

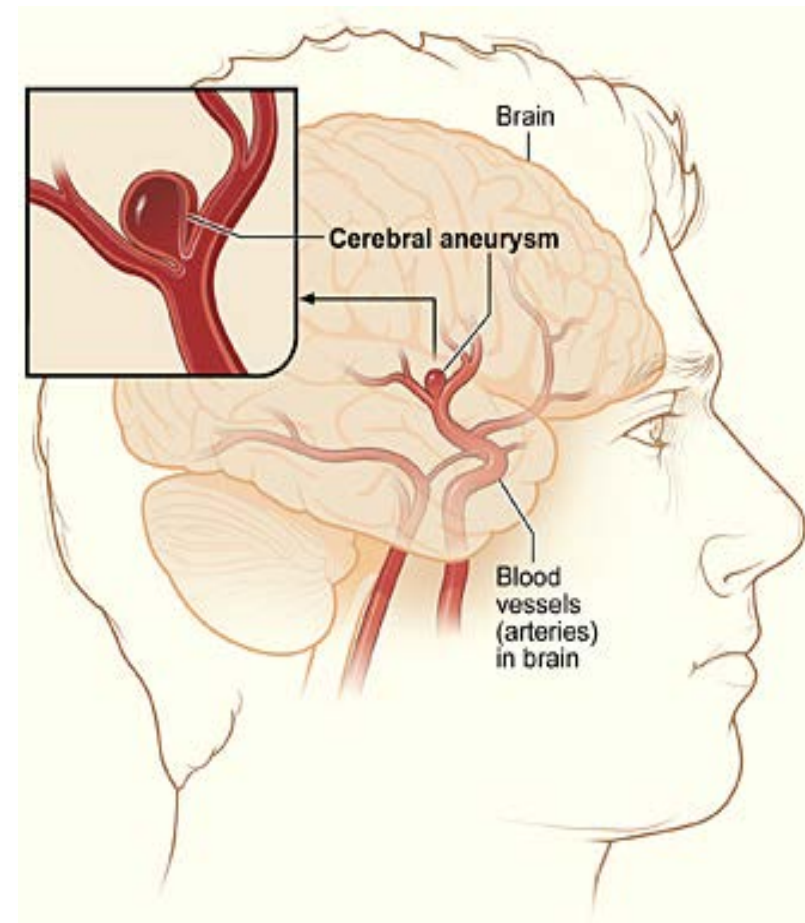
ICD-10 Code Request for Treatment of Intracranial Aneurysms using Flow Diverter Stent

Summary of Key Points

- Flow diverter stenting is a relatively new endovascular technique whereby a unique type of device is placed in the primary intracranial blood vessel to divert blood flow away from an aneurysm while keeping the vessel open
 - In contrast, coiling involves placing a device inside the aneurysm sac
- There are no unique ICD-10 codes to distinguish the use of a flow diverter stent from other stents or coiling implants to treat intracranial aneurysm
 - Thus there is no way to capture resources or track outcomes associated with the specific flow diverter stenting procedures
- We recommend that CMS establish a new ICD-10 code to indicate aneurysm treatment procedures using flow diverter stents

Aneurysm Prevalence Data

- Estimated 6 million (1/50) people in the US have an unruptured brain aneurysm
- Women, more than men, suffer from brain aneurysms at a ratio of 3:2
- Intracranial aneurysms are most prevalent in people ages 35 – 60, most develop after the age of 40



New Flow Diverter Technology

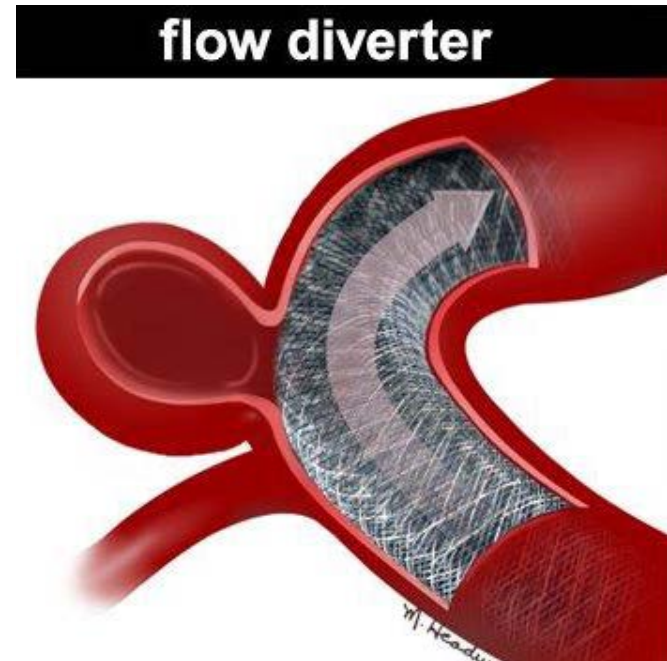
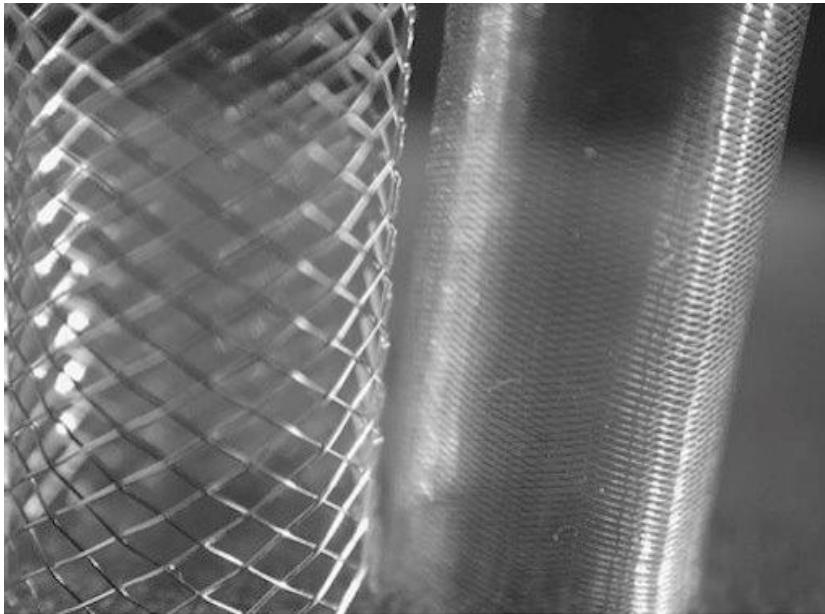
- Flow diverter stenting is a relatively new technique/treatment for aneurysms
- Two Flow Diverter implant devices have been FDA approved for the endovascular treatment of adults with nonruptured intracranial aneurysms.
 - Surpass Streamline
 - Pipeline Flex

Flow Diverter Stenting

- In flow diverter (FD) stenting, a unique type of device is placed in the primary intracranial blood vessel to divert blood flow away from an aneurysm while keeping the vessel open.
 - in contrast to placing a device *inside* aneurysm sac as is done with coiling
- FDs are low porosity tubular stent-like implants that have 2 main work mechanisms:
 - Flow redirection: The FD bridges the aneurysm neck and reduces the blood flow into the aneurysm sac because of increased impedance created by the mesh of the implant, yet providing blood flow through adjacent perforators and side branches. This redirects blood flow away from the aneurysm toward the distal parent artery. Reduction of blood circulation within the aneurysm leads to flow stasis and promotes formation of a stable aneurysmal thrombus.
 - Tissue overgrowth: The FD provides a scaffold for neoendothelialization across the aneurysm neck.

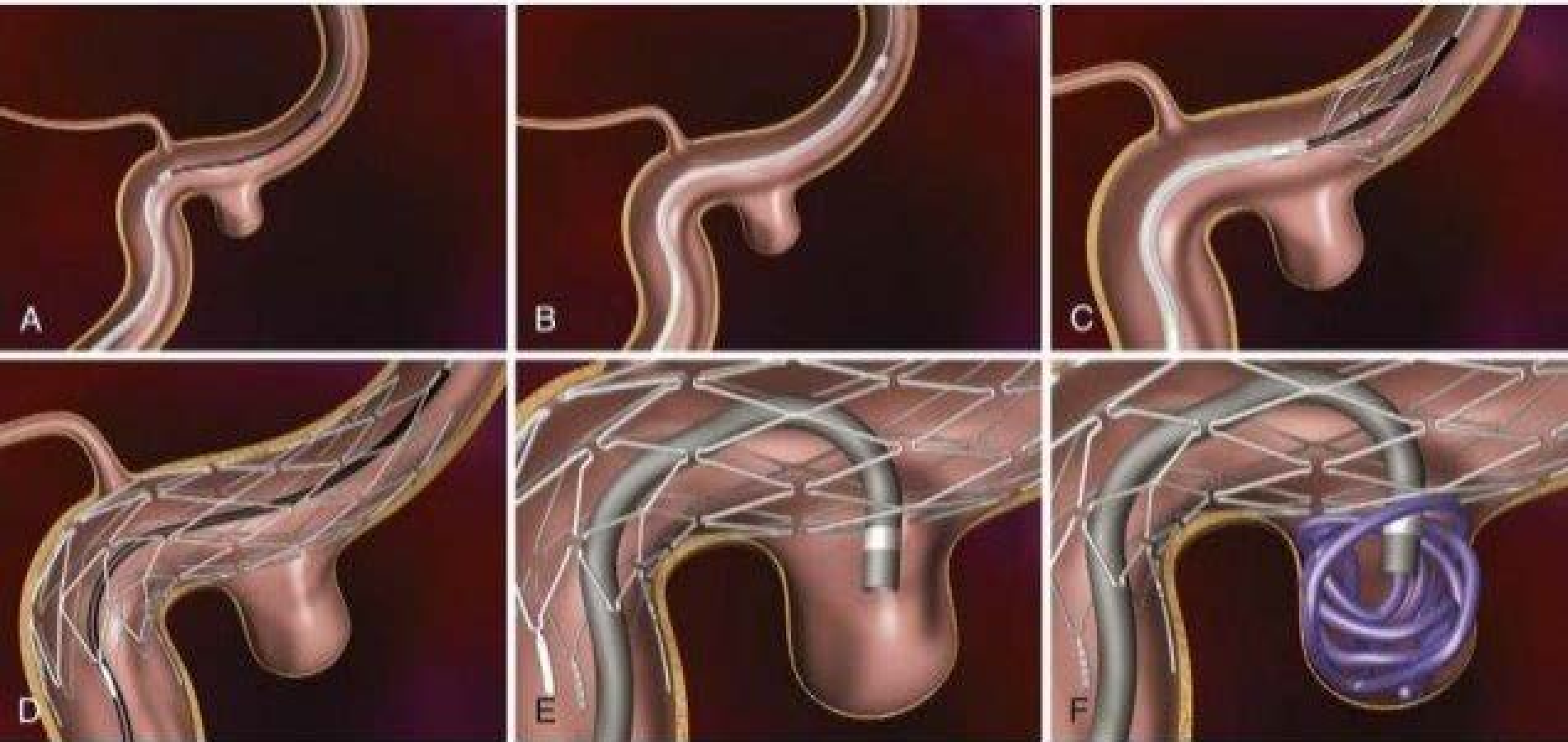
Comparison of Flow Diverter Stent and Traditional Stent

- Flow diverters have significantly higher mesh density than traditional vascular stent, which prevents flow in parent artery from entering the aneurysm, eliminating the need for a coil
- Reduction in blood flow is designed to promote blood stasis, endothelial growth across the neck, and occlusion of the aneurysm

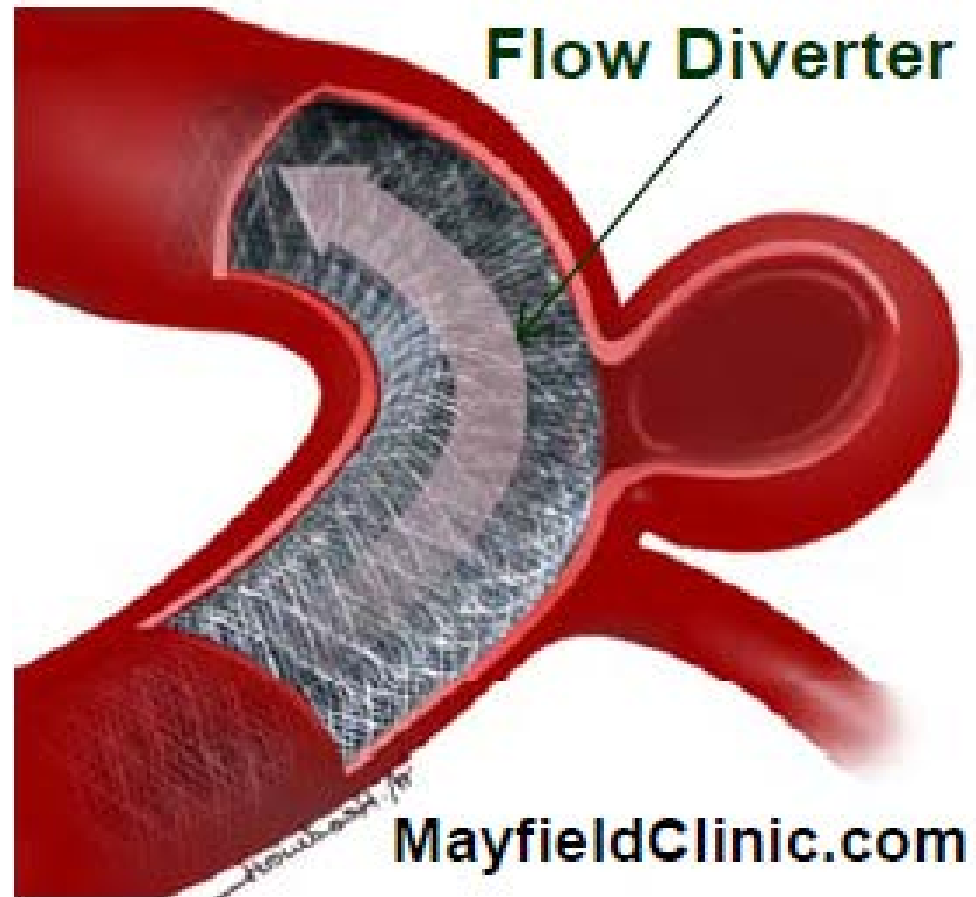
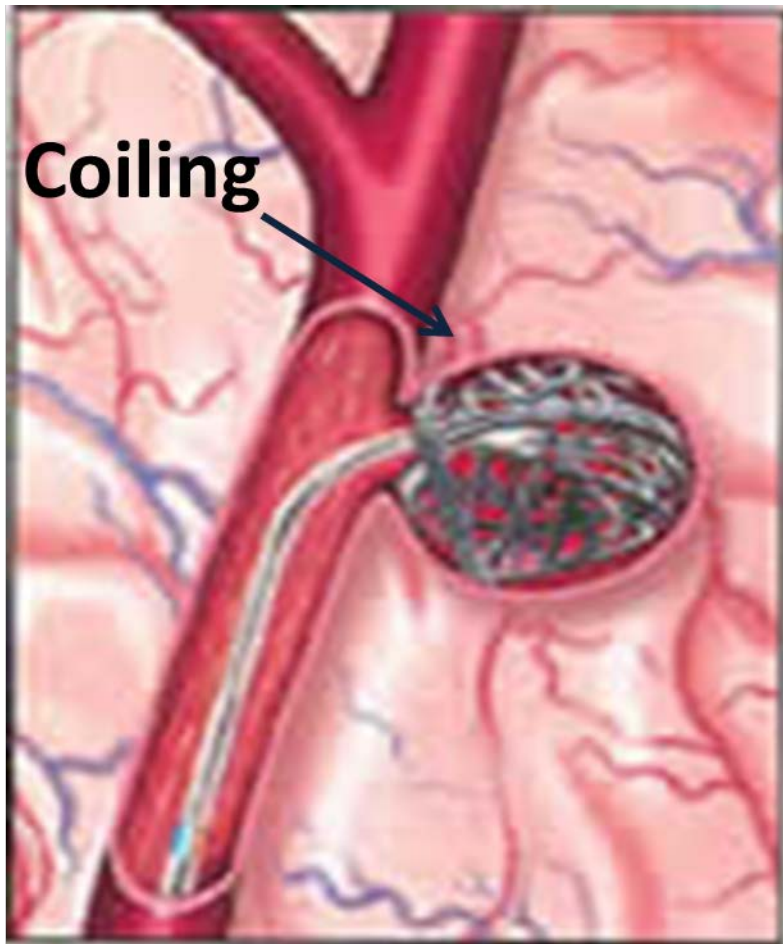


Stent Assisted Coiling

Stent is used to hold coils inside the aneurysm



Flow Diverter Stent Compared to Coiling



Benefits of Flow Diverter Stents

- Flow Diverter stents are the *only* devices capable of being a standalone therapy for aneurysm treatment without the need for other adjunctive devices
 - eliminate the need for coiling in the aneurysm
- Divert flow away from aneurysm sac creating sustained hemostasis
- Favorable long-term aneurysm occlusion
- Reduced procedure morbidity and mortality
- Reduced aneurysm recurrences

Wide Spread Clinical Recognition and Evidence for Flow Diverter Stent Procedure

Specialties recommend flow diversion stents in treatment of wide-necked cerebral aneurysms include:

- American Association of Neurological Surgeons (AANS)
- Congress of Neurological Surgeons (CNS)
- AANS/CNS Cerebrovascular Section
- American Society of Neuroradiology (ASNR)
- Society of Neurointerventional Surgery (SNIS)

THANK YOU

Questions?