

Nutritional Nuggets

Westchester County Health Department

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VOLUME X

Energy Drinks

Slick packaging, catchy names, edgy themes, exotic ingredients and special formulas are all part of the hype surrounding energy drinks.

Teens, tweens and young adults can't get enough of so-called Energy drinks. These drinks are known by hundreds of names, come in sizes ranging from two ounce shots to 16 ounce bottles and cans, and millions of kids drink them everyday. Sales have soared and energy drink sales are now a \$3 billion business in the United States alone.

But what's in these drinks?

Energy drinks are soft drinks that contain large amounts of caffeine and sugar with additional ingredients such as B vitamins, amino acids and herbal stimulants like echinacea, ginko biloba and ginseng.

Why are they so popular?

Energy drinks are marketed as a quick way to relieve fatigue and improve performance, often causing confusion about the difference between "energy" and "sports" drinks. Sports drinks, like Gatorade and Powerade, are designed to provide rehydration after sustained physical activity. They contain relatively small amounts of carbohydrate and an electrolyte mixture for rehydration.

Energy drinks contain sugar for energy and caffeine, which stimulates the central nervous system. Energy drinks should not be used for hydration because caffeine acts as a diuretic and can increase fluid loss.

The caffeine content of energy drinks varies widely.

Some contain as much caffeine as four 6-ounce cups of coffee. Many exceed the 0.02% caffeine limit allowed by the Food and Drug Administration (FDA) for soft drinks.



"Energy shots" are a popular addition to this market. A 2-ounce energy shot provides a concentrated dose of caffeine, B vitamins and amino acids. These are growing in popularity because it is easier to drink a 2-oz. shot than an 8 or 16-ounce can.

Many manufacturers will not reveal exactly how much caffeine is in their drinks or shots, nor are they required to. Some say only that it is equivalent to the amount of caffeine in a cup of coffee. Today's eight ounce cup of coffee can range from 60 to 180 milligrams of caffeine.

To get the advertised boost of energy in an energy drink or shot, you must consume a lot of caffeine. This can lead to light-headedness, abnormal heart rhythms, tremors, restlessness, nausea, impaired sleep and difficulty with fine motor skills. Some energy drinks with a high concentration of carbohydrates can cause abdominal cramping and diarrhea.

Even more alarming, young adults are also mixing energy drinks with alcohol - a potent and dangerous cocktail. Energy drinks contain stimulants while alcohol is a depressant. The stimulant effects of Energy drinks can mask intoxication and prevent you from realizing how much alcohol has dulled your senses and slowed your reaction time.

Rather than reach for a quick fix to feel more energetic, you should get enough sleep, exercise regularly and eat a healthy diet. This will increase your short-term energy and also help you maintain your physical and mental health over a lifetime.

Energy drinks are considered dietary supplements so they do not require FDA approval to be sold. To restrict the sale of these products, the FDA would have to prove that they are unsafe, which could take years.

The table below compares the contents of a can or bottle of popular energy drinks with coffee and tea.

Energy Drink	Can Size	Caffeine	Sugar (tsp)	Calories
Rockstar	8 oz.	80 mg	8	140
Monster	8 oz.	80mg	7	100
SoBe Adrenaline Rush	8.3 oz.	79 mg	8.5	140
Mt. Dew MDX	8 oz.	47 mg	8	120
Diet Pepsi Max	12 oz.	69 mg	0	0
Enviga	12 oz.	100 mg	0	5
Red Bull	8.3 oz.	80 mg	7	110
Full Throttle	16 oz.	144 mg	14.5	200
Amp Energy	8.4 oz.	75 mg	8	120
Coke Blak	8 oz.	46 mg	3	45
5 Hr Energy	2 oz.	60-180 mg	0	4
Coffee brewed (black)	8 oz.	108 mg	0	1
Coffee instant (black)	8 oz.	57 mg	0	2
Starbucks Short Coffee	8 oz.	180 mg	0	0
Tea (black)	8 oz.	45 mg	0	0

Since energy drinks are relatively new to the market, more research is needed to determine their long-term effects on health. Caffeine should be consumed in moderation. Moderate caffeine consumption is considered to be about 300 mg or about three cups of coffee a day. Even 100 mg of caffeine a day can lead to dependency. Withdrawal can result in symptoms such as headache, fatigue, irritability and depression.

Visit www.energyfiends.com and www.cspinet.org/new/cafchart.htm for information about the caffeine content of energy drinks. For more information about energy drinks, visit www.westchestergov.com/health.