


*Mendez*  
**NATIONAL INSTITUTE  
of TRANSPLANTATION**  
at the S. Mark Taper Foundation Transplant Center

## **KIDNEY/PANCREAS TRANSPLANTATION**

*An Option for Diabetic Patients  
with Advanced Kidney Disease*





This booklet is an introduction  
to transplantation for  
insulin–dependent diabetic  
persons with advanced  
kidney disease.

If you have been told that your kidneys are failing, or you are already on dialysis, you will find it helpful to read these few pages and then discuss any questions you have with your nephrologist (kidney doctor) or with a doctor, nurse, or other member of a transplant team. This booklet is to accompany the booklet titled, *Transplantation: An Option for Advanced Kidney Disease*, which provides detailed information about kidney transplantation and the transplant process.



## *The Functions of the Pancreas*

A healthy pancreas produces insulin and enzymes required for the digestion of food. Insulin is a hormone that is produced by millions of cells (Islet cells) within the pancreas. Insulin works by regulating the blood sugars in the body.

A person who is insulin-dependent is unable to make insulin. Therefore, daily and strict management of blood sugar levels is essential. Over-treatment with insulin can lead to seizures, coma and/or death. Under-treatment may eventually lead to blindness, heart attacks, stroke, toe or leg amputations, kidney failure and/or death. Under-treatment of diabetes is most common.

Over one-third of insulin-dependent diabetics develop end-stage renal disease (kidney failure). It is for this select group of patients that a combined kidney/pancreas transplant may be recommended.

## *The Transplant Operation and Process*

In order to be considered a candidate for a combined kidney/pancreas transplant, you must be evaluated by a transplant team and determined suitable for transplantation. If you are determined to be a candidate, you will be placed on the national waiting list. The waiting time for an organ depends upon your blood type.

When you receive the call from the transplant team that a kidney and pancreas may be available, you will need to go to the hospital immediately. Upon arrival, you may need urgent dialysis and other medical evaluations. Once you have been approved by the surgeon to proceed, you will then undergo the operation.

The transplant operation takes about five hours. A midline incision allows placement of both organs, with the pancreas usually on the right side and the kidney on the left side of the pelvis. Your old kidneys and pancreas will not be removed. As the new pancreas continues to make digestive enzymes, it will have to be drained. This is usually accomplished by connecting the new pancreas to your small bowel.

Immediately following your transplant surgery, you will receive immunosuppressive medications (anti-rejection medication) which you will have to take for as long as your “new” organs are functioning. The purpose of the medicine is to prevent your body from attacking or rejecting the new organs.

After the operation, you will spend a few days in intensive care and then be transferred to another part of the hospital where your family can visit. Most patients are discharged between five to seven days after the transplant, but of course there are exceptions. Before you are discharged from the hospital, you will be trained on how to care for your new organs.

### *To Be Considered for Transplantation, You Must Be:*

- An insulin-dependent diabetic
- Between the ages of 18–55
- In reasonably good health to undergo major surgery and immunosuppressive therapy
- Emotionally and psychologically stable



## *The Following will Disqualify a Person from Transplantation:*

- Active infection, such as HIV
- History of certain kinds of cancer
- Ongoing substance abuse
- Marked obesity
- Medical conditions that make it dangerous to undergo major surgery

## *Advantages of a Successful Combined Kidney/Pancreas Transplant*

- Not considered to have diabetes
- Dialysis is unnecessary as long as the kidney is functioning
- The recipient may lead a normal life of work or school, social activities and exercise
- The recipient does not have to follow a strict diabetic and/or renal diet, but usually must follow a low-salt and low-fat diet
- Energy levels are usually enhanced
- Freedom from monitoring blood sugar levels, as long as the pancreas is functioning
- Freedom from insulin injections and reaction, as long as the pancreas is functioning
- Freedom from limited fluid intake
- May no longer experience anemia
- May experience improved quality of health



## *Other Advantages May Include:*

- Improvements in nerve sensation
- Improvements in blood circulation and wound healing
- Improvements in stomach emptying and constipation
- Improvements in cholesterol levels
- Possible improvements and/or slow-down of visual impairment




## *Special Considerations for Pancreas Transplantation*

A pancreas transplant may also be performed in an insulin-dependent diabetic who has already had a kidney transplant or who has a potential kidney donor. In these circumstances, a suitable pancreas is transplanted after the patient has recovered from the kidney transplant.

In very select situations an insulin-dependent diabetic without kidney failure may qualify for a pancreas transplant without having a kidney transplant. These patients usually have extreme difficulty in managing their sugar levels and in general have a very poor quality of life.

## *Complications That May Arise*

- The recipient's body may reject the donor kidney and/or pancreas.
- Daily medication to combat organ rejection is required for the rest of the recipient's life or as long as the transplanted organs are functioning. These medicines have side effects.

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- The recipient will have an increased susceptibility to infection as a consequence of immunosuppressive medication.
  - Complications from surgery, such as infections, delayed wound healing, and delayed return of bowel function.

As a diabetic, you are already prone to develop infections. However, following a transplant with the new immunosuppressive medications, your risk of contracting a serious infection may increase. For this reason, you will have to take long-term antibiotics to prevent these infections. A few patients may have to return to the operating room for a second surgical procedure and in very rare cases transplanted organs will have to be removed.

Your transplant coordinators and doctors are quite capable of recognizing early signs of rejection and in most of the cases can reverse organ rejection. The success of your transplant operation depends on how well you take care of yourself and follow your doctors' instructions.

### *Final Note*

We hope this booklet has provided you with basic information about combined kidney/pancreas transplantation. For further detailed information about the transplant process, please read *Transplantation: An Option for Advanced Kidney Disease*. If you are interested in pursuing the option of transplantation, consult a transplant team. Your nephrologists or dialysis unit can help you find a transplant center.



For further information about the kidney transplant process,  
please telephone or write:



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