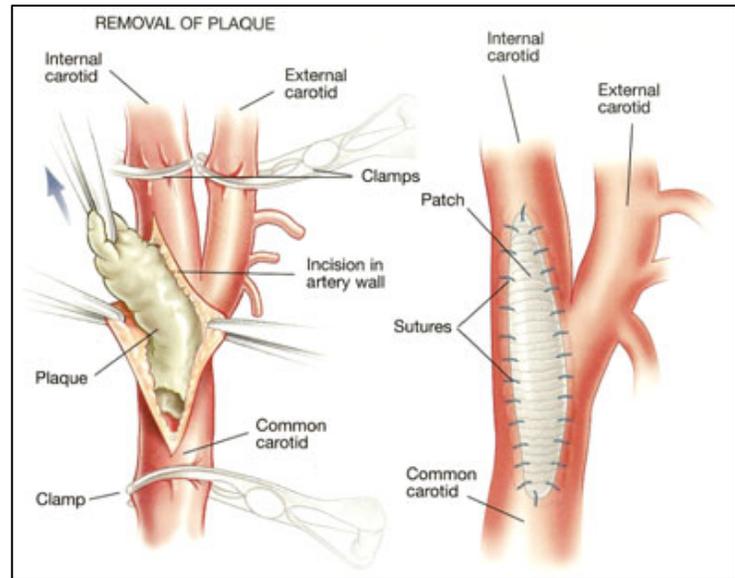


# Carotid Endarterectomy

**Anesthetic Pearls:** Recovery Room Complications of Carotid Endarterectomy

**Hypertension** – may occur as a result of damage or local anesthesia to the carotid sinus or its nerve and is profound in 20% of patients in the immediate recovery period. Patients who have systolic hypertension are at greater risk of developing a neurologic deficit than those patients who remain normotensive. Hypertension may worsen neurologic outcome by exacerbating the hyperperfusion syndrome with resultant intracerebral hemorrhage. Hyperperfusion is most likely to occur in patients with high grade stenosis who develop >100% increase in CBF after CEA. To minimize the risk of hemorrhage, normotension should be maintained in patients at risk for the hyperperfusion state.



**Hypotension** – after the removal of atheromatous plaques, increased stimulation of the baroreceptors may result in bradycardia and hypotension. Regional anesthesia may be associated with a higher incidence of postoperative hypotension while general anesthesia is more often associated with postoperative hypertension.

**Myocardial Infarction** – the most frequent cause of morbidity and mortality.

**Stroke** – most often embolic in origin.

**Bleeding** – airway obstruction has been attributed to neck hemotoma that may be worsened by hypertension. Newer data suggests that soft tissue swelling with edematous supraglottic mucosal folds compromises the airway occurs in patients after CEA.

**Cranial Nerve Injury** – occur in 10% of patients. Damage to the recurrent laryngeal nerve may compromise protective reflexes as well as cause airway obstruction. The most commonly injured nerves are the hypoglossal, vagus, recurrent laryngeal, and accessory nerves. Unilateral injury to any of the nerves is unlikely to cause symptomatology requiring immediate intervention in the post-op period. Bilateral injuries can result in upper airway obstruction (beware in patients with preexisting neck surgery).

**Carotid Body Damage** – results in reduced ventilatory response to hypoxemia and hypercapnia. Patients undergoing a second-side CEA merit extremely close observation.