Cardiothoracic Surgery
The physicians of Englewood Cardiac Surgery Associates and the staff of Englewood Hospital and Medical Center take great pride in presenting this brochure illustrating the results and accomplishments of our cardiac surgery program. With a highly motivated and accomplished team, this program has emerged as the area's most comprehensive and successful cardiac surgery unit.

As we enter our 8th year, another highly experienced surgeon has been recruited to complement the extensive array of procedures performed with his experience in repair of the mitral valve.

We are pleased to offer this guide to our services and results with the goal of bringing the best possible cardiothoracic surgery to all patients in the region.

Thank you for your time, and should you have any questions, or wish to refer a patient, please do not hesitate to contact our office at:

    Phone: 201.894.3636    Fax: 201.541.2188

Sincerely,

M. Arisan Ergin, MD, PhD          James J. Klein, MD          Jock M. McCullough, MD
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The comprehensive nature of the cardiac surgery program at Englewood Hospital and Medical Center (EHMC) is unique within the state for its variety of expertly performed operations. The breadth of experience allows for the management of all types of adult cardiac surgery problems. The team oriented approach developed at Englewood Hospital and Medical Center has encouraged the creation of “specialists within the specialty.” This offers all patients expertise in procedures that are rarely, if ever, performed at other programs in New Jersey. Such unique operations include the repair of ascending aortic aneurysms by utilizing techniques that will allow for the conservation of the native valve, thereby avoiding the complications associated with a prosthetic valve replacement. The group has an established, international reputation in the management of thoracic aortic disease and a significant experience in less invasive thoracic endografting. Englewood Cardiac Surgery Associates has also established itself as a leader in mitral valve repair which is performed in over 90% of all non-rheumatic mitral insufficiency cases.
In contrast to other Bergen County cardiac surgery programs, Englewood Hospital and Medical Center surgeons perform a substantially larger proportion of complex open-heart procedures (operations other than isolated CABG). Their reputation for performing complex surgical procedures is a result of the unified team approach developed at the Medical Center to allow for expert care to be delivered to every patient regardless of the complexity of the problem.
As further demonstration of the ability of this team to successfully perform the most difficult procedures, the proportion of reoperations done at Englewood Hospital and Medical Center has more than doubled over the last year. Reoperations now comprise almost 15% of all surgery. The expertise of the team has allowed for these operations to be performed with an extremely low morbidity and mortality, which has been associated with an increase in referrals to manage these difficult patients.
**Englewood Cardiac Surgery Associates** and Englewood Hospital and Medical Center have documented superior outcomes since the inception of the program. For isolated coronary artery bypass surgery, the hospital’s mortality rate (not risk-adjusted) is 0.69% (2000-2007). This mortality rate includes reoperations. This is a substantially lower mortality rate than the New Jersey statewide average of 1.98% for 2004 and the Society of Thoracic Surgeons (STS) nationwide database average — a 1.8% mortality rate in 2006.

**CABG Mortality**

- New Jersey (2004): 1.98%
- STS (2006): 1.8%
- Englewood Hospital and Medical Center (2000-2007): 0.69%
As a result of the meticulous attention brought to each procedure, the group at Englewood Hospital and Medical Center has posted a 0% mortality following reoperative isolated coronary bypass surgery for the period of 2000 through 2007. This is a substantial improvement over the STS national benchmark of 3.4% (2006).
The cardiac surgery team at Englewood Hospital and Medical Center has been committed to the performance of open-heart surgery without the use of blood or blood products since the program’s inception. They have developed a process which currently allows approximately 80% of all patients undergoing open-heart surgery to be operated on without blood or blood product transfusions. This includes all open-heart surgical patients (reoperations, aneurysms, aortic dissections etc.).

The avoidance of blood during open-heart surgery has been shown to significantly reduce the incidence of renal failure, stroke, pneumonia and death following open-heart surgery. (*J Card Surg.* 2007 Sep-Oct;22(5):373-8)
As a marker of quality, the patients operated on at Englewood Hospital and Medical Center have a substantially shorter length of stay as compared to patients operated on at other programs throughout the state.
Mitral Valve Repair

With the addition of Dr. Jock McCullough to the Englewood Cardiac Surgery team, the group has reaffirmed its commitment to the repair of the regurgitant mitral valve. Mitral valve repair protects the patient from all the known morbidity associated with prosthetic replacement and, in some cases, will allow the patient’s long-term survival to equal that of an age matched population. Dr. McCullough is an established regional leader in mitral valve repair and now repairs over 90% of all non-rheumatic mitral valves.
Dr. McCullough’s series of mitral valve repairs has had a 0% mortality over the last seven years as compared to the nationwide average of 1.7% (STS database 2006) for repair and 5.1% for mitral valve replacement (STS 2006).
Building on their experience with therapy of aneurysmal disease, the Department of Cardiothoracic Surgery — in collaboration with Theresa Impeduglia, MD and Ignatios Zairis, MD of the Department of Vascular Surgery — is now one of the largest implanters of thoracic endografts in the State. They are able to offer this less-invasive and less-morbid approach to disease of the thoracic aorta in over 50% of the patients referred for management of such problems. The Department of Vascular Surgery at Englewood Hospital is renowned for pioneering protocols that have been adapted for use in hospitals around the world.
As their experience with less invasive endografting increases, the group at Englewood Hospital and Medical Center has been able to offer this technique to an ever increasing variety of patients with diseases of the thoracic aorta. This has resulted in substantially improved outcomes over traditional approaches to aortic disease.

PATHOLOGY TREATED WITH THORACIC AORTIC ENDOGRAFTING
ANEURYSM TYPE

- Descending: 32%
- Arch: 12%
- Penetrating Ulcer: 24%
- Type B Dissection: 12%
- Ruptured Thoracic: 12%
- Thoracoabdominal: 8%

Cardiothoracic Surgery at Englewood Hospital and Medical Center
As compared to a national database (STS) report on open repair of aneurysms of the descending aorta, the mortality rate achieved at Englewood Hospital and Medical Center with endografting offers a significant improvement for patients who are candidates for the endograft repair.

MORTALITY FOLLOWING ENDOGRAFTING

- **STS 2006 (open repair)**
  - Descending Thoracic Aorta: 17.6%
  - Thoracoabdominal: 19.3%

- **Englewood Hospital and Medical Center (Endografts)**
  - Descending Thoracic Aorta: 0%
  - Thoracoabdominal: 0%
As one of the few programs in the country with established expertise in valve sparing aortic replacement for aneurysmal disease, the surgeons at Englewood Hospital and Medical Center now offer this approach to one third of their patients with aneurysms of the ascending aorta and root. Appropriate candidates will enjoy the benefits of having their aneurysm repaired without the added morbidity of prosthetic valve replacement.
M. Arisan Ergin, MD, PhD is the chairman of the Department of Cardiothoracic Surgery and co-founder of the program at Englewood Hospital and Medical Center. His achievements over a career spanning three decades include the attainment of a full Professorship at The Mount Sinai Medical Center where Drs. Ergin, Klein and McCullough first met. Dr. Ergin’s authorship of more than 90 original scientific publications has earned him an international reputation for his expertise on surgery of the aorta. His goal of building the finest cardiac surgery unit in the region has been realized at Englewood Hospital and Medical Center.

James Klein, MD is the co-founder of the program at Englewood Hospital and Medical Center. He is a cum laude graduate of the combined BS/MD program of the City University of New York. His practice encompasses the full spectrum of acquired cardiac and general thoracic surgery. Dr. Klein’s special interest is in the emerging field of intraluminal endografting for thoracic aortic aneurysms. His ongoing academic interests are blood conservation during cardiac surgery and thoracic endografting.

Jock McCullough, MD joined Englewood Cardiac Surgical Associates this year. He is an Alpha Omega Alpha graduate of the New Jersey Medical School. After training with Drs. Ergin and Griepp at Mount Sinai he started his career as an assistant Professor on their staff. Dr. McCullough has over 30 original scientific publications. After 7 years in private practice he was reunited with Drs. Ergin and Klein at Englewood Hospital and Medical Center. His clinical interests are in the evolving field of mitral valve repair and acquired valve disease.

Many teams have visited the program at Englewood Hospital and Medical Center to learn techniques, including visits from: Duke University, Methodist DeBakey Heart Center, University of Connecticut, St. Louis University and Moscow Russia.
Englewood Hospital and Medical Center is a 520-bed, acute care, community-teaching hospital located in Englewood, New Jersey, and is affiliated with the Mount Sinai School of Medicine in New York City. A leader in innovative services, Englewood Hospital offers a broad range of state-of-the-art, nationally and internationally recognized clinical programs including, the Leslie Simon Breast Care and Cytodiagnostic Center, The New Jersey Institute for the Advancement of Bloodless Medicine and Surgery, and The Heart and Vascular Institute of New Jersey.

Additionally, the Medical Center has achieved Magnet status — a prestigious distinction for extraordinary patient care achieved by only 4% of all U.S. hospitals — by the American Nurses Credentialing Center (ANCC) of the American Nurses Association.