

## **Combating Kidney Disease: What Texans Are Up Against**

In 2022, 2,394 kidney transplants were performed in Texas. At a glance, to have a high number of transplants appears beneficial, but wouldn't it be better if Texans didn't need new kidneys in the first place?

Out of all the great states, Texas has the largest percentage of patients with kidney disease on dialysis. Many of us are fortunate enough not to know the tremendous burden of chronic kidney disease. We must do what we can to educate the public to prevent kidney disease and support those who are suffering.

### **What Is Kidney Disease?**

Our kidney's job is to filter our blood and remove the waste and extra fluids from our body. They also balance our blood chemistry and play a role in producing red blood cells. When these "filters" are damaged over a long span of time, it is diagnosed as Chronic Kidney Disease (CKD). When the kidneys don't filter, fluids and toxins build up in the body and electrolytes and minerals become imbalanced. The amount of work the kidneys can still accomplish is measured and organized into Stages I-V. Once the kidneys are completely incapable of performing their functions, it is classified as End Stage Renal Disease (ESRD). At this point, the body will rely on dialysis or a kidney transplant to survive.

### **Early Detection for Early Interventions**

When the kidneys are in the beginning stages of CKD, they are symptomless. Kidney disease can fly under the radar, growing in severity, if routine testing isn't performed. We are learning that early detection of CKD is key in creating positive outcomes for patients. Resources are needed to educate the public on protecting ourselves and what makes specific individuals at risk for kidney disease. In Texas, medical professionals are not required to test for CKD when people come in for their yearly examinations. Even when some people are tested and found to have early stages of CKD, the patient may not always have the results communicated to them. The sooner a medical professional can identify and communicate that an individual's kidneys are showing signs of damage, the sooner treatments and lifestyle changes may be applied to preserve the health of the kidneys.

### **Who Is At the Greatest Risk**

African American and Hispanic ethnicities are the most affected by kidney disease in the United States. They also have a greater risk for diabetes and high blood pressure, which are leading causes of CKD. To prevent CKD we must also put a stop to:

- Diabetes
- Obesity
- High Blood Pressure
- Heart Disease



**Out of every 3 adult Texans that have diabetes, 1 is at risk for kidney disease.**



**Out of every 5 adult Texans that have high blood pressure, 1 is at risk for kidney disease.**

Unfortunately, the statistics show less than 10% of people with high blood pressure and less than 40% of people with diabetes receive testing for kidney disease. The limited availability of healthcare is another factor that prevents people from getting tested or taking care of their already difficult diagnoses. Expanding resources like telemedicine to those at risk and affected by CKD should be encouraged to dismantle this deadly barrier.

## **Transplants**

As of March 5th, 2023, there are 8,269 candidates in Texas waiting for a kidney transplant. We must continue to work to prevent ESRD because not everyone who needs a kidney will be designated as a candidate. The patient is not a candidate for a kidney transplant if they are diagnosed with the following:

- Advanced cardiopulmonary disease
- Active malignancy
- Active malignancy (except for skin cancer)
- Severe local or systemic infection
- Severe neurologic deficits
- Active substance addiction/abuse
- Major psychiatric illness or active substance abuse that cannot be managed sufficiently to allow post-transplant care and safety

There are other factors like peripheral vascular disease, morbid obesity, and bloodborne illnesses that may decrease the chance of someone becoming a transplant candidate. Whether that patient is ruled a candidate or not a candidate is based on the assessment of the deciding transplant team.

## **Put It On Our Tab**

The costs for treating CKD patients are high and the complications that can arise demand even more money. Catching kidney disease in the early stages not only is beneficial for the health of the patient but demands a much lower cost than the more progressed stages. In 2019, the cost of treatments for patients with ESRD or kidney failure was \$86,400 per person, and the cost for patients with CKD stages I-IV was \$24,453 per person.

## **Keeping Our Eyes on The Horizon**

### **Minuteful Kidney**

As mentioned above, our country is struggling to detect the early stages of kidney disease which causes a negative impact on our fight against kidney disease. The Minuteful Kidney at-home testing kit is a smartphone-compatible software that allows people to test their kidney function and get immediate results. This novel tool makes it easy to detect kidney disease in the early stages, thus resolving the grave issue of people only finding out they have kidney disease when it's too late. It is pertinent to support our communities by making this life-changing instrument available and well-known.

### **SGLT2 Inhibitors**

If only there was a pill that could instantly cure kidney disease, right? A relatively new medication in the United States is now available to decrease mortality in patients with kidney disease. The SGLT2 inhibitor, a medication originally prescribed for the treatment of diabetes, has now been approved for patients with kidney disease. It works by slowing the progression of kidney disease, reducing the need for dialysis, and preserving kidney function. The medication isn't a cure, but a great discovery to help patients with CKD. Research is still being done to identify if there are benefits from SGLT2 inhibitors if prescribed to transplant recipients or patients with ESRD.

## **Staying Optimistic**

Texas ranks fourth in the U.S. for having the highest population of kidney disease and 10% of the ESRD population in the United States comes from Texas. With the help of technology, educational resources, and teamwork, these numbers don't stand a chance for 2023.

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## Sources

Chronic kidney disease basics. Centers for Disease Control and Prevention. <https://www.cdc.gov/kidneydisease/basics.html>. Published February 28, 2022. Accessed March 5, 2023.

Chronic kidney disease (CKD) - NIDDK. National Institute of Diabetes and Digestive and Kidney Diseases. <https://www.niddk.nih.gov/health-information/kidney-disease/chronic-kidney-disease-ckd>. Published June 2017. Accessed March 5, 2023.

Improving Kidney Testing Rates in Texas. <https://blog.healthy.io/wp-content/uploads/2022/10/TKF-Healthy.io-Case-Study.pdf>. Accessed March 5, 2023.

State data - OPTN. Organ Procurement and Transplantation Network. <https://optn.transplant.hrsa.gov/data/view-data-reports/state-data/#>. Published March 2023. Accessed March 5, 2023.

State Plan for Chronic Kidney Disease Treatment. <https://www.hhs.texas.gov/sites/default/files/documents/state-plan-ckd-treatment-jan-2023.pdf>. Published January 2023. Accessed March 5, 2023.

Transplant waiting list. American Kidney Fund. <https://www.kidneyfund.org/kidney-donation-and-transplant/transplant-waiting-list>. Published June 15, 2022. Accessed March 5, 2023.

UNOS data and transplant statistics: Organ Donation Data. UNOS. <https://unos.org/data/>. Published March 6, 2023. Accessed March 5, 2023.

Yau K, Dharia A, Alrowiyti I, Cherney DZI. Prescribing SGLT2 Inhibitors in Patients With CKD: Expanding Indications and Practical Considerations. *Kidney Int Rep*. 2022;7(7):1463-1476. Published 2022 May 5. doi:10.1016/j.ekir.2022.04.094

Zidwick V. Kidney and pancreas patient selection criteria: Johns Hopkins Comprehensive Transplant Center. Kidney and Pancreas Patient Selection Criteria | Johns Hopkins Comprehensive Transplant Center. <https://www.hopkinsmedicine.org/transplant/referring-physicians/kidney-pancreas-transplant-criteria.html>. Published February 18, 2021. Accessed March 5, 2023.

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