# **Frequently Asked Questions**

# Q: How is MCD diagnosed?

A: Several tests are used to confirm a diagnosis of MCD:

- Urine: analyze for the presence of protein
- Blood: determine levels of protein, creatinine, albumin and cholesterol
- Kidney: Glomerular filtration rate (GFR):
   (estimate of kidney function), ultrasound (image
   of kidney created using sound waves) and biopsy
   (surgical removal and examination of small piece
   of kidney under a microscope).

### Q: Who gets MCD?

A: Children of all ages and even adults can get MCD. However, young children, under the age of 5, are at greatest risk. Boys are twice as likely as girls to develop MCD.

# Q: Does MCD cause permanent injury to the kidneys?

A: The disease usually goes away without causing kidney damage.



# Did you know?

The UNC Kidney Center's kidney education podcasts cover Minimal Change Disease and many other topics. Podcasts are free and available on iTunes or www.unckidneycenter.org/podcast.html



HEY DOC, HOW ARE MY KIDNEYS? TM
Kidney Education Outreach Program

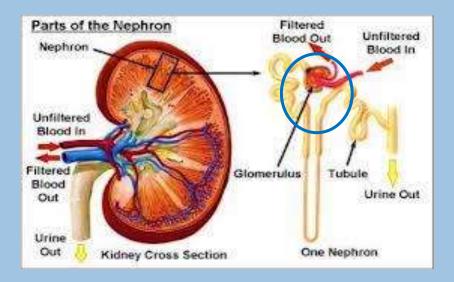
# **Kidney Education Minimal** Change Disease

# **Minimal Change Disease**

# What is Minimal Change Disease?

Minimal change disease (MCD) occurs when glomeruli, the tiny blood vessels located in the nephron—in blue circle below, are damaged. Nephrons filter urine and remove waste from the body.

Minimal is an appropriate word because the nephrons, even though damaged, appear to be normal when viewed by with a regular microscope. It is only with a more powerful (electron) microscope that damaged nephrons can be seen.



MCD often (about 80% of cases) leads to nephrotic syndrome in children, but MCD results in nephrotic syndrome in adults less often (10-15% of cases).

MCD does not affect the amount of urine produced and rarely progresses to kidney failure.

# **Minimal Change Disease**

# What Causes Minimal Change Disease?

The cause of the disease is not known, but it may be related to:

- Allergic reactions
- NSAID use (such as aspirin and ibuprofen)
- Tumors
- Vaccinations
- Viral infections

# What are the Symptoms of Minimal Change Disease?

- Urine appears foamy
- Poor appetite
- Swelling (around eyes, feet, ankles, abdominal area)
- Weight gain (fluid retention)

# What is the Treatment for Minimal Change Disease?

Corticosteroids can cure minimal change disease in most children but some patients may need to remain on steroids to prevent another onset of the disease.

In general, adults' responses to steroid treatment are not as good as the responses of children, but steroids are effective for many adults. The physician may also recommend medicines to control cholesterol, control blood pressure, control protein in urine and to prevent blood clots.