

The Healthy Hoya



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Energy Drinks—What You Don't Know

The US energy drink business is a yearly \$5.4 billion industry. Energy drinks are marketed to many students who may need “wings” to help stay awake during class or study. The Food and Drug Administration (FDA) does not approve or review energy drinks since they are marketed as dietary supplements. Therefore, many drink claims have not been proven, the amount of added ingredients is neither standardized nor identified on the label and their safety is not known. The best way to feel energetic remains eating healthy foods, regular physical activity and getting enough sleep.



Common “Energy” Ingredients

Caffeine— a chemical compound that stimulates the central nervous system. Safe in smaller doses, caffeine in larger amounts may cause blood pressure spikes, headaches, nausea, sleeplessness or tremors. Caffeine in larger doses will act as a diuretic and may lead to dehydration.

Sugar— the same thing as sucrose, glucose, fructose, corn syrup or high fructose corn syrup. Sugar is known to give an instant boost but after very little time will cause a crash in both energy and alertness. Additionally, sugar has 4 calories per gram, a 8.3 ounce Red Bull has 27 grams of sugar; that's 108 non-nutritional calories!

Guarana— a South American plant that produces seeds with a 4-5% caffeine content, while a coffee bean has the caffeine content of 1-2%. Guarana in a 16-ounce energy drink ranges from 1.4 mg to as much as 300 mg. It is unclear how much guarana is in each drink because many companies do not list a milligram amount. The safety of guarana in higher levels remains unknown, but these high levels could be easily achieved by consuming multiple drinks.

Ginseng— an extract made from the root of the ginseng plant. Ginseng may increase brainpower but since ginseng is not regulated by the FDA it is difficult to know what else you may be getting in your drink! The amount of ginseng in most drinks is minimal and therefore harmful effects are unlikely, but check with your doctor first if you are taking any medications.

Taurine— one of the most abundant amino acids in the brain, which can act as a neurotransmitter, a chemical messenger that allows cells to communicate with one another. Most energy drinks have anywhere from 20 mg up to 2,000 mg of taurine in a 16-ounce beverage. When taurine is dumped into the bloodstream, via consuming an energy drink, it cannot pass through the membranes that protect the brain. But even if it could, scientists believe taurine would behave more like a sedative than a stimulant. Taurine is likely safe in small doses, but currently there is little research on taurine consumption in humans.

Energy Drinks vs. Common Caffeinated Drinks

Drink	Serving Size (Ounces)	Caffeine (mg)
Red Bull	8.3	80
Tab Energy	10.5	95
Monster	16	160
Rockstar	16	160
No Fear	16	174
Fixx	20	500
Wired X505	24	505

Drink	Serving Size (Ounces)	Caffeine (mg)
Brewed coffee	12	200
Instant coffee	12	140
Brewed tea	12	80
Mountain Dew	12	54
Pepsi	12	38
Coca-Cola	12	34.5
Bottled tea	12	20

Did You Know?

- According to the FDA, soda manufacturers cannot have more than 71 mg of caffeine per 12-ounces; currently there is no regulation for caffeine content in energy drinks
- Many “energy drinks” do not state their caffeine content; some have as much caffeine as 14 cans of soda
- Aim to limit caffeine intake to 200-300 mg per day; this is about three 8-ounce cups of coffee
- Norway, Uruguay and Denmark have banned Red Bull because of its negative health effects
- Caffeine is a stimulant, alcohol is a depressant and both are diuretics; combining the two may lead to dehydration and ultimately drinking more alcohol because the burst of energy from the sugar and caffeine misrepresent the state of inebriation
- Consuming an energy drink before exercise could increase blood pressure or over-stimulate the heart or nervous system



How Do I Stay Energized Naturally?

BREAKFAST. A balanced breakfast of carbohydrate, protein and fat causes a more gradual release of energy over the entire morning, which maintains blood sugar levels and delays hunger.

SOY. Compared with other beans, soybeans are a rich source protein that contain as much complete protein as meat. Soybeans are a good source of B vitamins and essential fatty acids, including some omega-3s and contain isoflavones that may help lower risks for some diseases.

GREEN TEA. A hot drink known to aid in stress reduction and promote mental alertness. Green tea also contains polyphenols that may help lower risks for some diseases. Remember tea contains caffeine, so look for a decaffeinated version or monitor the number of cups consumed.

WATER. The ultimate drink for hydration. Water aids in physical performance and prevents muscle cramps.