

Surviving a stroke just got easier



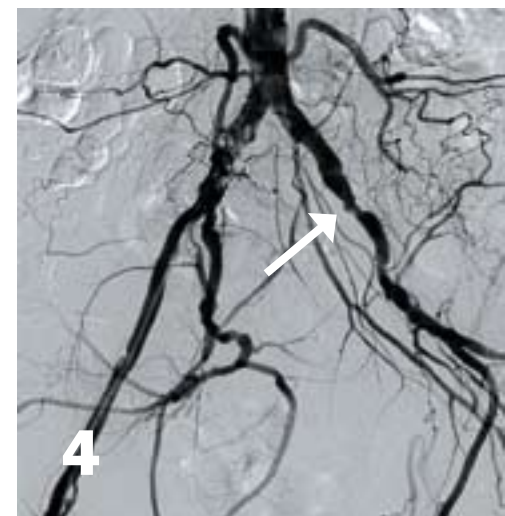
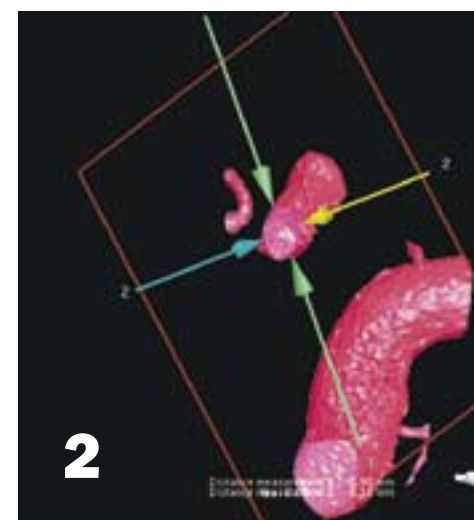
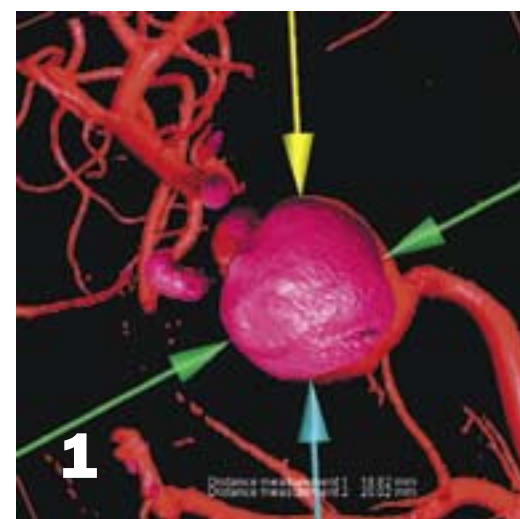
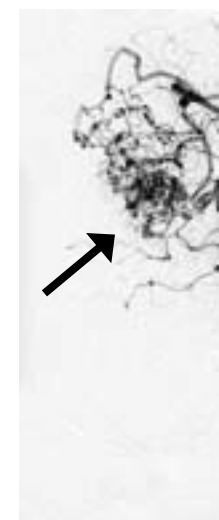
George Shanno, M.D.

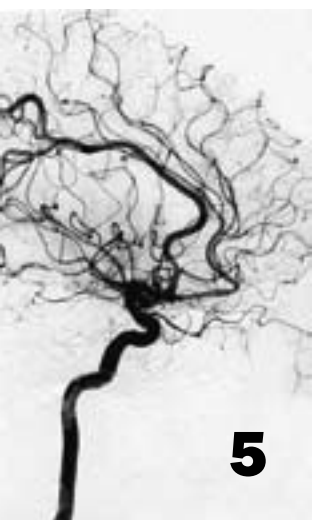
Your chances of surviving a brain attack (stroke) have improved. The new 3-D biplane cath lab at SWMC is making it easier for a neurosurgeon and a neurointerventionalist such as George Shanno, M.D., to get an accurate picture of what's going on inside your brain.

"This is the most advanced type of angiographic equipment which is specially used for neurointerventions," Dr. Shanno explains. "It's the most advanced biplane in the region at this time. It helps us do an even better job of what we already do."

Neurointervention refers to procedures done in the brain using catheters and x-ray equipment rather than surgery. Neurointervention can be used to treat brain aneurysms, arteriovenous (blood vessel) malformations, strokes and tumors. In most cases, the patient goes home the same day.

Dr. Shanno adds that the biplane's three-dimensional images "greatly improve our ability to do more minimally invasive spine procedures."

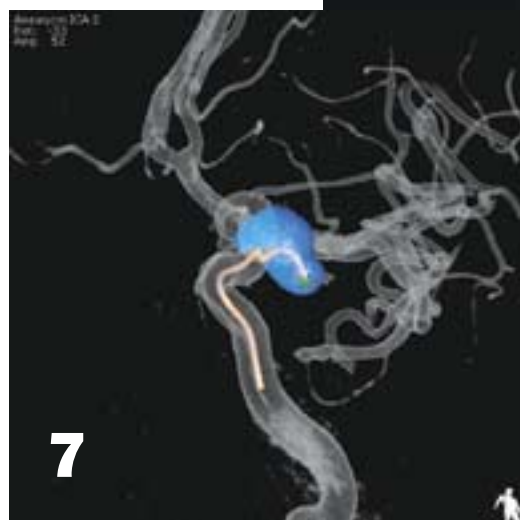




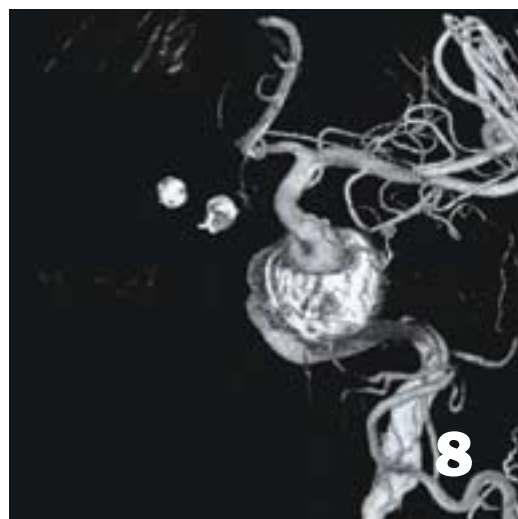
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1. Measuring an aneurysm in a fully three-dimensional view helps determine the internal space or volume of the aneurysm. The measurement helps more accurately plan treatment, such as the size, type and quantity of platinum coils needed to completely fill the aneurysm and stop blood flow into it.

2. Biplane technology allows more accurate measurement of the neck or opening into an aneurysm. This helps Dr. Shanno better plan the size of the catheter to be used to place the coils and the type of coils to be used.

3. In a lower abdominal aorta, a large aneurysm is easily seen. An aneurysm is a bulge of the artery wall where the wall is weakened. A rupture in an aneurysm of this size would most likely result in death. The small figure in the lower right shows the plane or angle in which the image is displayed.

4. The lower end of the abdominal aorta divides into the iliac arteries, which supply blood to the pelvis and legs. The digitally subtracted (meaning the computer in the biplane unit digitally removes bone and soft tissue, leaving a clear view of the blood vessels) image shows severe narrowing on the left side (arrow) which can be treated with a stent to open the vessel.

5. A network of blood vessels feeding the brain creates a shadowy outline of the brain in this side view image. This image is digitally subtracted, leaving a clear view of the blood vessels. The internal carotid artery comes up from the bottom of the image. The arrow shows blood vessel abnormality (arteriovenous malfunction or AVM).

6. The biplane's computer creates a three-dimensional reconstruction of a cerebral (brain) aneurysm in the internal carotid artery, highlighting the aneurysm in blue. This helps identify normal vessels which may be around the aneurysm.

7. Platinum coils, often smaller than human hair, are threaded through a microcatheter (simulated in the image) into a cerebral artery. Dr. Shanno inserts as many coils as needed to fill the aneurysm.

8. The aneurysm is filled with platinum coils which, combined with coagulating blood, seals the aneurysm. This process significantly reduces the chance of rupture.

9. Inserting a covered stent into an abdominal aortic aneurysm can seal off the defective portions of the vessel, greatly reducing the possibility of death or damage from a rupture. The stent lines the inside of the vessel with a new wall. Blood can flow freely through. The image shows a virtual stent simulating the effect of a real stent.

10. In this image, a virtual stent is inserted into the carotid artery to repair a very narrowed portion. The actual stent is placed inside the vessel to open the vessel for better blood flow. This mesh stent differs from the covered stent in image No. 9 as the walls in this vessel do not need to be sealed.

STROKE SUPPORT

● Sept. 8, Oct. 13, 2 p.m., free, Church of the Nazarene, 2000 Lewis River Road (SR 503), Woodland, WA

● Sept. 16, Oct. 21, 2 p.m., free, disAbility Resources Office, 5510 N.E. 109th Court, Suite N, Vancouver, WA

SWMC Comprehensive Stroke Center in collaboration with disAbility Resources of Vancouver sponsors stroke support groups for stroke survivors and their families. Sessions feature information education and socializing. Call (360) 514-3273 for more information.