

## ADENOSINE

**Additional Names:** Adenocard, Adenoscan

**Classification:** Atrial antiarrhythmic, Endogenous nucleotide

**Indications:** Stable Narrow Complex Tachycardia, refractory to vagal maneuvers

**Contraindications:** Known hypersensitivity  
Bradycardias and AV blocks > than 1°  
Sick-sinus syndrome

**Dosages:**

**Adult:**

Stable, Regular, Narrow-Complex Tachycardia  
Initial: 6-12mg Rapid IV/IO push, followed by 20ml flush, q 1-2min  
2<sup>nd</sup>: 12mg Rapid IV/IO push, followed by 20ml flush

**Pediatric:**

Probable SVT  
Initial: 0.1mg/kg IV, q 1-2 min, max 6mg  
2<sup>nd</sup>: Double first dose, max 12mg

Ventricular Tachycardia  
If rhythm is regular and monomorphic:  
Initial: 0.1mg/kg IV, q 1-2min, max 6mg  
2<sup>nd</sup>: Double first dose, max 12mg

**Side Effects:** Transient periods of asystole/bradycardia/ventricular ectopy, hypotension, palpitations, chest pain, facial flushing, dyspnea, dizziness, tingling, or headache

**Physiological :  
Effects** Adenosine is an endogenous nucleotide, a derivative of Adenosine Triphosphate (ATP). Adenosine slows conduction time through the AV-node and can interrupt re-entry pathways through the AV-node, restoring sinus rhythms to patients experiencing SVTs. Adenosine half-life < 10 seconds. Onset is immediate.

**Additional Info:** Vagal/Valsalva maneuvers/ice pack to face first, when clinically appropriate.  
Large bore IV access (16g) should be obtained as proximal as possible.  
Higher efficacy of conversion with use of stopcock and extremity elevation during administration. Follow with a rapid saline flush.  
Does not convert Atrial Fibrillation, Atrial Flutter, or Ventricular Tachycardia.  
Larger doses may be required for patients taking Theophylline or Caffeine.  
Reduced doses may be required for patients taking Dipyridamole (Persantine) or Carbamazepine (Tegretol).