

Adenosine (Adenocard)

Adult Cardiac Narrow Complex Tachycardia <u>Pediatric Cardiac - Narrow Complex Tachycardia</u>		
P	Adult	6 mg RIVP followed by a 20 cc NS flush and a second dose 12 mg RIVP and 20 cc flush after 1-2 minutes if not consistent change in ECG
	Pediatric	0.1 mg/kg (max 6 mg) RIVP with flush, administer a second dose of 0.2 mg/kg RIVP not to exceed 12 mg with flush in no consistent change in ECG Weight Based Pediatric Dosing Chart Link

KEY POINT

- If no response to Adenosine, contact [MCEP](#) to discuss possible [synchronized cardioversion](#) and orders for sedation
- Adenosine will not be administered in our prehospital system to patients with known Wolff Parkinson White disorder, wide complex tachycardia (QRS >0.10 sec), A-Flutter, A-Fib, or any narrow or wide complex dysrhythmia with irregular rate
- Adenosine should be used with caution in patients with a history of reactive airway disease, especially in patients who are actively wheezing, because it may cause bronchospasm. In this situation, contact [MCEP](#) prior to use

Consider the following drug interactions and conditions:

- Tegretol (Carbamazepine), Aggrenox and Dipyridamole (Persantine) enhance the effects of Adenosine and may increase the duration of AV blocks and periods of asystole
- The effects of Adenosine are also prolonged in heart transplant patients
- In the above circumstances, maintain initial dose of 6 mg but decrease second dose (if needed) to 6 mg

Class:

- Antiarrhythmic

Description of Use:

- Endogenous nucleoside; slows conduction time through AV node, can interrupt reentry pathways through the AV node, and can restore normal sinus rhythm in patients with PSVT

Pharmacokinetics:

- Onset: Almost immediate
- Half-life: <10 seconds

Special Populations:

Pregnancy Category: C

Children: No age-related precautions noted

Elderly: No age-related precautions noted

Contraindications:

- 2nd- or 3rd-degree atrioventricular (AV) block, and sinus node disease (eg, sinus syndrome or symptomatic bradycardia), except w/ functioning artificial pacemaker
- As noted above

Cautions:

May produce short-lasting 1st-, 2nd-, or 3rd-degree heart block; institute appropriate therapy PRN. Do not give additional doses if high-level block develops on 1st dose. Transient or prolonged asystole, respiratory alkalosis, [ventricular fibrillation](#) (rare) reported. New arrhythmias may appear on ECG at time of conversion. Caution w/ obstructive lung disease not associated w/ bronchoconstriction (eg, emphysema, bronchitis). Avoid w/bronchoconstriction/bronchospasm (eg, asthma). D/C if severe respiratory difficulties develop. Caution in elderly. Does not convert A-Fib/Flutter, or [ventricular tachycardia](#) to normal sinus rhythm. A transient modest slowing of ventricular response may occur immediately following administration in the presence of A-fib/flutter

Adverse reactions:

Arrhythmias, facial flushing, dyspnea/SOB, chest pressure, nausea