

Indications for Carotid endarterectomy

Symptomatic patients

Patients with recent focal neurologic deficit either permanent or resolved (TIA), amaurosis fugax (retinal embolization), or imaging (CT or MRI) demonstrated infarction.

Stenosis greater than or equal to 50% defined by angiography, ultrasound, CT angiography, or MR angiography.

Exclusions:

1. Evidence of intracranial hemorrhage within 60 days.
2. Severe dementia or significant neurologic compromise limiting quality of life.

Timing:

As soon as possible, preferably within 48 hours of event, sooner if recurrent symptoms.

Medical management:

Critical component of management whether or not surgical therapy is to be offered:

1. Antiplatelet therapy with aspirin 81-325 mg daily, Plavix 75 mg daily, Aggrenox 25/200 mg twice a day, or Ticlopidine 250 mg twice a day.
2. Statin therapy if not contraindicated.
3. Beta blockade if not contraindicated.
4. Angiotensin-converting enzyme inhibitors if not contraindicated.
5. Hypertension control.
6. Smoking cessation

Relative risk reduction for stroke of combined medical therapy greater than 80%.

Asymptomatic patients

Stenosis greater than or equal to 70% by ultrasound, CT angiography, MR angiography or angiography.

Exclusion:

1. Life expectancy less than 5 years
2. High risk of adverse perioperative cardiovascular events.

Carotid stenting:

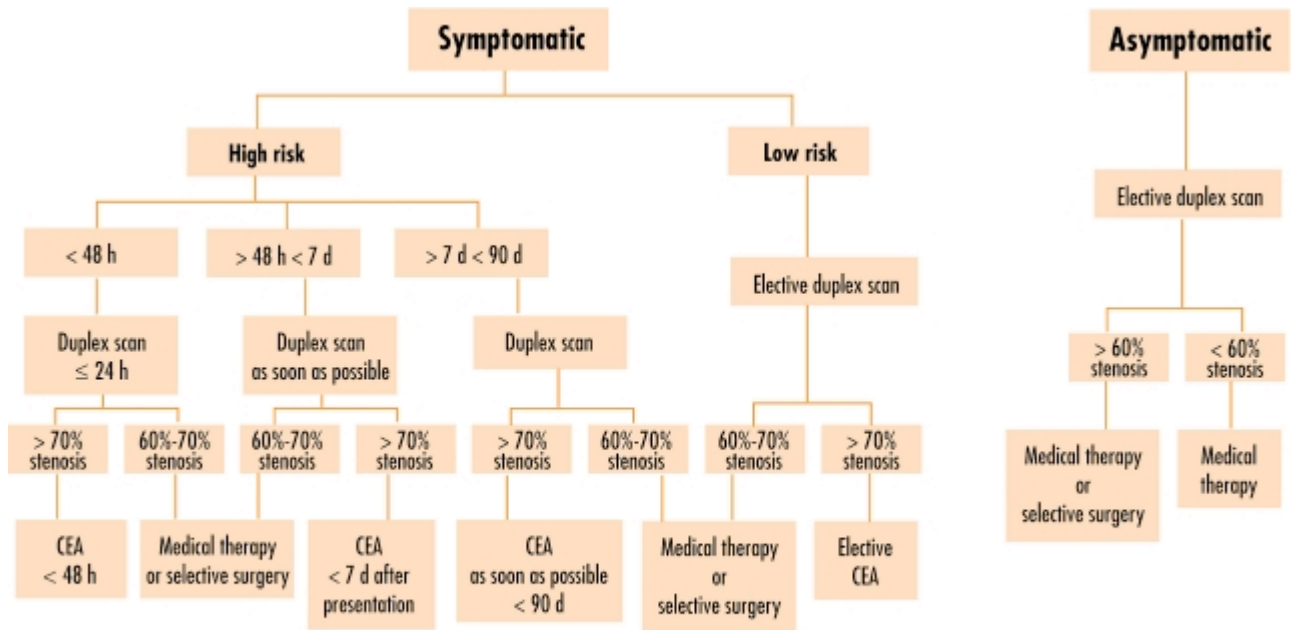
Similar indications with additional surgical contraindications:

1. S/p radiation treatment to neck
2. S/p radical neck surgery, previous carotid endarterectomy
3. Surgically inaccessible lesion (above C2)
4. Carotid dissection
5. Contralateral laryngeal nerve paralysis

Must be part of a post-marketing clinical trial for CMS reimbursement (PMC vascular surgeons included in Sapphire trial)

In general, carotid stenting has a higher risk of stroke (3-9%) versus surgery (2-3%, PMC stroke rate <1%). However, carotid endarterectomy has a higher rate of perioperative myocardial infarction compared with carotid stenting. As most of these myocardial infarctions were asymptomatic, the clinical significance is unclear.

Indications for Carotid endarterectomy



CEA—carotid endarterectomy. The benefit of CEA is realized in high-risk patients if surgery is performed within 48 hours of onset of symptoms. If this cutoff point is missed, the next cutoff point is less than 7 days, followed by less than 30 days, and finally less than 90 days. Patients who present with symptoms after 90 days should have CEA performed as soon as possible.