### History
- Medications (e.g., Aminophylline, Adderall, diet pills, thyroid supplements, decongestants, and Digoxin)
- Diet (e.g., caffeine and chocolate)
- Drugs (e.g., nicotine and illegal drugs)
- Past medical history
- History of palpitations/heart racing
- Syncope/near syncope
- Renal failure
- Missed dialysis

### Signs and Symptoms
- Heart rate > 150
- Systolic BP < 90
- Dizziness, chest pain, shortness of breath, altered mental status or diaphoresis
- Acute pulmonary edema
- Potential presenting rhythm:
  - Atrial/sinus tachycardia
  - Atrial fibrillation/flutter
  - Multifocal atrial tachycardia
  - Ventricular tachycardia

### Differential
- Heart disease (e.g., WPW or valvular)
- Sick sinus syndrome
- Myocardial infarction
- Electrolyte imbalance
- Exertion, pain, or emotional stress
- Fever
- Hypoxia
- Hypovolemia or anemia
- Drug effect/overdose (see History)
- Hypothyroidism
- Pulmonary embolus

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**Oxygen to maintain SpO₂ of 92%**

**Cardiac monitor**

**Establish IV/IO**

**12-Lead ECG**

**Don’t delay therapy**

**Evaluate QRS duration**

- ≤ 0.08 seconds
  - **Sinus Tachycardia**
    - Infants: Variable HR < 220/min
    - Children: Variable HR < 180/min
    - **Normal Saline bolus**
    - Use Broselow Tape; refer to dosing guide
    - **May repeat x2**
    - If rhythm change, repeat 12-Lead ECG

- > 0.08 seconds
  - **Narrow Complex Tachycardia**
    - Infants: Non-variable HR ≥ 220/min
    - Children: Non-variable HR ≥ 180/min
    - **Consider**, Valsalva maneuver
    - **Consider**, amnesia pre-cardioversion
    - **Midazolam**
    - Use Broselow Tape; refer to dosing guide
    - **Synchronized cardioversion**
    - Use Broselow Tape; refer to dosing guide
    - If rhythm change, repeat 12-Lead ECG

**Notify receiving facility.**

**Consider Base Hospital for medical direction**

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**San Mateo County Emergency Medical Services**

**Pediatric Tachycardia (Unstable)**

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**Effective August 2020**
Pearls
- Most important goal is to differentiate the type of tachycardia and if STABLE or UNSTABLE.
- Unstable is defined by poor perfusion, hypotension, respiratory difficulty and altered mental status.
- Early transport is always appropriate in unstable patients.
- Consider presentation and known history. Search for and treat cause(s).
- Separating the child from the caregiver may worsen the child’s clinical condition.
- Pediatric pads should be used in children < 10kg or Broselow measurement of Purple.
- Monitor for respiratory depression and associated hypotension associated if Midazolam is used.