

# Pediatric Chronic Kidney Disease Fact Sheet

## Chronic Kidney Disease: What Is It?

There are many types of kidney disease. Chronic kidney disease (CKD) in children may occur as a result of congenital malformation or systemic disease. It is characterized by a slow, irreversible, and often silent deterioration of kidney function. CKD is often undiagnosed until the signs and symptoms related to the loss of kidney function materialize. This disease can affect every aspect of the child's life as the kidney failure progresses over a period of months or years. Affected children will need dialysis and/or kidney transplantation as their kidney failure progresses to end stage.

However, the focus should be on wellness as opposed to illness. This means the child is viewed as having a chronic illness, not as being chronically ill or disabled (see Table 1).

**Table 1.**  
**Stages of Chronic Kidney Disease**

Stage	Description	GFR (ml/min/1.73m <sup>2</sup> )
1	Kidney damage with normal or ↑ GFR	≥ 90
2	Kidney damage with mild ↓ GFR	60-89
3	Moderate ↓ GFR	30-59
4	Severe ↓ GFR	15-29
5	Kidney Failure	<15 (or dialysis)

Source: KDIGO, 2013.

## Signs And Symptoms: What To Look For

- Decreased energy, difficulty concentrating, change in school performance.
- Nausea, vomiting, loss of appetite, weight loss.
- Pallor, fatigue.
- Headache, high blood pressure, incontinence, urinary frequency.
- Poor growth, not growing as fast as peers.

## Common Medications Used In Treatment

- Iron preparations: To treat iron deficiency anemia.
- Calcium supplements/phosphate binders: To help decrease high phosphorus levels in the blood and treat renal bone disease. Usually prescribed to be taken with meals.
- Vitamin D or calcitrol: To treat and prevent bone disease.

- Antihypertensives: To control high blood pressure.
- Human growth hormone/HGH: Long-term treatment of growth failure; given as a subcutaneous injection.
- Erythropoietin-stimulating agents: To promote red blood cell production; given as a subcutaneous injection.
- Bicarbonate supplements: To treat metabolic acidosis, help control bone disease, and optimize growth.

## Nutritional Considerations

Nutritional needs for the child with CKD often change as kidney function declines. Many children with inadequate caloric intake require nutritional supplements either orally or by NG or G-tube. A renal dietician will be involved in making an individualized diet program for these children as well as working with the renal team to monitor their growth and laboratory values.

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## Special Needs

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\_\_\_\_\_ is a student at your school and is being treated for chronic kidney disease at \_\_\_\_\_.

His/her primary kidney disease is \_\_\_\_\_.

## Reference

KDIGO. (2013). KDIGO 2012 Clinical Practice Guideline for the Evaluation and Management of Chronic Kidney Disease. *Kidney International Supplements*, 3(1), 1-150. [https://kdigo.org/wp-content/uploads/2017/02/KDIGO\\_2012\\_CKD\\_GL.pdf](https://kdigo.org/wp-content/uploads/2017/02/KDIGO_2012_CKD_GL.pdf)

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### Additional Information:

American Nephrology Nurses Association  
East Holly Avenue/Box 56  
Pitman, NJ 08071-0056  
(856) 256-2320  
1 (888) 600-2662

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Pitman, NJ

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