

My doctor says I should have a TEE.

Can you tell me more about this procedure?

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A transesophageal echo, or TEE, is an alternate way of performing an echocardiogram or ultrasound of the heart. A transesophageal probe contains an ultrasound transducer at the tip and is placed in the esophagus, or food pipe, by the cardiologist while the patient is sedated by an anesthesiologist. A TEE results in much clearer ultrasound pictures of the heart and major blood vessels as well as Doppler blood flow measurements.

The TEE can image structures that are difficult to see with transthoracic echo or TTE, which is performed from the chest wall. This is because the esophagus sits directly behind the heart. Therefore, the ultrasound waves travel less distance and through fewer tissues, reducing the weakening of the signal. Several structures can be visualized better with TEE, including the heart valves, the atrial septum, the left atrial appendage and the aorta.

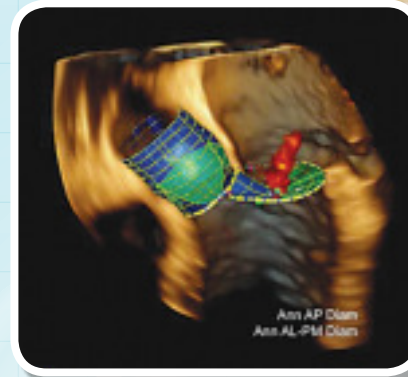
During TEE, three dimensional ultrasound can be performed yielding 3D anatomical images and Doppler flow measurements of heart valves. This is vitally important in determining valve structure, function and pathology when planning for heart valve surgical or transcatheter repair or replacement. In addition, precise measurements of heart chamber size can be obtained in order to calculate an accurate assessment of heart pumping function or ejection fraction.

TEE is often performed in patients after a cerebrovascular accident or

Dr. Stone performs
a transesophageal
echocardiogram
or TEE



Image of Aorta
and mitral
valve using 3D
reconstruction



stroke. TEE is very good at identifying thrombus (blood clot) in the left atrium, the cause of stroke in patients with a heart rhythm disturbance called atrial fibrillation. Sometimes, TEE is performed in patients with atrial fibrillation prior to procedures such as radiofrequency catheter ablation or electrical cardioversion to make certain a thrombus is not present. In addition, one can evaluate for an intracardiac shunt, and aortic atherosclerosis or plaque, both of which can lead to stroke.

In summary, TEE offers a clearer window to the heart, providing the cardiologist, cardiac surgeon and neurologist essential information used to diagnose and treat a variety of heart and vascular conditions.

**For more information or to make an appointment with a cardiologist
from the NCH Heart Institute, call (239) 624-4200.**