SPORTS PERFORMANCE NUTRITION

Energy Drinks & the Young Athlete

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01 WHAT ARE ENERGY DRINKS?

Energy drinks are built around high doses of caffeine, usually stacked with sugar, taurine, guarana, and B-vitamins to create a stimulant effect. They're designed to boost alertness and delay fatigue by blocking adenosine, the brain chemical that signals tiredness.

That's a different job than a sports drink. Sports drinks replace fluids, electrolytes, and carbs lost during activity — energy drinks don't. Caffeine content also isn't tightly regulated: a 16-ounce can may hold anywhere from about 90 mg to well over 240 mg of caffeine, often far more than players realize they're drinking.

02 WHAT THEY DO TO A YOUNG ATHLETE

CAFFEINE SENSITIVITY

Teen bodies and brains are more sensitive to stimulants than adult ones. Regular use is linked to trouble sleeping, higher anxiety, aggression, and depression.

SUGAR CONTENT

A 16-oz Monster carries about 54g of sugar, a 16-oz Rockstar about 63g — more than a full day's recommended limit for a teen in one can.

STIMULANT LOAD

The caffeine-plus-sugar combo can drive anxiety, hyperactivity, inattention, sensation-seeking, and poor decision-making.

The American Heart Association recommends teens cap added sugar at roughly 25g a day — one energy drink can blow past that on its own, and "zero sugar" versions still carry the same high caffeine load.

03 PERFORMANCE: MYTH VS. REALITY

Caffeine, on its own, at moderate doses, is a well-supported performance aid in adults — but energy drinks aren't simple caffeine. The higher doses typical of an energy drink haven't been well studied in adolescents, and they're associated with side effects like a racing heart, palpitations, anxiety, headaches, and trouble sleeping.

Any jittery, overstimulated feeling can hurt fine motor control, decision-making, and composure on the field just as easily as it helps reaction time — plus the diuretic and gut effects of a big stimulant hit raise dehydration risk during a game or practice.

04 RECOVERY & SLEEP

This is where energy drinks do the most damage. Chronic sleep deprivation — a common side effect of regular use — impairs cognitive function, reaction time, and even muscle memory, leaving an athlete performing sub-optimally and at higher injury risk.

Research in adolescents links heavier energy drink and caffeine intake to sleep problems and daytime sleepiness — especially concerning since sleep is central to the brain maturation happening throughout adolescence. Sleep is the recovery window between games and practices; anything that shrinks it works against the exact adaptation training is meant to produce.

AMERICAN ACADEMY OF PEDIATRICS RECOMMENDATION

The AAP recommends that adolescents not consume energy drinks at all. The National Federation of State High School Associations similarly advises young athletes against using them for hydration.

05 WHAT TO DRINK INSTEAD

WATER

The default for most practices and games — no downside, no crash.

MILK

Protein and fluids together — a solid post-practice or bedtime option.

SPORTS DRINKS

Carbs and electrolytes during long or hot sessions — built for replacement, not stimulation.

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