

TALKING ABOUT TRANSPLANTATION



*Questions and Answers
for Transplant Candidates about*

Pancreas, Pancreas-Kidney, & Islet Allocation

UNITED NETWORK FOR ORGAN SHARING

UNOSSM

United Network for Organ Sharing (UNOS) is a non-profit charitable organization that manages the nation's transplant system—known as the Organ Procurement and Transplantation Network (OPTN)—under contract with the federal government. As the OPTN, UNOS helps create and define organ sharing policies that make the best use of donated organs. This process involves continuously evaluating new advances and discoveries so policies can be adapted to best serve patients waiting for transplants.

All transplant programs and organ procurement organizations throughout the country are OPTN/UNOS members and are obligated to follow the policies the OPTN creates for allocating organs.

What does a pancreas do?

Your pancreas has two main functions: an exocrine function and an endocrine function. The exocrine glands in your pancreas produce enzymes that allow your body to digest food and absorb the nutrients from that food. The endocrine glands in your pancreas secrete insulin, which is the hormone that regulates the level of sugar in your blood. If you have type 1 diabetes, your pancreas cannot create insulin. If you have type 2 diabetes, your pancreas makes insulin, but your body doesn't respond to it correctly.

What are the types of pancreas transplants?

Pancreas-alone: *a transplant where you just receive a pancreas*

Simultaneous pancreas-kidney: *a transplant where you receive a kidney and a pancreas at the same time*

Pancreas after kidney: *a transplant where you receive a pancreas by itself after you have already had a kidney transplant, usually from a living donor*

Islet transplant: *injection of pancreatic islet cells in your liver so that you can begin to produce insulin on your own; not available at all transplant centers*

Why would I need a pancreas transplant?

If you have been diagnosed with diabetes, it means that your pancreas is not working properly. Over time, diabetes can cause problems. You might not be able to tell when your blood sugar is low, which can lead to fainting or seizures. Or, despite the fact that you are following your doctor's recommendations and are taking your medication, exercising, and maintaining a healthy weight, you might still be unable to control your blood sugar levels. When your diabetes becomes this severe, a pancreas transplant could greatly improve your quality of life.

However, receiving a pancreas is a big operation. A transplant would require you to take immunosuppression drugs for the rest of your life. These drugs have serious side effects. For these reasons, even if you have diabetes, a pancreas transplant might not be right for you. However, if your diabetes causes your kidney to fail, you may need a kidney transplant as well. And since you would already be taking immunosuppressive drugs for a transplanted kidney, adding a pancreas would be less of a risk.

Your diabetes might also cause enough medical complications that you would benefit from a pancreas-alone transplant, even if you haven't already received a kidney. Some diabetic patients might also benefit from transplantation of islet cells, the cells within the pancreas that produce insulin. In an islet transplant the whole pancreas is not transplanted. A transplant medical professional injects pancreatic islet cells into your body so that eventually it can produce insulin on its own. It often takes two or more islet transplants to restore enough insulin production to better control your diabetes. Some patients may still need to take insulin after the islet cells transplant, but they will have fewer dangerously low blood sugars.

Once I'm on the waiting list, how do they determine who receives an organ?

When an organ becomes available for transplant, the OPTN computer matching system compares information on that organ with all patients nationwide who may be a match. Blood type and the amount of time someone has spent waiting are the first items considered. The more you match with a particular organ and the longer you have been waiting, the more likely it is that you will receive an offer for an organ from your transplant team. The computer system also considers the geographic distance between the donor organ and the candidate. Candidates listed in the same local area as the donor will be considered first, before offers are extended within the region and finally across the nation.

If you are waiting for a kidney as well as a pancreas, donor and transplant candidate genetic markers (or tissue type) that help predict the long-term success of a transplant are also used to determine the best match for a given candidate. As a candidate, if the genetic markers on your organ are an exact match with the genetic markers on one of the donor organs, you will receive priority on the waiting list.

Also, some people waiting for kidneys have developed immune system responses that make it very hard to find a kidney that their body won't reject. This type of immune sensitivity may occur from having a previous transplant, blood transfusions, or even from pregnancy. Those difficult to match, "highly sensitized," individuals will also get priority if a particular donor organ appears to be a good match.

What do I need to do to get on the waiting list?

The requirements vary depending on the specific organ you need. You'll find minimal requirements and general information below. Keep in mind that you may have to meet other criteria set in place by your transplant center. Your transplant team will evaluate if a transplant is a good option for you.

Pancreas-Alone Transplant

How do I qualify to be listed for a pancreas transplant?

You must have been diagnosed with at least one of the following diseases:

- Diabetes that requires you take insulin along with complications that cannot be well managed with conventional therapy
- Severe pancreatic exocrine insufficiency (this is the inability to properly digest food because of a lack of digestive enzymes)

Once I'm registered, what else do I have to do?

Once you have met the initial medical qualifications, you may remain on the list without having to requalify. You might have to return to the transplant center periodically for a follow-up evaluation.

When do I begin accumulating waiting time?

As soon as you are placed on the list you will begin to accrue waiting time. If for some reason your medical condition changes and you are temporarily unable to receive a transplant, your transplant team might change your status on the waiting list from active to inactive. Whether your status is active or inactive, you will continue to accumulate waiting time, but you will not receive organ offers while you are on the inactive list.

Simultaneous Pancreas-Kidney Transplants

How do I qualify to be listed for a simultaneous pancreas-kidney transplant?

You must have kidney failure, which means you are on dialysis or you meet a medical definition of kidney failure (having a creatinine clearance below 20 ml/minute). You must also have either diabetes or pancreatic exocrine insufficiency.

Once I'm registered, is there anything additional I need to do?

Once you meet these qualifications and are listed, you will remain on the waiting list as long as you do not develop any new or disqualifying features for transplantation.

When do I begin accumulating waiting time?

If you are under 18, you will begin earning waiting time from the first day you are added to the list.

If you are 18 or older, you will begin earning waiting time as soon as you meet these criteria:

- You are registered for a kidney-pancreas transplant
- You meet the criteria to accrue kidney waiting time
- You are on insulin and your C-peptide is less than 2 ng/mL. Or if you are on insulin and your C-peptide is greater than 2 ng/mL, you must have a body mass index (BMI) less than or equal to the maximum BMI allowed by OPTN policy. (Your BMI is an indicator of the amount of fat in your body, which may affect how successful your pancreas transplant will be.)

Go to optn.transplant.hrsa.gov to find OPTN/UNOS policies.

Islet Transplant

How do I qualify to be listed with an active status for islet transplants?

You must either:

- Have diabetes and depend on insulin injections, or
- Have a hemoglobin A1c (HbA1c) value greater than 6.5%

Once I'm registered, what other qualifications do I need to meet?

Once you have met the initial qualifications, you may remain on the list without having to requalify provided that you do not develop any new or disqualifying features for transplantation.

When do I begin accumulating waiting time?

As soon as you are listed, you begin earning waiting time. Since patients typically require two or more islet transplants before they can begin producing enough insulin to either lower or stop the need for insulin injections, you can continue accumulating waiting time up to the third islet transplant you receive. After the third transplant, your waiting time will begin again at zero.

What if I have more questions?

You should contact your transplant team if you have questions or concerns. You can also read the entire pancreas allocation policy on the OPTN website (www.optn.transplant.hrsa.gov) under the policy management tab (select policies).

You can find additional patient-related information on UNOS Transplant Living website at www.transplantliving.org.

*Our mission is to advance organ availability and transplantation
by uniting and supporting its communities for the benefit of patients
through education, technology and policy development.*



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