Hidden Dangers of Energy Drinks

By: Marijke Durning, RN

Life should be simple: you wake up, work and play hard all day, eat a healthy dinner, get a solid eight hours of shut-eye, then wake up rejuvenated and do it all again.

It seems like a solid plan, but for many people it doesn’t quite work like that. They stay up too late with work, social engagements or Jay Leno. Perhaps their partner snores, or there’s a newborn in the house or a sick child. Whatever the reason, they drag themselves from bed in the morning dazed and confused, moving through the day in a fog.

If this describes you, then you’ve probably been tempted to try one of the many energy drinks that have taken the beverage market by storm.

According to the Centers of Disease Control (CDC), there are currently more than 25 different brands of energy drink on the American market, with names such as Red Bull, Full Throttle, and Monster Energy. Using extreme tag lines like “gives you wings” or more realistic ones like “makes you more alert,” these drinks are being marketed directly to people looking for an instant pick-me-up, no matter the reason.

Caffeine Loaded
According to a review published in the February 14, 2011 edition of the medical journal, *Pediatrės*, researchers found that there is an average of 70-80 mg of caffeine in 8 ounces (one small can) of an energy drink. Compared to an 8 oz generic cup of brewed coffee (95-300 mg caffeine) or an espresso (40-75 mg caffeine), this amount may seem a conservative dose.

It is important to point out, however, that it is double what is contained in a can of Coca Cola Classic and considerably more than a can of Mountain Dew.

Labels May Be Deceiving
The amount of caffeine listed on the container may not be entirely upfront about how much caffeine your drink contains. Energy drink additives such as guarana also have caffeine. Guarana contains 40-80 mg of caffeine per gram, and the half-life (how long it remains active in your system) can be longer than straight caffeine. Since this ingredient is not listed as caffeine, your total consumption is much higher than the label suggests.

If caffeine isn’t a big issue for you, consider what else guarana contains: theophylline and theobromine. Theophylline is an ingredient often found in rescue medications for people with asthma, and theobromine can affect your heart rate.

Other Ingredients
Energy drinks may also include:

- Taurine: may be used to treat congestive heart or liver failure
- L-Carnitine: may be used for certain heart diseases or diabetic neuropathy, among other illnesses
Ginseng: may lower or control blood pressure
Yohimbine: may be used for chest pain, complications of diabetes, or depression (among other illnesses)

Many of the drinks are also high in sugar, although there are some sugar-free products available. One of the concerns about the sugar, aside from the obvious, is its combination effect when consumed with caffeine in large amounts. According to *Pediatrics*, the combination could prolong higher blood sugar levels.

**The Dangers of Energy Drinks**

People consume energy drinks to be energized. But for your body to be more awake, your internal systems must be stimulated, made to work harder. If you consume the “recommended” amounts, dangerous side effects can be minimized. Unfortunately, many people believe that if some is good, more must be better.

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Hidden Dangers of Energy Drinks

Caffeine and the other stimulants can cause several unpleasant effects, such as:

- Rapid and/or irregular heart beat or palpitations
- Anxiety
- Seizures
- Cerebral edema (swelling of the brain)
- Abdominal pain
- Nausea and vomiting

Ginseng may cause, among others:

- Nausea and vomiting
- Diarrhea
- Vertigo (dizziness)
- High blood pressure
- Stevens-Johnson syndrome, a severe skin disorder

In late 2010, the American Association of Poison Control began tracking overdoses of energy drinks. In the last three months of the year, there were 677 reported cases, according to an MSN news report.

Germany has been tracking the complications and bad outcomes of energy drinks since 2002. They have reported cases of liver and kidney damage, psychotic events, heart disruptions (even heart failure) and seizures, among other issues.

Energy Drinks and Alcohol

Very often people – particularly teens and young adults – mix energy drinks with alcohol. The review mentioned above looked at a study of 496 college students who regularly consumed energy drinks. In that group, 54 percent combined them with alcohol, and 49 percent admitted to drinking three or more while partying.

People who combine the energy drinks and alcohol enjoy the feeling of being stimulated along with the effects of alcohol. However, this combination can be – and has been – a lethal cocktail. Since both alcohol and caffeine act as diuretics, they cause fluid loss through urination, so you become very dehydrated, very quickly. As well, the stimulant/alcohol mix causes people to feel less drunk than they are, encouraging increased alcohol consumption, possibly resulting in alcohol poisoning, and increased risky behaviors because of wakefulness.

So, Why Have Energy Drinks?

Energy drinks do not contain any prohibited substances. Caffeine is consumed around the world, as is sugar and many of the ingredients found in energy drinks.

The important thing to keep in mind, however, is the concept of moderation and your health. People with health issues such as diabetes or heart disease will likely be advised by their doctors to not drink energy drinks. Their conditions may worsen as a result. But people who are healthy, without any underlying health issues, may be able to consume an average-sized (not super sized!) energy drink.
every so often. After all, everyone can all use a little pick-me-up once in a while.

For a really hilarious and revealing take on the claims some energy drink brands make, check out this commercial for one of the newest entries into the category, Worx Energy:

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