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## Focal segmental glomerulosclerosis

Focal segmental glomerulosclerosis is scar tissue in the filtering unit of the kidney. This structure is called the glomerulus. The glomeruli serve as filters that help the body get rid of harmful substances. Each kidney has thousands of glomeruli.

"Focal" means that some of the glomeruli become scarred. Others remain normal. "Segmental" means that only part of an individual glomerulus is damaged.

### Causes

The cause of focal segmental glomerulosclerosis is often unknown.

The condition affects both children and adults. It occurs slightly more often in men and boys. It is also more common in African Americans. Focal segmental glomerulosclerosis causes up to a quarter of all cases of nephrotic syndrome.

Known causes include:

- Drugs such as heroin, bisphosphonates, anabolic steroids
- Infection
- Inherited genetic problems
- Obesity
- Reflux nephropathy (a condition in which urine flows backward from the bladder to the kidney)
- Sickle cell disease
- Some medicines

### Symptoms

Symptoms may include:

- Foamy urine (from excess protein in the urine)
- Poor appetite
- Swelling, called generalized edema, from fluids held in the body
- Weight gain

## Exams and Tests

The health care provider will perform a physical exam. This exam may show tissue swelling (edema) and high blood pressure. Signs of kidney (renal) failure and excess fluid may develop as the condition gets worse.

Tests may include:

- Kidney biopsy
- Kidney function tests (blood and urine)
- Urinalysis
- Urine microscopy
- Urine protein

## Treatment

Treatments may include:

- Medicines to reduce the body's inflammatory response.
- Medicines to lower blood pressure. Some of these medicines also help reduce the amount of protein that spills into the urine.
- Medicines to get rid of excess fluid (diuretic or "water pill").
- Low sodium diet to reduce swelling and lower blood pressure.

The goal of treatment is to control the symptoms of nephrotic syndrome and prevent chronic kidney disease or failure. These treatments may include:

- Antibiotics to control infections
- Fluid restriction
- Low-fat diet
- Low- or moderate-protein diet
- Vitamin D supplements
- Dialysis
- Kidney transplant

## Outlook (Prognosis)

A large portion of people with focal or segmental glomerulosclerosis will develop chronic kidney disease or failure.

## Possible Complications

Complications may include:

- Chronic kidney disease or failure
- End-stage kidney disease

- Infection
- Malnutrition
- Nephrotic syndrome

## When to Contact a Medical Professional

Contact your provider if you develop symptoms of this condition, especially if there is:

- Fever
- Pain with urination
- Decreased urine output

## Prevention

No prevention is known.

## Alternative Names

Segmental glomerulosclerosis; Focal sclerosis with hyalinosis

## References

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