



# Take care of your HEART and be kind to your KIDNEYS

## Why your interventional cardiologist has your kidneys in mind

When you have a cardiac procedure, you're naturally focused on how your heart is doing. **But your doctor is also thinking about the health of another organ: your kidneys.** That's because for some patients, interventional cardiology procedures can pose a health risk to the kidneys.



be kind to  
**KIDNEYS**

## What your kidneys do

Located on either side of your spine at the lowest level of the rib cage, your two kidneys perform the critical task of filtering fluid and eliminating waste as urine. The kidneys also perform other important functions—helping control blood pressure, making red blood cells, and keeping bones healthy.

## About Chronic Kidney Disease

Chronic Kidney Disease (CKD) refers to a variety of conditions that damage your kidneys over time. This is a serious problem because the kidneys are so critical to your health. As the kidneys deteriorate, you feel sick because waste is building up in your blood. You may develop high blood pressure, anemia, weak bones, and poor nutritional health.<sup>1</sup> Advanced kidney disease can lead to kidney failure, requiring dialysis or a kidney transplant.

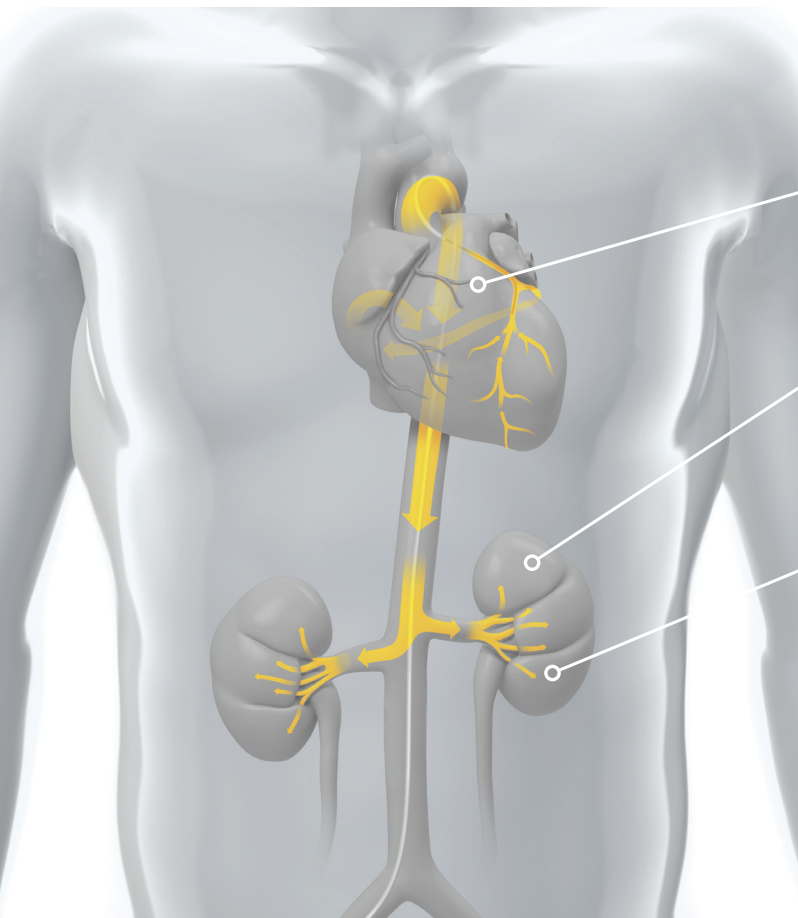
## The heart-kidney connection

The heart and kidneys work closely together, and affect each other more than you might realize. The heart pumps blood filled with oxygen through all parts of your body. The kidneys clean the blood and remove waste products. It is important to know that having kidney disease can directly affect your chances of developing heart disease. Having heart disease can directly affect your chances of developing kidney disease.<sup>1</sup>

## Know your kidney numbers

Kidney numbers include two blood tests: Serum Creatinine (SCr) and Glomerular Filtration Rate (GFR). Both of these numbers measure kidney function and how well they are doing their job.

Talk to your health care provider about your kidney numbers and what they mean to you.



The heart is a hard-working pump that pushes blood throughout your body.

Hydration and reduction of contrast dye should be initiated to protect kidneys during heart procedures.

Kidneys filter fluid and toxins from your body and eliminate them as waste through urine.

### Who is at risk?

Along with kidney problems you are at increased risk for Acute Kidney Injury if you have:

- Diabetes
- Hypertension
- Heart disease
- Older age

Acute Kidney Injury can lead to health problems like:

- Irreversible damage to kidneys
- Longer hospitalizations
- Long-term dialysis
- Higher risk of death

## Kidney kindness in the cath lab

For patients with kidney disease, the contrast dye used for visualization during interventional cardiology procedures can be hard on the kidneys—even causing a serious complication known as Acute Kidney Injury (AKI). To protect CKD patients' kidneys, and minimize the risk of AKI, professional medical societies recommend a 3-step approach:<sup>2</sup>

- 1. SCREEN FOR CKD.** You may have CKD and not know it.
- 2. HYDRATE.** This may help protect your kidneys during your cath lab procedure.
- 3. REDUCE CONTRAST DYE.** Reducing the amount of dye delivered to the patient may reduce the risk of AKI.<sup>2</sup>

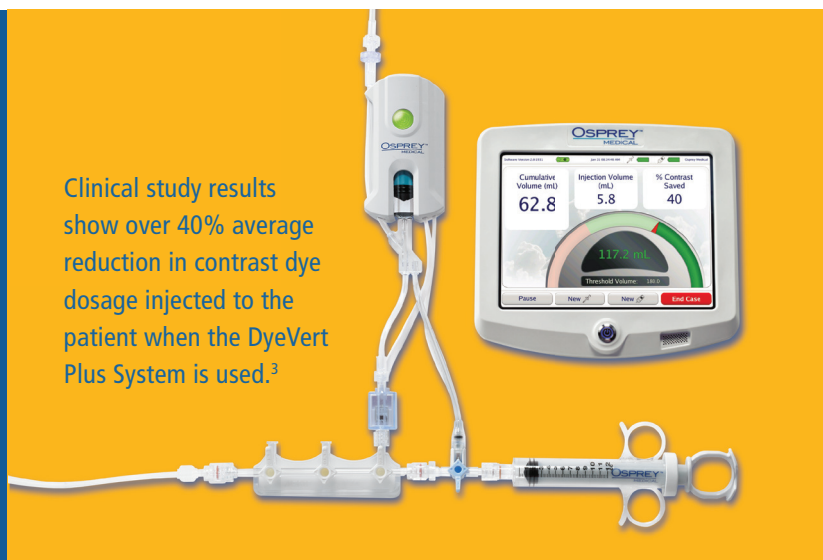
If you have or are at risk for kidney disease, your doctor may take special steps to protect your kidneys when you are having an interventional cardiac procedure.



### The DyeVert™ Plus System: Reducing dye to be kind to your kidneys

Your cath lab doctor may use a special medical device called the DyeVert™ Plus Contrast Reduction System. It is designed to lower the amount of contrast dye your kidneys are exposed to during your procedure. Because the amount of contrast dye is precisely controlled, your doctor can see all structures clearly, even with less contrast dye.

To learn more about CKD and the heart-kidney connection, visit [www.ospreymed.com/patients](http://www.ospreymed.com/patients)



Clinical study results show over 40% average reduction in contrast dye dosage injected to the patient when the DyeVert Plus System is used.<sup>3</sup>

1. National Kidney Foundation. [www.kidney.org](http://www.kidney.org)

2. Levine GN, et al. *Circulation*. 2011; 124:e574-e651

3. Desch S, et al. Impact of a novel contrast reduction system on contrast savings in coronary angiography – The DyeVert randomised controlled tri, *Int J Cardiol* (2018), <https://doi.org/10.1016/j.ijcard.2017.12.107>

Indications, contraindications, warnings, and instructions for use can be found in the product labeling supplied with each device. Risks may include air emboli and infection.

CAUTION: Federal (USA) law restricts these devices to sale by or on the order of a physician.

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