## Kidney Disease Patients & Substance Use Disorders (SUD): Are You at Risk?



The term "substance use" refers to the use of alcohol and drugs. This includes substances such as illegal drugs, prescription drugs, cigarettes, and more. A substance use problem occurs when the person's use of that substance causes harm to themselves or others. Substance Use Disorder (SUD), also called "addiction," is the persistent useof alcohol or drugs. As many as 19% of hemodialysis patients have been diagnosed with SUD.

### "Could I be struggling with this disease?"

The following 11 questions refer to typical behaviors of people who have SUD. Ask yourself if any sound familiar.

- 1. Do you have cravings and urges to use the substance?
- 2. Do you spend a lot of time getting, using, or recovering from use of the substance?
- 3. Do you find yourself taking the substance in larger amounts or for longer periods than before?
- 4. Do you want to cut down or stop using the substance but find that you cannot manage to do so?
- Do you find that you are not managing to do what you should at work, home, or school because of substance use?
- 6. Do you continue to use, even when it causes problems in relationships?

- Have you given up important social, occupational, or recreational activities because of substance use?
- Do you continue to use substance repeatedly, even if it puts you in danger?
- 9. Do you continue to use, even when you know you have a physical or psychological problem that could have been caused by or made worse by the substance?
- 10. Do you find yourself developing a tolerance (needing more of the substance to get the effect that you want)?
- 11. Have you experienced withdrawal symptoms, which you relieved by taking more of the substance?

# How Substance Use Can Affect Your Kidneys

#### Tobacco Use

The use of nicotine increases blood pressure, which can speed up damage to the kidneys. Nicotine can also advance kidney disease and increase the risk of

kidney failure with individuals who have other medical conditions such as type 1 diabetes. Possible complications:

- Increased levels of albumin in urine
- (associated with cardiovascular disease)
- Narrowing of the renal arteries
- Disruption of the balance of electrolytes in the system
- Inflammation of kidneys

#### **Alcohol Use**

Alcohol use affects the liver and how the liver works with your kidneys. Damage to the liver causes damage to kidney

functioning. Chronic heavy use of alcohol can significantly alter the structure and function of the kidneys.

Possible complications:

- Kidney swelling
- Alteration of cells, leading to impaired kidney function
- Electrolyte disturbances
- Depletion of minerals need by the body
- Altered acidity levels of the fluids in the system, which can result in alcoholic ketoacidosis (significantly dangerous high blood acidity level, that can produce alkalosis)



#### **Cocaine Use**

Cocaine use can lead to rhabdomyolysis, a breakdown of muscle tissue that releases a damaging protein into the blood that can result in kidney failure. Cocaine can also lead to renal infarction (blockage of the blood supply to the kidney) as well as cardiovascular issues like atherosclerosis in the walls of the renal arteries (buildup of plaque).

#### Ecstasy Use

Ecstasy has the ability to increase body temperature, which can lead to dehydration. This could result in rhabdomyolysis and acute renal failure. This drug can exacerbate hypertension and cause additional damage to the kidneys.

#### **Inhalant Use**

The toxic chemical known as toluene (a component of many solvents and glues that are used as inhalants), can lead to direct kidney damage when ingested. This damage will occur as the result of lesions to the kidney.

#### **Opiate Use**

Opiate users who inject drugs are at a high risk of sharing needles and may contract HIVassociated nephropathy. This condition can result in end stage renal disease and death.

• Fluid accumulation in the system



Talk to your kidney care team about obtaining resources for yourself or someone you know who is struggling with substance use disorders.

Visit these links with more information and resources for overcoming addiction: https://www.samhsa.gov/find-help/national-helpline https://opioidresponsenetwork.org/?gclid=EAIaIQobChMIxsjr8PTc6wIVBTiGCh39MQ5GEAMYASAAEgKvx\_D\_BwE



This material was created by IPRO and adapted by Quality Insights Renal Network 3, an End Stage Renal Disease (ESRD) Network under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services (HHS). Views expressed in this material do not necessarily reflect the official views or policy of CMS or HHS, and any reference to a specific product or entity herein does not constitute endorsement of that product or entity by CMS or HHS. Publication No. ESRD3-071723KS