

RECOMMENDATIONS ON PREVENTING REJECTION

(TO LEARN MORE VISIT: <https://power2save.org/about-organ-transplants/preventing-rejection/>)

The daunting truth about organ failure is that it occurs in about 50 percent of all organ transplants. To help prevent rejection, transplant recipients must take highly-evolved immunosuppressive drugs, also known as anti-rejection drugs, for the rest of their lives to ensure their new organ is accepted by their body.

WHY ORGAN REJECTION OCCURS

A very common misconception about organ rejection is that it's the organ's fault for the rejection; it is just the opposite. The immune system protects the body from foreign invaders such as bacteria, viruses and, unfortunately, a transplant. A transplanted organ is made up of "foreign" cells that aren't like the rest of the body's, and the immune system will try to destroy the new organ.

To help reduce these kinds of attacks, doctors try to closely match the blood and tissue types of the donor organ to the recipient. However, even with a good match, the immune system will still think the transplanted organ is a foreign invader. In order to prevent rejection, the recipient needs to take medications that essentially "slow down" the immune system and its attack on the transplanted organ.

IMMUNE TOLERANCE - THE HOPEFUL FUTURE OF PREVENTING REJECTION

Although cutting-edge anti-rejection drugs have helped the transplant community improve the success of organ transplants, there are still serious drawbacks to taking these medications.

Organ recipients must take these anti-rejection drugs for a lifetime, and this increases their risks of cancer, infections, diabetes, bone disease, heart attacks and strokes. This has made Sir Peter Medawar's idea of engineering immune tolerance after transplantation the ultimate goal for the transplantation field. If successful, doctors can eliminate most or all drugs from the treatment and ease the lives of all transplant recipients.

Supporting this ongoing research will make these exciting new approaches possible. The positive impact of immune tolerance on the health and lives of recipient and their families is nearly incalculable. By simply eliminating drug costs, it would **save the United States over \$1 billion each year**, and yet only a small fraction of that amount fuels funding for this kind of research.