

## **Neurovascular Service: Epistaxis**

Epistaxis is the technical term used for nose bleed. These can be a source of medical morbidity in patients and are most often idiopathic in nature. It can also be caused by medical conditions such as AVM or hemangioma of the nasal cavity, chronic anti-coagulation such as warfarin, Osler Weber Rendu (Hereditary Hemorrhagic Telangectasia), facial trauma and post-operative patients following surgery of the paranasal sinuses. It is important to exclude paranasal sinus tumors such as juvenile nasal angiofibroma in the pediatric population.

Several types of treatments can be used in patients with epistaxis. ENT surgeons may choose cautery to ablate affected nasal mucosa, but it is not always effective. Embolization can be done for such patients with intractable nose bleeds. First a catheter angiogram is done of the external carotid artery branches to the face and nose. The internal carotid artery is also studied because flow that is derived from the ophthalmic artery may also supply the paranasal sinuses. The second step is to place a microcatheter into the branches which supply abnormal nasal mucosa and deliver micron size embolic particles or other materials such a collagen plugs. While this is effective in over 90% of patients, it may be a small number of patients to place a metal clip on small arteries not safely accessible by this catheter method.



The Neurovascular Service at Massachusetts General Hospital provides a multidisciplinary approach to patient care that combines neurosurgery, neurology and interventional neuroradiology. Based in the Department of Radiology, the Neurovascular Service's Interventional Neuroradiology Program uses minimally invasive procedures to treat a range of neurovascular disease and spinal disorders. For more information, visit www.mgh-interventional-neurorad.org

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