voice or swallowing problems and to counsel patients on what to expect in the recovery process. Stroboscopy and dynamic voice and swallowing assessment with flexible laryngoscopy (in the office) provide a superior view of the larynx and provides a teaching tool for patients to learn more about their particular voice or swallow problem. Through research performed at CRSS¹ it has been noted that nearly 30% of patients were found to have preoperative vocal pathology. Approximately, 70% of patients studied had signs or symptoms of acid reflux. By managing reflux and vocal pathology in the perioperative period will reduce postoperative voice and swallowing problems.

According to Lee et al², approximately 50% of patients will experience dysphagia after ACDF and 10% may continue to have long-term dysphagia. Another study³ showed that 48% of patients had radiographic evidence of preoperative swallowing abnormalities, but none of them had complaints of dysphagia. Most of these patients had myelopathy which portends a worse postoperative outcome.

The incidence of vocal fold paralysis after ACDF ranges from 2-16% with a recovery rate in the 12 months to range from 60-80%. At CRSS patients experience a better recovery and fewer require vocal fold injections with conservative treatments such as voice therapy.

We have found that patients experience a better recovery and fewer require vocal fold injections with conservative treatments such as voice therapy.

Patients have higher satisfaction rates when they are given an adequate understanding of what to expect in the post operative period and are taught strategies to manage any symptoms they have. If the patient has prolonged symptoms of hoarseness or dysphagia, a trained Speech Language Pathologist specializing in voice and swallow disorders can assist them in their recovery. Otolaryngologists are able to diagnose and manage and post operative voice and swallowing issues that are not amenable to therapy.

1. Murphy E, Lenhardt M, Pickering J, Scheid SC, Awwad RJ. Voice and reflux problems prior to anterior cervical spine surgery. 2009 ASHA Convention, New Orleans.
2. Lee JY, Lim MR, Albert TJ. Dysphagia after anterior cervical spine surgery: pathophysiology, incidence and prevention.
3. Frempong-Boadu A; Houten JK, Osborn B, Opulencia J, Kellls L, Guida DD, LeRoux PD. Swallowing and speech dysfunction in patients undergoing anterior cervical discectomy and fusion: a prospective, objective preoperative and postoperative assessment. J Spinal Disord Tech. 2002 Oct; 15(5): 362-8

NEWS

The 3rd Annual **Capital Region Special Surgery (CRSS) Race for Hope** to take place on Saturday, September 10, 2011. This is a **USA Track and Field sanctioned and certified 5K course** for runners and walkers.

Since 2009, this Capital Region Special Surgery event has raised over \$100,000 to help those in the Capital Region affected with brain, head and neck cancer in our community. ALL proceeds are split between two local organizations: patient services at the **St. Peter's Cancer Care Center** and **Ronald McDonald House Charities of the Capital Region, Inc.**

Visit us at www.raceforhopealbany.com