

# Predictors of Post-Op Renal Failure

## Anesthetic Pearls: Anesthetic Implications of Post-Operative Renal Failure

1. Advanced Age (> 70 yr)
2. Cardiovascular Dysfunction:
  - myocardial failure with decreased cardiac output
  - hypotension
  - hypertension
3. Hypovolemia
  - hemorrhage
  - dehydration
  - third space loss
4. Major Trauma – secondary to direct injury, fluid shifts, ischemia, and parenchymal congestion
5. Electrical Burns – myonecrosis, myo / hemoglobinuria
6. Muscle Necrosis
7. Sepsis – secondary to hypovolemia, hypoperfusion, vasodilatory mediators / shock
8. Hepatic Failure – leading to hepato-renal syndrome; caused by disturbances in albumin synthesis, coagulation homeostasis, drug metabolism, elimination of waste products, immunologic function / modulation.
9. Pancreatitis
10. Diabetes Mellitus – secondary to destruction of the kidney parenchyma and via HTN
11. High Risk Surgery: abdominal aortic / thoracic aortic aneurysm; cardiopulmonary bypass
12. Infections: glomerulonephritis / pyelonephritis
13. Pharmacologic: radiocontrast dye, aminoglycosides, NSAID's, vasoconstrictors, diuretics
14. Increased Renal Blood Flow in conjunction with nephrotoxins

