

ENERGY DRINKS AND ATHLETES

Performance today should not come at the cost of your heart tomorrow.



ENERGY DRINKS

Stimulation, not hydration



- High in caffeine and other stimulants (guarana, taurine, etc.)
- Intended to increase alertness and energy
- Not recommended for children or adolescents
- Not the same as a sports drink

SPORTS DRINKS

Fuel and fluid for longer exercise



- Provide fluid, carbohydrates, and electrolytes
- Help replace losses during prolonged, vigorous activity
- Used in selected situations (such as long or intense exercise)
- Water is usually sufficient for routine exercise

EFFECTS ON THE HEART AND BODY



- Increases heart rate and may cause palpitations
- Can raise blood pressure
- May affect the heart's electrical activity (rarely associated with arrhythmias)
- Can add extra strain during exercise, especially in heat, when combined with sleep deprivation or other stimulants

HOW MUCH CAFFEINE?

Approximate amounts per serving (varies by product).

	Standard energy drink (8.4 oz)	80 mg
	Large energy drink (16 oz)	160 mg
	High-caffeine energy drink	200 mg
	Concentrated energy shot	200 mg or more

Some products contain 300 mg or more per container. For healthy adults, the FDA cites 400 mg per day as an amount not generally associated with dangerous effects. This is not a recommended target, does not guarantee safety, and does not apply to children or adolescents.

DO ENERGY DRINKS IMPROVE PERFORMANCE?



- Caffeine may provide modest performance benefits in some adult athletes.
- More caffeine does not mean better performance.
- Energy drinks are not proven to be safe or beneficial for adolescent athletes.
- Can cause side effects such as anxiety, tremor, nausea, and impaired coordination.
- Sleep disruption can negatively affect recovery and future performance.

ATHLETES AT HIGHER RISK



- Congenital heart disease or previous cardiac surgery
- Long QT syndrome, CPVT, or other inherited arrhythmia syndromes
- Hypertrophic cardiomyopathy or other cardiomyopathies
- History of unexplained syncope or exercise-related palpitations
- Hypertension
- POTS or other forms of dysautonomia

Energy drinks should not be recommended as treatment for POTS. They can improve alertness in some individuals but may also worsen tachycardia and palpitations.

EVIDENCE-BASED RECOMMENDATIONS

Routine practice (< 60 minutes)	➤ Water
Prolonged, vigorous exercise	➤ Water; consider sports drinks when additional carbohydrate/electrolyte replacement is needed
Hot-weather training	➤ Individualized fluid and sodium replacement
Fatigue before competition	➤ Address sleep, nutrition, and recovery
Adolescent athlete	➤ Avoid energy drinks
Athlete with known cardiac disease	➤ Individualized cardiology guidance

SAFETY PEARLS

- For children and adolescents, the safest recommendation is to avoid energy drinks.
- Water is the best choice for most exercise.
- Sports drinks are only needed for prolonged or intense activity.
- Be aware of total caffeine intake from multiple sources (energy drinks, pre-workout supplements, caffeine tablets).
- Adequate sleep, nutrition, and conditioning are key to performance.
- Discuss any heart symptoms or concerns with a healthcare professional, especially if there is a personal or family history of heart disease.

WARNING SIGNS

Stop activity and seek medical attention for:

- Chest pain during exercise
- Fainting during exertion
- Sustained rapid or irregular heartbeat with dizziness
- Severe shortness of breath out of proportion to activity
- Seizure or collapse after stimulant consumption

Call 911 for collapse, exertional syncope, severe chest pain, or persistent serious symptoms. Athletes with concerning exercise-related symptoms should stop participation pending medical evaluation.



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Healthy Hearts
Brighter Tomorrows
for Active Kids