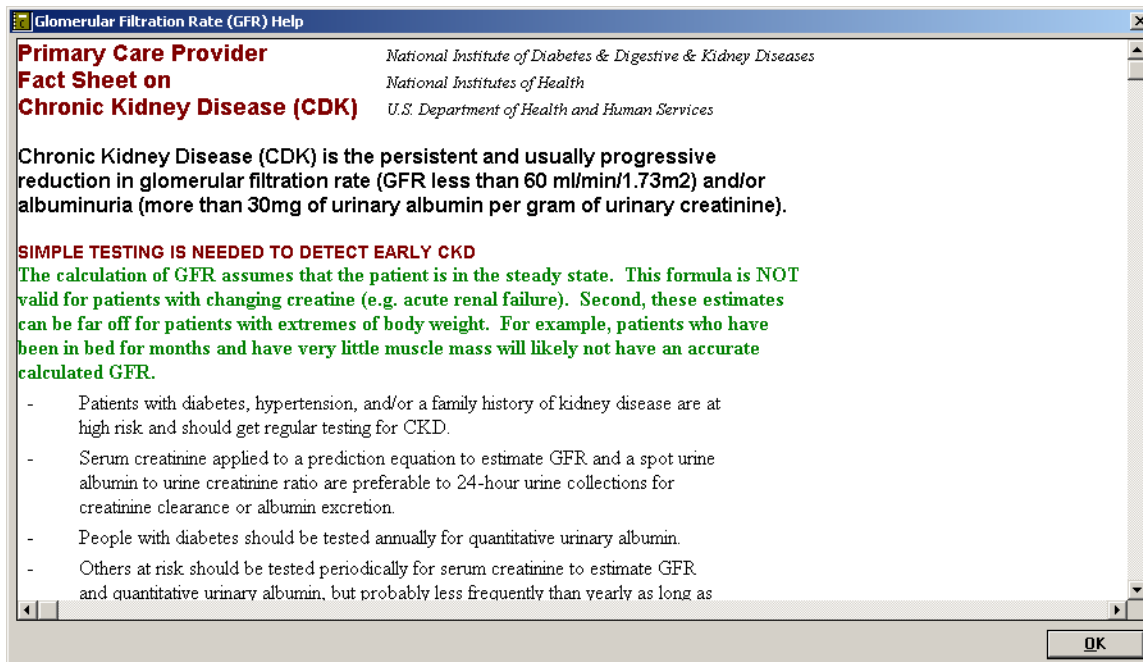


## Glomerular Filtration Rate (GFR)

The Glomerular Filtration Rate is calculated whenever a serum creatinine value is available. The screenshot below shows the GFR help window that appears when the GFR Info/Help button (on the INFORMM Patient Record) is selected. The full text of the help screen is displayed below the screenshot. The remainder of the information is copied directly from the National Kidney Disease Education program's "Primary Care Provider Fact Sheet". Additional information is available at the following website: [www.nkdep.nih.gov](http://www.nkdep.nih.gov)



### **Primary Care Provider Fact Sheet on Chronic Kidney Disease**

*National Institute of Diabetes & Digestive & Kidney Diseases  
National Institutes of Health  
U.S. Department of Health and Human Services*

**Chronic Kidney Disease is the persistent and usually progressive reduction in glomerular filtration rate (GFR less than 60 ml/min/1.73m<sup>2</sup>) and/or albuminuria (more than 30mg of urinary albumin per gram of urinary creatinine).**

### **SIMPLE TESTING IS NEEDED TO DETECT EARLY CKD**

**The calculation of GFR assumes that the patient is in the steady state. This formula is NOT valid for patients with changing creatinine (e.g. acute renal failure). Second, these estimates can be far off for patients with extremes of body weight. For example, patients who have been in bed for months and have very little muscle mass will likely not have an accurate calculated GFR.**

- Patients with diabetes, hypertension, and/or a family history of kidney disease are at high risk and should get regular testing for CKD.
- Serum creatinine applied to a prediction equation to estimate GFR and a spot urine albumin to urine creatinine ratio are preferable to 24-hour urine collections for creatinine clearance or albumin excretion.
- People with diabetes should be tested annually for quantitative urinary albumin.
- Others at risk should be tested periodically for serum creatinine to estimate GFR and quantitative urinary albumin, but probably less frequently than yearly as long as the tests remain normal.

### **PREVENTION IS POSSIBLE AND EARLY TREATMENT CAN SLOW PROGRESSION AND REDUCE CARDIOVASCULAR RISK**

- People with family histories are especially encouraged to take action to prevent hypertension and diabetes. Lose weight if overweight, reduce salt intake, increase fruit, vegetable, low fat dairy and decrease saturated fat and alcohol consumption, exercise 30 minutes a day most days of the week.
- People with diabetes or hypertension and CKD should be treated with an angiotensin converting enzyme inhibitor or angiotensin receptor blocker.
- Target blood pressure should be less than 130/85 mmHg, but with a urinary albumin to creatinine ratio greater than 500 milligrams of albumin per gram of creatinine, even lower pressures may be beneficial.
- Careful glycemic control for those with diabetes and dietary counseling for all with CKD are needed.
- Other traditional cardiovascular risk factors, particularly smoking and hypercholesterolemia, should be sought and treated in people with CKD.
- Consultation with a nephrologist should be obtained, although much of the ongoing care can be given by primary care providers.

### **CKD IS A LARGE AND GROWING PROBLEM**

- Ten to 20 million people in the US have CKD.
- More than 100,000 people are now developing chronic kidney failure annually in the U.S. and this number has doubled each decade since 1980.
- Diabetes and hypertension together account for about 75% of all new cases of chronic kidney failure, with African Americans and Native Americans being at especially high risk.
- More people in the U.S. develop chronic kidney failure than die of any single cancer except lung cancer.
- Premature cardiovascular death is an even more common outcome of CKD than chronic kidney failure.

### **National Kidney Disease Education Program**

*The National Kidney Disease Education Program is a Federal initiative of the National Institutes of Health*

3 Kidney Information Way

Bethesda, Maryland 20892

[www.nkdep.nih.gov](http://www.nkdep.nih.gov)

1-866-4-Kidney (1-866-454-3639)

**You Have The Power To Prevent Kidney Disease**