Major causes of and approach to nonnephrotic proteinuria

Type	Frequency in office practice	Pathophysiology
Exclude first		
Transient proteinuria secondary to stress such as fever or heavy exercise	4 percent of men 7 percent of women	Possibly transient angiostensin II or norepinephrine-mediated alterations in glomerular permeability
Orthostatic proteinuria	2 to 5 percent of adolescents Uncommon over age 30	Not clear; ? neurohumoral or altered glomerular hemodynamics
Hemodynamic causes		
Congestive heart failure; renovascular hypertension		Possibly angiotensin II and, in heart failure, norepinephrine-mediated increase in glomerular permeability
Glomerular proteinuria	Major cause when above disorders excluded; responsible for all causes of nephrotic syndrome	Abnormalities in glomerular capillary wall
Glomerular diseases Diabetic nephropathy	Increasing frequency with prolonged duration of diabetes	
Reflux nephropathy and other tubulointerstitial diseases		Secondary glomerular injury due to hemodynamic and structural changes resulting from nephron loss
Overflow proteinuria		
Multiple myeloma with cast nephropathy	Uncommon	Overproduction of light-chains, leading to tubular obstruction; suspect if acute renal failure, bland urine sediment, negative dipstick for protein, and positive sulfosalicylic acid test, indicating nonalbumin proteinuria