

Interpreting Abnormal Proteinuria in Pregnancy: The Need for a More Pathophysiological Approach

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Obstet Gynecol 2010;115(2)

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1. To improve the accuracy of 24-hour urine collections for protein determination, one should:
 - A. Keep the patient in bed all day
 - B. Prescribe a protein-restricted diet for the day of collection
 - C. Have the patient follow a strict routine and be hydrated before starting and ending the collection
 - D. Restrict the patient's water intake during collection day
 - E. Insure the collecting receptacle contains a preservative

2. The cut-off value for normal protein excretion in **non-pregnant** patients is generally:

- A. 50 mg/day
- B. 100 mg/day
- C. 150 mg/day
- D. 200 mg/day
- E. 300 mg/day

3. The cut-off value for normal protein excretion in **pregnant** patients is generally:

- A. 50 mg/day
- B. 100 mg/day
- C. 150 mg/day
- D. 200 mg/day
- E. 300 mg/day

4. Approximately what percent of urinary proteins are glomerular in origin?

- A. 40%
- B. 60%
- C. 70%
- D. 80%
- E. 100%

5. The reduced filtration of anionic albumin is due primarily to its:

- A. Solubility in water
- B. Decreased plasma concentration during pregnancy
- C. Molecular shape
- D. Molecular size
- E. Electrical charge

6. In preeclamptic patients, the reduced ability of renal podocytes to inhibit the flow of protein into the renal filtrate is thought to be due to the effects of:
- A. Increased vascular endothelial growth factor (VEGF) levels
 - B. Increased soluble fms-like tyrosine kinase-1 (sFlt-1) levels
 - C. Increased renal perfusion pressure
 - D. Reduced oncotic pressure
 - E. Reduced basement membrane electrical charge
7. Which of the following could result in an increase in “functional proteinuria”?
- A. Bed rest
 - B. Yoga and meditation
 - C. Fever
 - D. Very high fluid intake with polyuria
 - E. Reduced glomerular filtration rate
8. A dipstick test for the detection of proteinuria performed on a spot urine sample could result in a false negative reading in which of the following instances?
- A. Alkaline urine
 - B. Urinary tract infection
 - C. Compulsive water consumption
 - D. Increased vasopressin levels
 - E. Excessively concentrated urine
9. Data in the literature suggest that approximately what percentage of 24-hour urine collections during pregnancy are erroneous?
- A. 5%
 - B. 10%
 - C. 20%
 - D. 30%
 - E. 50%

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