



Pediatric Chest Pain Evaluation Algorithm

To effectively and safely
rule out cardiac etiology for
chest pain

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Algorithm

- Based on a series of responses to questions regarding history and physical exam
- All “yes” answers in algorithm lead to a recommendation for cardiovascular evaluation
 - ***Activity restrictions while awaiting appointment*** *Patients awaiting cardiovascular evaluation for chest pain should generally be restricted from competitive sports and vigorous exercise until evaluated by cardiology*
 - ***Indications for the ER*** *Patients who are toxic-appearing, have severe, sudden onset chest pain, and those who have significantly abnormal vital signs should be considered for evaluation in the emergency department*

Pain Features

- Acute onset < 48 hours
- Positional (worse supine, improved with leaning forward)
- With Exercise

↓ No

Associated Symptoms

- Palpitations
- Syncope
- Unexplained shortness of breath

↓ No

Additional Symptoms

- Syncope *during* exercise, emotion, or startle?
- Syncope *after* exercise?
- Extreme fatigue associated with exercise (different from others their age)?
- Unusual or extreme shortness of breath during exercise?

↓ No

Yes

Yes

Yes

Obtain Cardiovascular Evaluation

Additional Medical History

- Congenital Heart Disease
- Kawasaki Disease
- Turner Syndrome

↓ No

Family History

- Any family members who died suddenly of heart problems before age 50?
- Any family members who have unexplained fainting or seizures?
- Any relatives with the following conditions?
 - Hypertrophic cardiomyopathy
 - Dilated cardiomyopathy
 - Connective tissue disorder (Marfan or Ehlers-Danlos Syndrome)
 - Aortic Rupture, dissection, or aneurysm

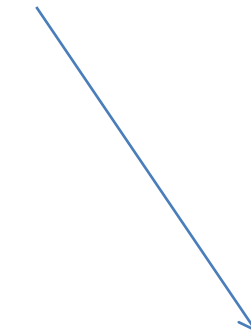
↓ No

Physical Exam Features

- Unexplained fever
- Signs of connective tissue disease (Marfan)
- Pathologic Murmur
- Rub
- Click
- Kawasaki criteria
- Signs of heart failure
- Xanthomas

↓ No

Yes



Yes



Obtain Cardiovascular Evaluation



Yes

Chest Pain is non-cardiac, patient does not require cardiovascular evaluation