

Transplant Center 2010 Report

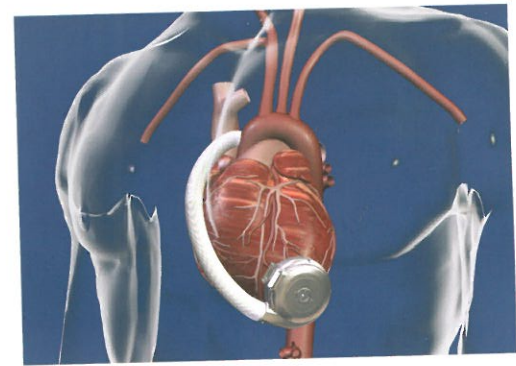
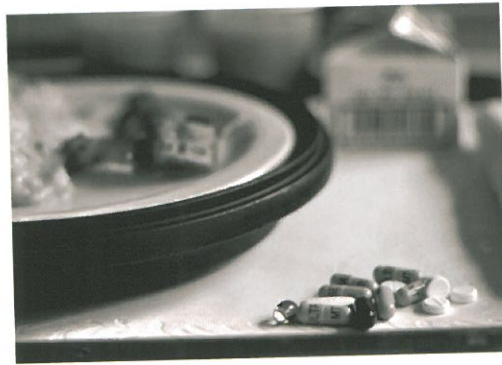
Barnes-Jewish Hospital and
Washington University Physicians



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Hospital
BJC HealthCare

 **Washington**
University in St. Louis
Physicians

NATIONAL LEADERS IN MEDICINE



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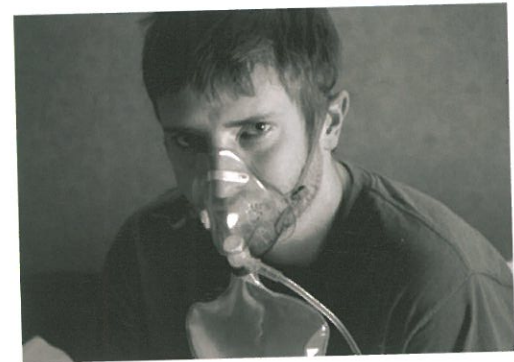
DONATED HUMAN ORGAN/TISSUE for TRANSPLANT

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ADDRESS: 1000 N. 10th St.
CITY: WISCONSIN STATE: WI ZIP: 53101

DATE: 10/10/01 TIME: 10:00

HANDLE WITH CARE

Date	Time	Initial



Physicians,

We would like to share with you, our referring physician partners, recent highlights of the unprecedented progress, growth and innovation at the Washington University and Barnes-Jewish Hospital Transplant Center. Years of work by our extraordinary team of Washington University physicians and Barnes-Jewish Hospital staff have culminated in milestones that not only made news but offered patients opportunities to receive the gift of life through transplantation.

Among those milestones:

- The Barnes-Jewish and Washington University artificial heart program finished 2009 – **their 22nd year of implanting cardiac assist devices – by implanting more devices [52] than donor hearts [23].**
- The **kidney-pancreas transplant program grew by 80 percent** in 2009, showing a renewed focus in multi-organ transplants for patients with type 1 diabetes and renal failure.
- Washington University lung transplant surgeons reached a milestone Jan. 21, 2009, when they performed the **1,000th adult lung transplant** at Barnes-Jewish Hospital.
- The Barnes-Jewish transplant center implemented its matched paired kidney program, participating in the **first matched paired transplant in St. Louis** on Feb. 24, 2009, and an **ABO and HLA incompatible program** to give as many patients as possible the advantage of a living donor transplant.
- Barnes-Jewish and Washington University physicians **performed a record 358 transplants in 2009**, placing the program at the top of transplant centers in the region. Outcomes for all organ transplants also meet or exceed national standards.

It is our privilege and honor to serve as your partners in the care we provide to patients from the heart of the Midwest and around the world. The transplant team provides a wide breadth of expertise, and we continue to advance patient care through our commitment to being national leaders in transplant surgery and medicine. We thank you for your support and will continue to keep you informed of developments in our program.

Sincerely,

Transplant Center Team
Barnes-Jewish Hospital
Washington University Physicians



Jeffrey S. Crippin, MD
Professor, Medicine
Medical Director, Liver

William C. Chapman, MD
Professor, Surgery
Surgical Director, Liver



Daniel C. Brennan, MD
Professor, Medicine
Medical Director, Kidney

Jason R. Wellen, MD
Assistant Professor, Surgery
Surgical Director, Kidney



Gregory A. Ewald, MD
Associate Professor, Medicine
Medical Director, Heart

I-wen Wang, MD, PhD
Assistant Professor, Surgery
Interim, Surgical Director, Heart



Elbert P. Trulock III, MD
Professor, Medicine
Medical Director, Lung

G. Alexander Patterson, MD
Professor, Surgery
Surgical Director, Lung



Christina L. Martinez Klein, MD
Assistant Professor, Medicine
Medical Director, Pancreas

Jason R. Wellen, MD
Assistant Professor, Surgery
Surgical Director, Pancreas



Liver Transplant



Transplant hepatology

Jeffrey S. Crippin, MD, *Professor, Medicine, Medical Director*
Kevin Korenblat, MD, *Associate Professor, Medicine*
Mauricio Lisker-Melman, MD, *Professor, Medicine*

Liver transplant surgery

William C. Chapman, MD, *Professor, Surgery, Surgical Director*
Christopher D. Anderson, MD, *Assistant Professor, Surgery*
Jeffrey A. Lowell, MD, FACS, *Professor, Surgery*
Maria B. Majella Doyle, MD, FRCS, *Assistant Professor, Surgery*
Surendra Shenoy, MD, PhD, *Professor, Surgery*

Advances in treatment

- **Cholangiocarcinoma protocol** – A regional referral center for bile duct cancer, Barnes-Jewish Hospital is one of the few centers in the country that has a protocol for treating bile duct cancer, including liver transplant, and is among the top centers in the country in the number of bile duct cancer patients treated. Clinical studies show that patients treated in centers that specialize and have a depth of experience have better outcomes.
- **Commitment to new patients** – Washington University liver cancer and liver transplant physicians have committed to evaluating new patients within two weeks of referral.

National leaders in ideas and innovation

- Members of the Washington University and Barnes-Jewish Hospital liver transplant and liver cancer team shape thought and policy in the medical and transplant worlds by serving in leadership and policy-making roles for national societies, including the American Society for Transplantation (AST) and the United Network for Organ Sharing (UNOS).
- Team members are also involved in cutting-edge clinical and basic research into liver transplant, liver cancer and liver surgery-related problems.

LIVER

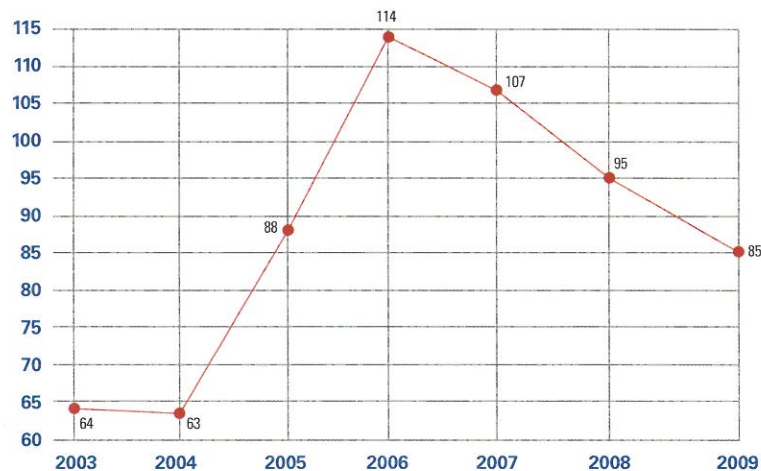
Liver Transplant Outcomes National Average for Transplant Centers Versus Barnes-Jewish Hospital

Number of Adult Transplants	Barnes-Jewish
Number of Liver Transplants performed in 2009	85

Patient Survival <i>All patients from deceased donors</i>	National	Barnes-Jewish
1 month - Proportion of liver transplant patients surviving at 1 month post-op from deceased donor	96.6%	95.4%
1 year - Proportion of liver transplant patients surviving at 1 year post-op from deceased donor	88.2%	90.2%
3 year - Proportion of liver transplant patients surviving at 3 year post-op from deceased donor	77.6%	84.4%

Graft Survival	National	Barnes-Jewish
1 month - Proportion of liver transplant grafts surviving at 1 month post-op from deceased donor	94.3%	93.9%
1 year - Proportion of liver transplant grafts surviving at 1 year post-op from deceased donor	84.2%	88.7%
3 year - Proportion of liver transplant grafts surviving at 3 year post-op from deceased donor	72.6%	77.9%

Number of Liver Transplants in Adult and Pediatric Patients



Kidney Transplant



Transplant nephrology

Daniel C. Brennan, MD,
Professor, Medicine, Medical Director
George Jarad, MD, *Instructor, Medicine*
Tingting Li, MD, *Assistant Professor, Medicine*
Christina L. Martinez Klein, MD,
Assistant Professor, Medicine
Brent Miller, MD, *Associate Professor, Medicine*
Marcos Rothstein, MD, *Professor, Medicine*
Georges Saab, MD, *Assistant Professor, Medicine*
Andrew M. Siedlecki, MD, *Instructor, Medicine*

Kidney transplant surgery

Jason R. Wellen, MD,
Assistant Professor, Surgery, Surgical Director
Christopher D. Anderson, MD,
Assistant Professor, Surgery
Majella Doyle, MD, FRCS (I), *Assistant Professor, Surgery*
Jeffrey A. Lowell, MD, FACS, *Professor, Surgery*
Surendra Shenoy, MD, PhD, *Associate Professor, Surgery*

New physicians on staff

George Jarad, MD - **Transplant nephrologist**



Dr. Jarad specializes in renal failure, dialysis and kidney transplant management. He is a graduate of Damascus University School of Medicine. He completed his residency at MetroHealth Medical Center, Case Western Reserve University in Cleveland,

where he also completed both a clinical and a research fellowship. He completed a fellowship in nephrology at Washington University School of Medicine.

Tingting Li, MD - **Transplant nephrologist**



Dr. Li specializes in kidney disease, dialysis management and the management of renal failure and kidney transplant. Dr. Li graduated from State University of New York-Buffalo School of Medicine. She completed her residency and a fellowship in nephrology.

Andrew M. Siedlecki, MD - **Transplant nephrologist**



Dr. Siedlecki specializes in renal failure, dialysis and kidney transplant management. He received his medical degree from the University of South Florida Medical School in Tampa. He completed his residency at the University of Alabama –

Birmingham Medical Center and his fellowship in nephrology at Washington University School of Medicine. His areas of research interest include exploration of new treatments for acute kidney injury in patients with chronic kidney disease and patients receiving renal transplants.

Georges Saab, MD - **Transplant nephrologist**



Dr. Saab specializes in treating kidney transplant recipients. He is a graduate of the University of Missouri-Columbia Medical School. He completed his residency and a fellowship in nephrology at Barnes-Jewish Hospital and Washington University.

More options for kidney transplant

The Washington University and Barnes-Jewish Hospital kidney transplant program offers a range of innovative transplant options in order to allow the greatest number of patients to receive organs and to reduce wait time. In 2009, Barnes-Jewish had a record year with 187 kidney transplants.

Transplant options offered throughout 2009 included paired kidney exchange (PKE); an ABO incompatible program as well as a desensitization program for HLA-sensitive transplants and a significant increase in the usage of pediatric en-bloc kidneys.

- Exchanged kidney pairs with more than a dozen patients across the country.
- Close relationships with more than 40 transplant centers to find potential matched pairs for kidney exchange.
- Member of National Kidney Registry, Johns Hopkins Registry and part of the very select nationwide Kidney Paired Donation Pilot Program run by UNOS.
- In March 2009, performed the first pediatric en-bloc kidney transplants, in which two kidneys from an infant are transplanted into an adult patient.

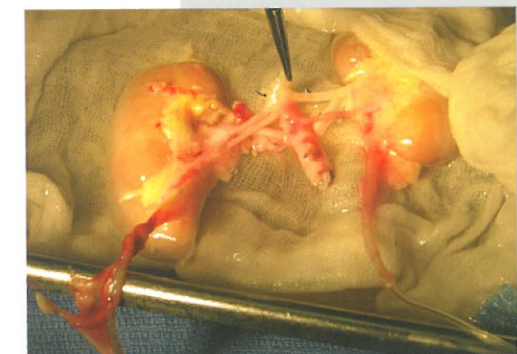
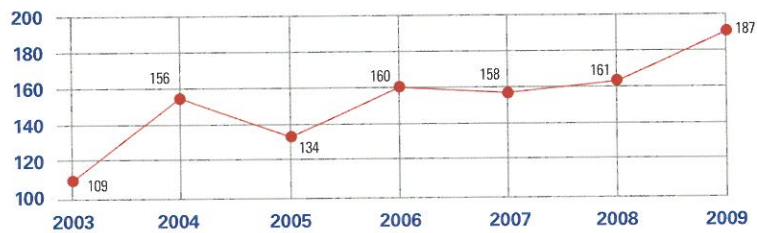
Kidney Transplant Outcomes National Average for Transplant Centers Versus Barnes-Jewish Hospital

Number of Transplants	Barnes-Jewish
Number of Kidney Transplants performed in 2009	187

Patient Survival	National	Barnes-Jewish
1 year - Deceased Donor: Proportion of kidney transplant patients surviving at 1 year post-op	95.4%	98.9%
1 year - Living Donor: Proportion of kidney transplant patients surviving at 1 year post-op	98.5%	99.1%
1 year - Overall: Proportion of kidney transplant patients surviving at 1 year post-op overall	96.6%	99%
3 year - Deceased Donor: Proportion of kidney transplant patients surviving at 3 year post-op	88.1%	95.4%
3 year - Living Donor: Proportion of kidney transplant patients surviving at 3 year post-op	94.9%	95.3%
3 year - Overall: Proportion of kidney transplant patients surviving at 3 year post-op	91.0%	95.3%

Graft Survival	National	Barnes-Jewish
1 year - Deceased Donor: Proportion of kidney transplant grafts surviving at 1 year post-op	91.0%	96.6%
1 year - Living Donor: Proportion of kidney transplant grafts surviving at 1 year post-op	96.4%	95.8%
1 year - Overall: Proportion of kidney transplant grafts surviving at 1 year post-op	93.1%	96.3%
3 year - Deceased Donor: Proportion of kidney transplant grafts surviving at 3 year post-op	79.4%	89.5%
3 year - Living Donor: Proportion of kidney transplant grafts surviving at 3 year post-op	89.1%	92.6%
3 year - Overall: Proportion of kidney transplant grafts surviving at 3 year post-op	83.4%	91.1%

Number of Kidney Transplants in Adult and Pediatric Patients





Heart Transplant



Heart transplant/failure

Gregory A. Ewald, MD, *Associate Professor, Medicine, Medical Director*
Edward M. Geltman, MD, *Professor, Medicine*
Susan M. Joseph, MD, *Assistant Professor, Medicine*
Joel Schilling, MD, PhD, *Instructor, Medicine*
Douglas L. Mann, MD, *Professor, Medicine*

Heart transplant surgery

I-wen Wang, MD, PhD,
Assistant Professor, Surgery, Surgical Director, Interim
Marc R. Moon, MD, *Professor, Surgery*
Michael K. Pasque, MD, *Professor, Surgery*

Heart Transplant Milestones

- More than 500 transplants performed since the program's inception in 1985.
- Devices for stabilization, bridge to transplant or destination therapy available, including HeartMate II - only device approved for both bridge-to-transplant and long-term "destination" therapy - and CardioWest™ Total Artificial Heart.
- More VADs implanted than donor hearts in 2009.
- Celebrating 25 years of heart transplantation.



Ventricular assist device destination therapy program certified with a Gold Seal of Approval™.

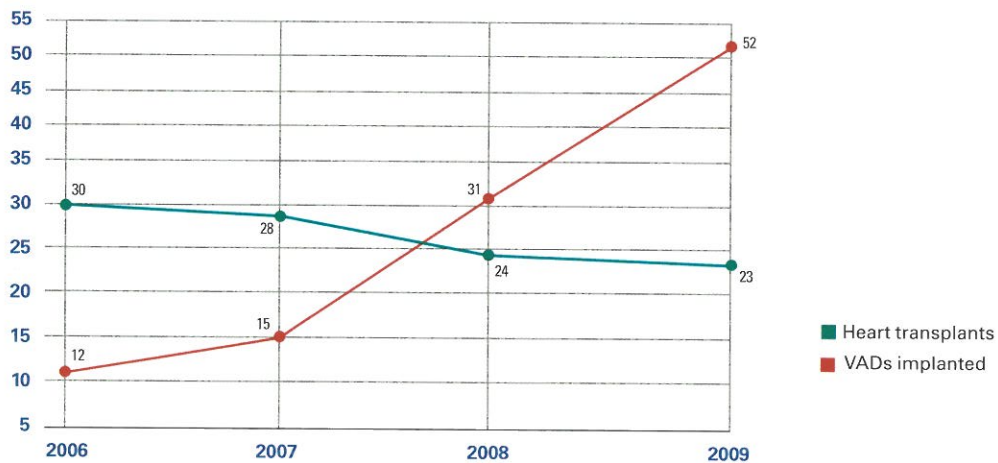
Heart Transplant Outcomes National Average for Transplant Centers Versus Barnes-Jewish Hospital

Number of Transplants	Barnes-Jewish
Number of Heart Transplants performed in 2009	23

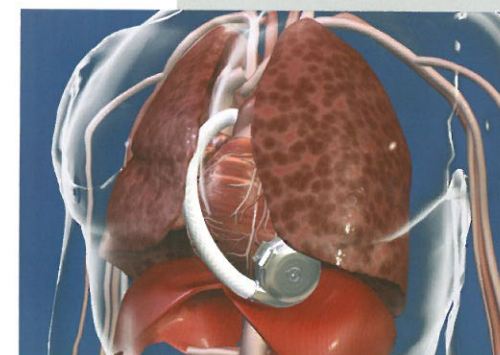
Patient Survival	National	Barnes-Jewish
1 month - Proportion of heart transplant patients surviving at 1 month post-op	95.5%	97.1%
1 year - Proportion of heart transplant patients surviving at 1 year post-op	88.5%	89.7%
3 year - Proportion of heart transplant patients surviving at 3 years post-op	80.7%	82.5%

Graft Survival	National	Barnes-Jewish
1 month - Proportion of heart transplant grafts surviving at 1 month post-op	95.1%	97.1%
1 year - Proportion of heart transplant grafts surviving at 1 year post-op	87.9%	89.7%
3 year - Proportion of heart transplant grafts surviving at 3 year post-op	79.9%	81.0%

Heart Transplants vs VADs Implanted



Ventricular assist device



Ventricular assist device

Lung Transplant



Transplant pulmonology

Elbert P. Trulock III, MD, *Professor, Medicine, Medical Director*
Derek E. Byers, MD, PhD, *Assistant Professor, Medicine*
Ramsey Hachem, MD, *Associate Professor, Medicine*
Howard J. Huang, MD, *Instructor, Medicine*
Roger D. Yusen, MD, MPH, *Associate Professor, Medicine*

Lung transplant surgery

G. Alexander Patterson, MD, *Professor, Surgery, Surgical Director*
Daniel Kreisel, MD, PhD, *Assistant Professor, Surgery*
Alexander S. Krupnick, MD, *Assistant Professor, Surgery*
Bryan F. Meyers, MD, MPH, *Professor, Surgery*
Michael K. Pasque, MD, *Professor, Surgery*
Varun Puri, MD, *Assistant Professor, Surgery*

New physicians on staff

Derek E. Byers, MD, PhD, - **Transplant pulmonologist**



Dr. Byers specializes in the care of lung transplant recipients. He is a graduate of the University of Texas Southwestern Medical Center in Dallas, where he earned both his medical degree and PhD in immunology and completed his residency and chief residency in internal medicine. He completed his fellowship in pulmonary and critical

care at Washington University School of Medicine, and has focused his clinical interests in the care of patients following lung transplantation and research interests in the pathways that lead to chronic inflammatory airway disease in the laboratory of Dr. Michael Holtzman.

Howard J. Huang, MD, - **Transplant pulmonologist**



Dr. Huang specializes in the care of lung transplant recipients. He is a graduate of the UT Southwestern Medical School in Dallas, and completed his residency at UT Southwestern Medical Center. He completed his fellowship in pulmonary and critical care medicine at Washington University School of Medicine. Dr. Huang's research focuses on the genetic and immunologic mechanisms regulating

acute lung injury and lung allograft rejection following transplantation.

Photopheresis experience published

The Barnes-Jewish and Washington University lung transplant program's experience with the use of extracorporeal photopheresis after lung transplantation is among the longest in the world. Team physicians published "The Efficacy of Photopheresis for Bronchiolitis Obliterans Syndrome After Lung Transplantation" in *The Journal of Heart and Lung Transplantation*, October 2009.

Lung Transplant Milestone

In 1988, Barnes-Jewish became one of the first hospitals in the US to establish a dedicated lung transplant program. Now with well over 1,000 transplants, the program will reach a milestone that speaks to leadership and quality of post-transplant medical management. The program maintains extensive experience in all lung diseases, including cystic fibrosis, pulmonary fibrosis, pulmonary hypertension and even less common diseases such as sarcoidosis and lymphangioleiomyomatosis.

Patients are scheduled to begin reaching the 20-year post-transplant survival mark in the autumn of 2010.

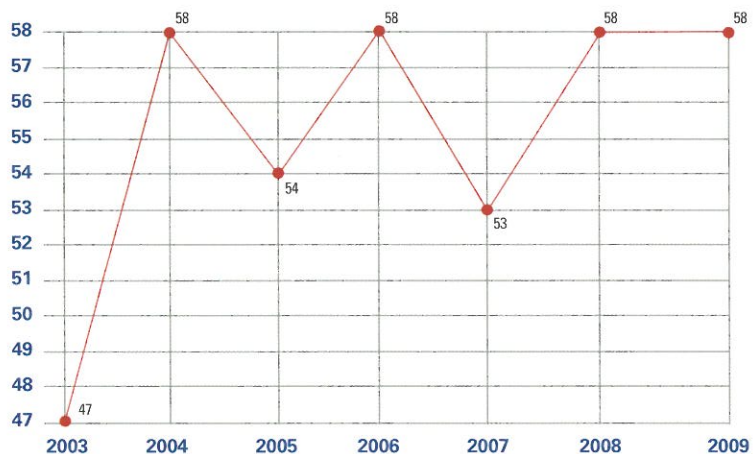
Lung Transplant Outcomes National Average for Transplant Centers Versus Barnes-Jewish Hospital

Number of Transplants	Barnes-Jewish
Number of Lung Transplants performed in 2009	58

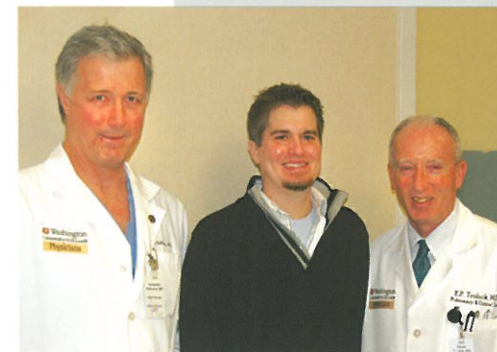
Patient Survival	National	Barnes-Jewish
1 month - Proportion of lung transplant patients surviving at 1 month post-op	95.8%	97.8%
1 year - Proportion of lung transplant patients surviving at 1 year post-op	83.6%	86.5%
3 year - Proportion of lung transplant patients surviving at 3 years post-op	66.6%	73.3%

Graft Survival	National	Barnes-Jewish
1 month - Proportion of lung transplant grafts surviving at 1 month post-op overall	95.1%	97.2%
1 year - Proportion of lung transplant grafts surviving at 1 year post-op overall	81.7%	83.3%
3 year - Proportion of lung transplant grafts surviving at 3 year post-op overall	64.2%	70.3%

Number of Lung Transplants at Barnes-Jewish Hospital in a Given Year



Consistently ranked as one of the top five transplant programs in the nation for lung transplant volume.



Kidney-pancreas Transplant



Kidney-pancreas transplant renewed focus

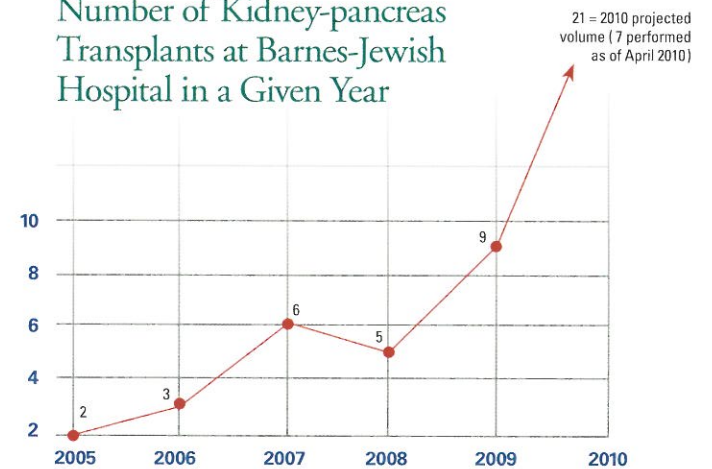
Barnes-Jewish and Washington University's renewed focus on combined kidney-pancreas transplants for patients with type 1 diabetes and renal failure resulted in an 80 percent increase in transplants last year.

Advantages to kidney-pancreas transplant

Combined kidney-pancreas transplant, or pancreas-after-kidney transplant, can be a lifesaving option for patients with type 1 diabetes and renal failure.

- Five year survival for type 1 diabetic with renal failure
- Without transplant: 30-40%
- With kidney-pancreas transplant: 85%

Number of Kidney-pancreas Transplants at Barnes-Jewish Hospital in a Given Year



KIDNEY-PANCREAS

New surgical director

Jason R. Wellen, MD



Dr. Wellen is the surgical director of the Barnes-Jewish and Washington University kidney and pancreas transplant programs. Before joining the staff and faculty, Dr. Wellen completed his fellowship in abdominal transplant surgery at Barnes-Jewish and Washington University. He is a graduate of St. George University School of Medicine and completed his residency at St. Barnabas Medical Center.

“Our kidney and pancreas programs have excellent results due to the multidisciplinary team approach that we take to manage each and every patient. Our kidney program is one of the largest in the nation having performed 199 kidney transplants in 2009. But more importantly, our graft survivals remain one of the best in the nation.”

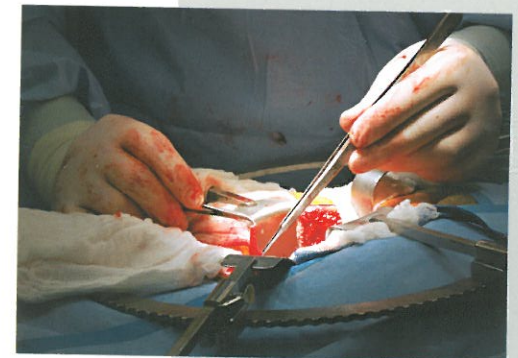
—Jason Wellen, MD

New medical director

Christina L. Martinez Klein, MD



Dr. Klein specializes in the care of kidney and pancreas transplant recipients. She is a graduate of the University of California-Los Angeles Medical School and completed her residency at the University of California-San Francisco. She completed a nephrology fellowship at the University of Colorado-Denver and a fellowship in medical transplant at the University of Wisconsin-Madison.



Contact Us

The transplant team at the Washington University and Barnes-Jewish Hospital Transplant Center consists of more than 40 doctors and surgeons who perform 300 solid organ transplant a year on average, making us one of the largest transplant centers in the nation.

Ranked on the *U.S. News & World Report* Honor Roll for digestive disorders, kidney disorders, heart and heart surgery, respiratory disorders, and diabetes and endocrine disorders, our transplant team sees some of the toughest cases yet achieves some of the greatest outcomes.

To refer a patient to Barnes-Jewish Hospital, call the Doctor's Access line at 1-800-252-DOCS. Patients can call directly at 1-866-TOP-DOCS.



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WUphysicians.wustl.edu



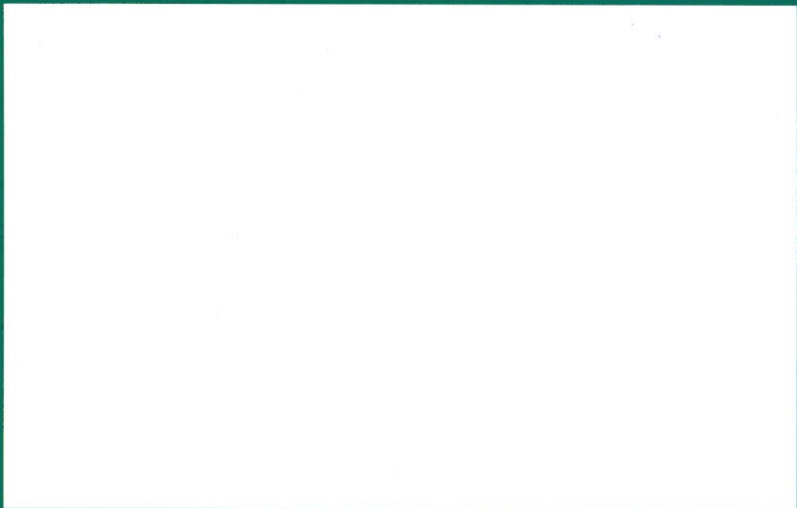
It is our privilege and honor to serve as your partners in the care we provide to patients from the heart of the Midwest and around the world. We thank you for your support and will continue to keep you informed of developments in our program.



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This report contains recent highlights of the unprecedented progress, growth and innovation at the Washington University and Barnes-Jewish Hospital Transplant Center.