## Obesity Tied to Worsening Kidney Function in Kids

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Reno, Nev. — Increased body mass index is correlated with worsening proteinuria in children, according to study findings presented at the annual meeting of the American College of Nutrition.

The data confirm the hypothesis that obesity contributes to a decline in the glomerular filtration rate, an indicator of kidney function, said Dr. Carolyn Abitbol

of the Division of Pediatric Nephrology at the University of Miami.

The study included 40 obese children: 16 low-birth-weight children (less than 1,200 grams) and 24 children of normal birth weight (more than 2,500 grams). Obesity was defined as a body mass index (BMI) of greater than the 95th percentile for age and gender. The study also included 20 nonobese children of normal birth weight as clinical controls. All of the children in the study had proteinuric kidney disease. The

researchers excluded any patients who had acute glomerulonephritis immune-mediated nephritis, overt diabetes, as well as patients who had HIV nephropathy.

Dr. Abitbol and colleagues performed kidney biopsies of nine children in the obese, low-birth-weight group; all had focal segmental glomerulosclerosis (FSGS).

Of the children in the normal birth weight, obese group, 16 were biopsied and 14 had FSGS. One patient had focal mesangial proliferative glomerulonephropathy,

probably an early form of FSGS. Another had a membranous nephropathy, which is unique and immune mediated. In the nonobese control group, all of the children were biopsied and 14 had FSGS, 4 had mesangial glomerulonephropathy, 1 had minimal change, and 1 was membranous.

Researchers compared the mean renal survival relative with birth weight and found low-birth-weight patients had a loss of glomerular filtration rate significantly earlier than those of normal birth weight.

