



Who Needs ENERGY DRINKS

When You Can Do This....

Naturally!

By Renee Weeks

We have all been there—the mid-afternoon slump! Lunch is over and we’re getting sleepy at our jobs. Or, we are the fitness buffs or athletes trying to get that extra “boost” of energy during our game or workout routine. Or, we might be a college student or even a secondary school student pulling an “all-nighter” cramming for an exam. Or, how about the weekend warriors and service members running on “empty?” What do some of us reach for? You guessed it, an energy drink!

But, what are we really getting when we reach for that popular energy drink?

In recent years, energy drinks have become a growing “trend” and the

market has been flooded with a variety of quick energy products. Product types range from drinks to energy shots to energy drink mixes. These products are known as beverages that promise to give the consumer an extra boost of energy. Brands of energy drink products include Red Bull, Monster Energy, Rockstar and 5-Hour Energy, just to name a few. How did this craze begin?

Energy drinks were a subset of the early soft drink industry. Pepsi, for example, was originally marketed as an energy booster. Coca-Cola’s name came about from its two active ingredients, coca leaves and kola nuts, both sources of caffeine. Coca-Cola’s formula, as you may have heard, was first developed using cocaine (a stimulant) from the coca plant, which later was changed

to caffeine (another stimulant, but of a different variety from the coca plant) due to obvious reasons. In the United Kingdom, Lucozade Energy was introduced in 1929 as a hospital drink for helping with patient recovery. In the 1980s, it was promoted as an energy drink for energy replenishment. In Japan, the energy drink dates to the early 1960s. In 1985, Jolt Cola was introduced in the United States, which was marketed as promoting wakefulness. And, so it began.

But, what are the ingredients that are usually found in the typical energy drink product of today? Well, as you might expect, caffeine in a concentrated quantity is a core ingredient. The total amount of caffeine in energy drinks, however, may not be accurately reflected on

the label. Levels of caffeine may vary between 71-316 mg of caffeine per 8 oz. serving, which exceeds the FDA limit of 71 mg caffeine per 12 fluid oz. of soda. In addition, energy drinks frequently add other ingredients such as carbohydrates, sugars, taurine (an amino acid), niacin, the B-complex vitamins, ginseng extract, guarana (contains caffeine), ginkgo, kola nut and other herbs. The health effects of these additives have not been well documented.

You may be thinking, "They work for me, why should I care about what's in them?" Let's take a quick look at exactly "how" they work.

During a recent interview with Dr. Collin Cross, physical chemist with a specialization in structural biophysics, he explained how energy drinks provide the energy to our bodies. Energy drink products provide "artificial" energy through stimulation of the central nervous system by synthetic, or non-essential compounds, to use the chemical jargon. In other words, the high concentration of caffeine and other stimulants in the energy drinks shift our central nervous system into "overdrive!"

This artificial stimulation of our nervous system does appear to give us the boost we are seeking, however, at what price? First, what happens after the stimulant-based energy boost runs down? Some people report feelings of "crashing" or other rebound effects. But, that's not the worst of it!

Caffeine, when consumed in moderation, is considered safe. Coffee and tea are thought to be parts of our cultures and are quite natural sources of energy when used in moderation. For instance, research suggests that up to four cups of coffee a day is safe for most adults. On the other hand, long-term excessive caffeine consumption can cause health issues. When comparing energy drinks to other caffeinated beverages, energy drinks may contain similar caffeine content as brewed coffee, and sometimes this is stated on the packaging, however, note the serving size. Many energy drinks are sold in 16-oz. cans or larger and may result in a much higher

concentration of caffeine. Although the body can develop a tolerance to caffeine after regular consumption, changes in blood pressure, heart rate, renal function, nervousness and insomnia have been reported. In 2011, there were 4,854 logged calls to the U.S. Poison Control Centers concerning adverse energy drink exposures,

most deemed secondary to their caffeine and stimulant toxicity.

Besides the "how" of energy drinks, maybe we should also delve into the "why" of energy drinks. An interview with Sheryl Boyle, Licensed Professional Counselor, MA, LPC, CART, of Heal to Thrive, LLC, provided some insight into the

possible reasons why some people consume energy drinks. Ms. Boyle's practice includes a nutritional aspect in which she sees clients who may unknowingly have nutritional deficiencies that are increasing their physical and/or mental health issues by not having the needed nutrients for their body's systems to naturally regulate themselves. This can drain energy levels, increase anxiety, foggy thinking, poor sleep habits, and cause difficulty in our managing emotions. Why is there a "need" for an energy drink? The standard answer might be, "When I feel really tired, it gives me the energy boost that I need to keep going." According to Ms. Boyle, first and foremost, we must understand the reasons "why" we are feeling so tired and need an energy drink to boost our energy in the first place. Are we doing

that based on research conducted by the National Center for Contemporary and Integrative Health, drinkers aged 15 to 23 who mix alcohol with energy drinks are four times more likely to binge drink at high intensity (i.e. consume six or more drinks per binge episode) than drinkers who do not mix alcohol with energy drinks. Furthermore, research indicates that energy drink consumption can alter maturation levels among children. The research also found that drinkers who mix alcohol with energy drinks are more likely than drinkers who do not mix alcohol with energy drinks to report unwanted or unprotected sex, driving drunk or riding with a driver who was intoxicated or sustaining alcohol-related injuries. Ms. Boyle also pointed out that people who combine caffeinated drinks with alcohol may

Reported health issues attributed to energy drink usage include:

- ▲ Cardiac arrest
- ▲ Cardiac arrhythmia
- ▲ High blood pressure
- ▲ Increased anxiety
- ▲ Migraines and headaches
- ▲ Panic attacks
- ▲ Sleep disorders
- ▲ Type II Diabetes
- ▲ Addiction
- ▲ Higher risk behaviors
- ▲ Increased nervousness
- ▲ Toxicification of the body (vomiting, dehydration, teeth issues, esophagus irritation)

Yet, energy drinks are big business in the United States and abroad. Having enough energy to make it through the day has peaked consumer interest in the energy drinks and energy shots market, which is steadily growing according to experts. The energy drink market saw sales of nearly \$11 billion in multi-outlets for the 52 weeks ending May 20, 2018, a 4.1 percent increase over the prior-year period, according to data from Chicago-based Information Resources, Inc. (IRI). Energy shots, however, appeared to be declining and experienced a 4.1 percentage-point contraction and sales of just a bit over \$1 billion for the same period based on IRI data.

You may ask yourself, "There has got to be a better way?" Well, actually, there is! But, again, proceed with caution!

There are "natural" alternatives sold in the marketplace in cans that contain such "natural" ingredients as yerba mate, guarana and acai juice, just to name a few. These products have become quite popular in the United States. However, keep in mind that some "natural" ingredients are also sources of caffeine, but the word caffeine is not shown on the label.

Next, let's turn to "natural" supplements purported to increase energy levels. There are perhaps hundreds of energy supplements on the market today. Promises can range from giving a "burst" of energy to better concentration. Be aware that



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too much? Is there not enough “balance” in our lives? Are we practicing good nutrition, or are we suffering from nutrient deficiencies we may not even be aware of? Are we not sleeping enough? If not, why aren't we getting enough sleep? Could some prior life experience be truly affecting us to the extent that our mental and/or physical health is impacted, resulting in anxiety, thus not allowing us to relax and sleep?

Ms. Boyle emphasized the need to find some answers. Relying on energy drinks to give us the energy to “get through the day,” or as some younger energy drinkers do, to achieve a “high,” is a serious problem that has some serious repercussions. Mixing alcohol or other stimulants with energy drinks can exacerbate the harmful effects. She pointed out

not be able to tell how intoxicated they really are; they may feel less intoxicated than they would if they had not consumed that energy drink, but, their motor coordination and reaction time may be just as impaired.

But, what about those of us who don't mix alcohol with our energy drinks? Aren't we safe from any harmful effects?

The answer is a resounding, “no!” What about mixing energy drinks with “over-the-counter” medications or prescription medications? Ms. Boyle cautioned that interactions between the contents of energy drinks and these medications, or other products that we are currently ingesting, could potentially cause severe adverse reactions. In fact, the list of adverse reactions to energy drinks is long, and frankly, a bit scary.

not all-natural energy supplements are created equal. Consequently, the public can be misled regarding the choice of supplements, particularly, on the Internet. Such “natural” supplements may contain unnecessary “fillers,” which are not beneficial to the human body.

The Encyclopedia Britannica defines “chemical energy” as “Energy stored in the bonds of chemical compounds.” Mitochondria are the energy producing power plants within our cells. According to Dr. Cross, real chemical energy allows the body to stay more alert, focused and energetic, which is, of course, what everyone wants! Could it be possible that the way to avoid energy drink usage is to find some healthy ways to increase energy within our own bodies?

Some healthy ways to help us have more “chemical” energy naturally include:

- ▲ Control stress
- ▲ Lighten the load (work/life balance)
- ▲ Exercise
- ▲ Avoid smoking
- ▲ Eat a nutritious diet – cut out the fast food!
- ▲ Limit alcohol
- ▲ Drink water
- ▲ Get some sleep—figure out what is the right amount for you!
- ▲ Increase magnesium in-take

If you feel you need supplements for energy, pick the right ones! Furthermore, make sure the supplements you choose are independently tested by third-party laboratories to ensure quality.

But, how do you pick the right supplement that contains the right ingredients? Besides being a chemist, Dr. Cross is also an entrepreneur and has founded Genesis BioHealth out of not only his passion for health and optimal nutrition, but also, because he needed to design a product he liked better than what he found on the market.

It all started one day in April 2014 when Dr. Cross happened across an article dealing with calcification and the newly discovered mechanisms and biochemistry of Vitamin K2. Dr. Cross has an extensive background in biochemistry with many peer-reviewed published works and has sat on the Jury Panel for the ACS journal, “Biochemistry.” Dr. Cross was intrigued by the article. Could he, like so many

others he knew, be suffering from a Vitamin K2-MK4 deficiency?

There has long been a rivalry between users of the K2-MK4 variety and the K2-MK7 variety, which is commonly sold in stores. After conducting in-depth research, the ramifications of a deficiency of this primary nutrient—K2-MK4—began to sink in.

Dr. Cross used his knowledge of biochemistry and, consequently, developed a line of supplements entitled Regenesis and Regenesis+. A proprietary blend of Magnesium and Magnesium+ products are used as fillers for the Regnesis and Regenesis+ products respectively, which contain Vitamin K2-MK4. In addition, the company has developed Regenesis DA and Regenesis+ DA, which offer the complete mixture of vitamins K2, A, D3 and magnesium. The “+” products also contain calcium in a nearly 1:1 ratio with magnesium.

By mixing and matching products, there are many combinations of nutrient

dosage ratios a customer can use. These supplements are intended to provide a support system for a well-regulated metabolism by boosting chemical energy to provide essential bodily ingredients to more fully activate hormones, enzymes and neurotransmitters. And there is more! People still get a great night’s sleep with no rebound effects, or crashing, often found with stimulant energy drinks. More importantly, since Regenesis products deliver real chemical energy, rather than stimulation, the available energy allows the body to invest in itself, even after people work hard all day. This is because enough energy is left over to invest in cellular repair.

The bottom line is this—we have choices about what we put in our bodies. Will we choose energy drinks for a stimulant-induced quick energy fix, or a natural, high-quality product designed to promote chemical energy and truly invest in our bodies for the long-term? Will we make the effort to discover the possible underlying

causes for our lack of energy as Ms. Boyle recommends? Will we take the time and effort to cook nutritious meals using healthy ingredients? Will we use our increased awareness of the potential harmful side effects of energy drinks to our advantage and avoid them ourselves, protect our children from them and find a healthier way? Will we truly “invest” in ourselves, or will we invest, instead, in the billion-dollar business of energy drinks?

It’s all up to you. What will you choose? **N**

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