

PERIPHERAL ARTERIAL DISEASE IN U.S. ADULTS WITH METABOLIC SYNDROME INCREASES WITH DECREASED GFR: RESULTS FROM NHANES SURVEYS (2001-2004)

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Peripheral artery disease (PAD), identified by a low Ankle Brachial Index (ABI), is a marker of subclinical coronary artery disease. Its presence identifies individuals at high risk for future cardiovascular disease (CVD) events. The prevalence of the metabolic syndrome (MetSyn) is also high in the United States and is also associated with an increased risk of developing cardiovascular disease. In addition, a decreased eGFR is indicative of kidney disease (CKD) and is an independent risk factor for CVD. The purpose of this study was to determine the prevalence of PAD in patients with MetSyn with a decreased eGFR. We analyzed data from two National Health and Nutrition Examination Surveys (NHANES) between the years 2001-2004. The presence of the MetSyn was determined using ATP III criteria; eGFR was calculated using the abbreviated Modification of Diet in Renal Disease Study formula based on serum creatinine, age, and race; and the presence of PAD was defined as an ankle-brachial index < 0.9. All estimates were weighted. The odds of having PAD increases significantly as the eGFR decreases in those U.S. adults without MetSyn. The odds of having PAD increase at a greater rate among U.S. adults with the MetSyn. For instance, the odds of a person with MetSyn and an eGFR between 30-59 is 7 times that of a person without MetSyn and an eGFR of 90+. The combination of MetSyn and a decreased eGFR significantly increase the odds of having PAD.

eGFR	Metabolic Syndrome	
	No (% , OR)	Yes (% , OR)
90+	3.2%, 1.00 (Reference)	3.7%, 1.19
60-89	3.8% 1.20	10.4%, 3.55
30-59	15.0%, 5.39	18.6%, 6.98
15-29	33.1%, 15.1	47.1%, 22.7