

HIV & KIDNEY DISEASE

What Role Does HIV Play in Kidney Disease?

More than 1.2 million people are living with HIV in the United States. Many are at risk for complications stemming from the infection, including but not limited to chronic kidney disease.

This resource is intended to bring awareness and help educate patients on what kidney disease is, causes, risks, symptoms and next steps.

01 | What is kidney disease?

Normal kidney function allows waste to be filtered from the blood, helps control blood pressure and hormone levels. Chronic kidney disease, also called chronic kidney failure, is a gradual loss of kidney function. Kidney function is measured by the glomerular filtrating rate (GFR) which is the best indicator of how well the kidneys are working. There are five stages of kidney disease that measure the severity and disease progression including:

- **Stage 1**- Kidney damage with normal GFR (90 or above).
- **Stage 2** - Kidney damage with mild decrease in GFR (60 to 89).
- **Stage 3** - Moderate decrease in GFR (30 to 59).
- **Stage 4** - Severe reduction in GFR (15 to 29).
- **Stage 5** - Kidney failure (GFR less than 15).

02 | Causes

There are several reasons that may lead to kidney disease in HIV patients including:

- HIV disease can cause kidney failure due to HIV infection of kidney cells, also known as HIV-Associated Nephropathy or HIVAN.
- Several HIV medications are hard on the kidneys. This includes antiretroviral medications and some medications used to treat HIV-related health problems.

03 | Risks

Patients with HIV are more likely to develop kidney disease if they:

- Are African American
- Have diabetes
- Have high blood pressure

- Are older
- Have a lower CD4 count (below 200 cells/mm3)
- Have a higher viral load
- Have Hepatitis B or Hepatitis C

04 | Symptoms

Common kidney disease symptoms include:

- Changes in urination
- Swelling of the feet, ankles, hands, or face
- Fatigue or weakness
- Shortness of breath
- Ammonia breath or metal taste in the mouth
- Back or flank pain
- Itching
- Loss of appetite
- Nausea and vomiting
- More hypoglycemic episodes, if diabetic

However, some patients with early kidney disease have no symptoms and may suffer serious damage before experiencing any problems. Therefore it is critical that patients with HIV have their kidney function tested on a regular basis.

Your medical provider can help you to determine ways to decrease your risk and establish a roadmap for care and testing. For additional resources regarding HIV and kidney disease visit <https://www.aids.gov>.

Did You Know?

30% of People Living with HIV Have Abnormal Kidney Function

References

<https://www.aids.gov/hiv-aids-basics/staying-healthy-with-hiv-aids/potential-related-health-problems/kidney-disease/>

<http://www.mayoclinic.org/diseases-conditions/kidney-disease/basics/definition/con-20026778>