# Hereditary Hemorrhagic Telangiectasia

# **Nasal Septal Perforation Repair**

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## **Clinical Challenge**

HHT is a hereditary disorder characterized by the proliferation of aberrant vascular tissue. HHT can manifest itself most notably through proliferation of telangiectasias or arteriovascular malformations (AVMs). In most cases formation of poorly formed blood vessels, telangiectasias, in the nasal septum lead to repeated bouts of nosebleeds (epistaxis). Typically treatment of these vessels with cauterization damages the nasal septum, leading to septal perforation.

#### **Procedure Overview**

During an evaluation by a septal repair specialist, imaging of the nasal cavity is usually obtained to determine the presence, size, and location of any septal perforations as well as any other underlying damage that is not readily evident. Typically, HHT patients have undergone one or more cauterization procedures to address recurrent episodes of epistaxis. While effective at alleviating symptoms of bleeding, cauterization typically results in the destruction of septal tissue. Once it has been determined that a patient is an appropriate candidate for septal repair, preparations are made for surgical treatment. Perioperatively, cutting edge techniques are employed to repair the compromised septum and restore proper nasal anatomy.

### **Surgical Considerations**

Depending on the severity of the septal perforation and associated structural compromise of the nose, a septal repair specialist may recommend concomitant reconstruction of the nose using rhinoplasty procedures to restore or improve proper breathing and avoid any undesirable symptoms or complications.

### **Clinical Results**

Table 1. Surgical Procedures Performed with Septal Perforation Repair

	% Of Total No.
Surgical Procedure	of Procedures Performed
Septoplasty	85
Osteotomies/Fracture Repair	15
Vestibular Stenosis Repair	50
Spreader Grafts	10
Onlay Grafts	45

#### **Surgeon Comments**

Dr. Jason Hamilton, Director of Plastic and Reconstructive Surgery at the Osborne Head and Neck Institute, is double board certified by the American Board of Facial Plastic and Reconstructive Surgery and the American Board of Otolaryngology/Head and Neck Surgery. His extensive training and expertise provide him with a unique perspective to address both functional and aesthetic concerns of the nose.

For more information on HHT or septal perforation repair, please contact the Osborne Head and Neck Institute or visit www.perforatedseptum.com



Figure 1: Schematic representation of the nasal cavity including the septum.



Figure 2: Schematic demonstrating a common location for septal defects.



Figure 3: Nasolaryngoscopy image of HHT patient demonstrating scaling and dried blood.

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