



PALPITATIONS & ARRHYTHMIAS

IN CHILDREN



The heart has its own electrical system that controls the heartbeat. Sometimes that system can beat too fast, too slow, or irregularly.

1. TACHYCARDIA

Heart rate is **too fast.**



Common causes include fever, dehydration, anxiety, anemia, thyroid issues, stimulants/caffeine, SVT, WPW, and other arrhythmias.



2. BRADYCARDIA

Heart rate is **too slow.**



May be normal in athletic children during sleep, but concerning if associated with dizziness, fatigue, fainting, or poor perfusion.



3. IRREGULAR HEART RATE

Heart rhythm is **not consistent.**



Can be due to premature beats, sinus arrhythmia, SVT, atrial rhythms, or less commonly ventricular arrhythmias.



4. HEART BLOCK

Electrical signals from the upper chambers do not pass normally to the lower chambers.



Severe heart block can cause slow heart rate, fatigue, dizziness, fainting, or may require a pacemaker.



SYMPTOMS TO ASK ABOUT

- Fluttering or racing heart
- Skipped beats
- Chest discomfort
- Dizziness or lightheadedness
- Shortness of breath
- Fatigue or exercise intolerance
- Fainting
- Episodes that start and stop suddenly

EVALUATION

A pediatric cardiology evaluation may include:

- ECG (electrocardiogram)
- Echocardiogram
- Holter/Event Monitor
- Exercise Test
- Blood Tests
- Medication Review
- Family History Screening

SEEK URGENT CARE NOW IF

- Palpitations occur with fainting or near-fainting
- Chest pain
- Severe shortness of breath or trouble breathing
- Blue color of lips or face
- Very fast heart rate that does not stop
- Known heart disease
- Family history of sudden cardiac death or heart rhythm problems

TREATMENT DEPENDS ON THE CAUSE



Observation & monitoring



Hydration & avoiding triggers (caffeine, etc.)



Treating underlying conditions (fever, anemia, thyroid problems, etc.)



Medications



Vagal maneuvers for SVT



Ablation (in selected cases)



Pacemaker for significant heart block

Many arrhythmias in children are treatable. Early evaluation brings peace of mind and better outcomes.



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HEART RHYTHM REGULATION EXERCISES

RHYTHMIC BREATHING FOR A CALM, BALANCED HEART

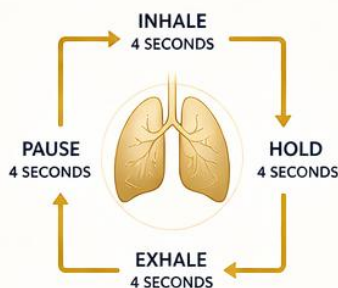
These exercises use rhythmic breathing to send calming signals to your nervous system, helping shift your heart from a stress-related irregular pattern to a more balanced and coherent rhythm.



1

BOX BREATHING

Used in high-stress environments to calm the body and mind.



Inhale: Breathe in slowly through your nose for 4 seconds.



Hold: Hold your breath for 4 seconds.



Exhale: Breathe out slowly for 4 seconds.



Pause: Wait 4 seconds before the next breath.

Repeat for at least 4 cycles.

2

COHERENCE BREATHING

One of the most effective techniques for heart rhythm coherence and emotional balance.



✓ Sit comfortably and place your hand over your heart.

✓ Breathe slowly:
5 seconds inhale • 5 seconds exhale (no breath holding)

✓ Imagine the breath flowing in and out of your heart.



Enhance the effect by recalling a positive memory or feeling gratitude. This emotional state helps create a smooth, wave-like heart rhythm.

3

LONG EXHALE TECHNIQUE (THE CALM BREATH)

Ideal for quickly calming a fast or racing heartbeat.



INHALE
2
SECONDS

EXHALE
4-6
SECONDS

✓ Take a short inhale (about 2 seconds).

✓ Make your exhale longer (4-6 seconds).

✓ A longer exhale activates the vagus nerve, which slows the heart rate and promotes relaxation.



Longer exhale = More calm
Stronger vagus nerve activation

WHEN TO USE THESE EXERCISES



Before making important decisions



During stress or chest tightness



When experiencing palpitations or anxiety



Before sleep to improve rest quality



During work breaks to reduce stress



IMPORTANT MEDICAL NOTE

These exercises are helpful for stress-related heart rhythm changes, but they do not replace medical evaluation if you experience:

• Frequent or persistent palpitations

• Dizziness or fainting

• Chest pain

• Known heart conditions



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