



## Denton A. Cooley, M.D., and Michael E. DeBakey, M.D. Houston Heart Surgeons



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Cooley



DeBakey

*Denton A. Cooley (1920–) and Michael E. DeBakey (1908–), two Houston surgeons, pioneered heart surgery techniques and human and artificial heart transplantation.*

**M**ichael DeBakey and Denton Cooley revolutionized heart surgery in the 1950s and 1960s. They and their medical teams established world standards for heart surgery in newborns, for replacing diseased arteries, and for replacing diseased heart valves with artificial ones. They transplanted the first hearts, both artificial and human, in this country. The two doctors worked separately in Houston, where they became personal and professional rivals.

**DeBakey** Michael DeBakey was born in 1908 in Lake Charles, Louisiana, and earned his medical degree from Tulane University in 1932. He became head of the Department of Surgery at Baylor University in Houston in 1948 and president of the Baylor College of Medicine in 1969. He pioneered groundbreaking techniques in cardiovascular surgery, especially in open-heart surgery.

DeBakey invented or perfected many medical devices and techniques. On August 31, 1968, he and his team performed the world's first simultaneous (happens at the same time) multiorgan transplant, removing two kidneys, a lung, and a heart from one donor and implanting them into four different patients. He replaced human blood vessels with Dacron® synthetic fiber vessels and was the first to use surgery to repair an aneurysm (a permanent swelling of an artery). DeBakey helped make bypass heart operations, heart transplants, and artificial hearts and heart pumps a regular part of medicine today. He has performed more than 60,000 operations and has trained thousands of surgeons.

**Cooley** Denton Cooley was born in Houston in 1920. He earned his medical degree from Johns Hopkins, where he assisted in the first “blue baby” operation to correct an infant's heart defect. In 1956, Cooley

performed the first open-heart operation in the southern United States. In the 1960s, he introduced bloodless heart surgery and performed the first successful heart transplant in the country. In 1969 he implanted the first totally artificial heart in a human, as well as performing the first combination heart and lung transplant. He and his team have performed nearly 100,000 open-heart operations, more than any other group in the world. He is president and surgeon-in-chief at the Texas Heart Institute in Houston.

**Rivalry** Though DeBakey had been working on artificial heart devices for ten years, Cooley was the first to put one in a patient. After Cooley put in the device, DeBakey accused him of stealing his work and of not obtaining proper consent for the procedure. Cooley then left Baylor and devoted himself to his Texas Heart Institute.

### Review Questions

1. Why did DeBakey become upset with Cooley?
2. What is a “simultaneous multiorgan transplant”?

### Critical Thinking

3. **Making Inferences** What event in Cooley's education might have influenced him to become a heart surgeon?
4. **Drawing Conclusions** Many of Cooley and DeBakey's patients lived only a short time after receiving transplanted organs. Were the surgeries worth the trouble? Justify your answer.