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Caffeine-Stoked Energy Drinks Worry Doctors

By Carla K. Johnson, Associated Press
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CHICAGO (AP) -- More than 500 new energy drinks launched worldwide this year, and coffee fans are probably too old to understand why.

Energy drinks aren't merely popular with young people. They attract fan mail on their own MySpace pages. They spawn urban legends. They get reviewed by bloggers. And they taste like carbonated cough syrup.

Vying for the dollars of teenagers with promises of weight loss, increased endurance and legal highs, the new products join top-sellers Red Bull, Monster and Rockstar to make up a \$3.4 billion-a-year industry that grew by 80 percent last year.

Thirty-one percent of U.S. teenagers say they drink energy drinks, according to Simmons Research. That represents 7.6 million teens, a jump of almost 3 million in three years.

Nutritionists warn that the drinks, laden with caffeine and sugar, can hook kids on an unhealthy jolt-and-crash cycle. The caffeine comes from multiple sources, making it hard to tell how much the drinks contain. Some have B vitamins, which when taken in megadoses can cause rapid heartbeat, and numbness and tingling in the hands and feet.

But the biggest worry is how some teens use the drinks. Some report downing several cans in a row to get a buzz, and a new study found a surprising number of poison-center calls from young people getting sick from too much caffeine.

Danger only adds to the appeal, said Bryan Greenberg, a marketing consultant and an assistant professor of marketing at Elizabethtown College.

"Young people need to break away from the bonds of adults and what society thinks is right," he said. They've grown up watching their parents drink Starbucks coffee, and want their own version. Heart palpitations aren't likely to scare them off.

Most brands target male teens and 20-somethings. Industry leader Red Bull, the first energy drink on the market, is now the "big arena band" of the bunch "teetering on the edge of becoming too big and too corporate," Greenberg said.

"Monster is more of a hard rocker, maybe with a little punk thrown in, much more hardcore," he said. "Rockstar is the more mainstream, glam rock band that's more about partying than playing."

(Monster is produced by Corona, Calif.-based Hansen Natural Corp., and Rockstar, distributed by Coca-Cola Co., is made by Las Vegas-based Rockstar Inc.)

Greenberg said the fierce competition among hundreds of new drinks, with Austria-based Red Bull guarding the biggest market share, leads to a "ratcheting up" of taboo names as companies try to break out from the crowd.

Cocaine Energy Drink, which launched in September and now sells in convenience stores and nightclubs in six states, is the latest example, following a twisted logic set by drinks named Pimpjuice and Bawls.

Hannah Kirby of the Las Vegas company behind Cocaine Energy Drink said Greenberg has it right. Kirby and her husband, Redux Beverage founder James Kirby, wanted to call their drink by the ho-hum name Reboot. That name was taken, so they decided to get provocative.

They're getting the attention they craved, along with some canceled orders. Following complaints from parents, convenience store operator 7-Eleven Inc. recently told franchises to pull the drink from its shelves.

"We knew we would get noticed against a thousand other energy drinks," she said. "We knew kids would find it cool, but we also wanted to stress the idea that it's an energy drink, you don't need drugs." Their slogan is "The Legal Alternative."

The Kirbys are parents of an 18-year-old son, Kirby said. The boy grew up hearing he shouldn't drink energy drinks on a school night.

Red Bull founder Dietrich Mateschitz based his product on tonics sold in Asia. He started selling Red Bull in 1987 in Austria, his native country, and today 2.5 billion cans are sold a year in more than 130 nations. The industry leader grabbed more than 37 percent of the U.S. market last year, according to Beverage Digest.

Rumors have swirled around Red Bull for years. Contrary to hearsay, the ingredient taurine (an amino acid important in making bile to aid digestion) is not made from bull urine, and Mateschitz did not learn about Red Bull from rickshaw drivers in Thailand. The urban legends-debunking Web site www.snopes.com has a page devoted to exposing the false claim that Red Bull contains a banned substance linked to brain tumors.

No evidence was ever found that sudden deaths in Ireland and Sweden were caused by people drinking Red Bull. But it's true that the Swedish government studied energy drinks and recommended they not be used to quench thirst or replenish liquid when exercising. And they should not be mixed with alcohol.

Too late. Anheuser-Busch and Miller Brewing now produce several "energy beers" -- beer containing caffeine. And Red Bull and vodka -- mixed up by bartenders who call it a Friday Flattener or a Dirty Pompadour -- has been popular for a decade. On Red Bull's MySpace page, the product's 11,000 "friends" include alcohol products, which also have their own MySpace pages.

A Brazilian study found college students didn't feel as drunk as they actually were after drinking vodka and Red Bull. Their perception of their coordination and reaction time didn't match objective tests.

The potential for accidents and alcohol poisoning worries Dr. Sandra Braganza, a pediatrician and nutrition expert at the Children's Hospital at Montefiore in New York. As she prepared to write an article about energy drinks for a pediatrics journal, she was surprised how little published research she could find on them.

"The truth is, we don't know what kind of effects these ingredients can have," Braganza said of taurine, glucuronolactone and guarana. "We have to start doing more studies on this."

Earlier this month, a new study found a surprising number of caffeine overdose reports to a Chicago poison control center. These involved young people taking alertness pills such as NoDoz or energy drinks, sometimes mixed with alcohol or other drugs. During three years of reports to the center, the researchers found 265 cases of caffeine abuse. Twelve percent of those required a trip to the hospital. The average age of the caffeine user was 21.

"Young people are taking caffeine to stay awake, or perhaps to get high, and many of them are ending up in the emergency department," said Dr. Danielle McCarthy of Northwestern University,

who conducted the study. "Caffeine is a drug and should be treated with caution, as any drug is."

How much caffeine do energy drinks contain? A University of Florida study found that some products, although served in cans two-thirds the size of a standard can of Coke, contain two to four times the amount of caffeine as that Coke. Energy drinks are unregulated in the United States, but the authors of the University of Florida paper suggest warning labels for them.

And now energy drinks are moving toward bigger cans with some products raising the caffeine content to gain a competitive edge, said John Sicher of Beverage Digest. The biggest, so far, is 24 ounces.

Parents should think twice before sending their children out the door with an energy drink, said Molly Morgan, a dietitian in upstate New York who consults with schools and talks to students, parents and coaches about energy drinks.

"My message to parents is moderation," Morgan said. "That means one can a day or less, and view it as a treat, not part of a daily routine."

Full of sugar and caffeine, energy drinks share the same health problems as soft drinks, she said. But some parents and coaches have bought the message that the drinks can enhance kids' performance in sports and increase concentration in school.

The evidence is weak, involving tiny studies. British research by a scientist who has since received funding from Red Bull found that among 36 volunteers, those who drank the product improved aerobic endurance and recalled numbers better. A British study of 42 people found Red Bull had no effect on memory, but did improve attention and verbal reasoning.

A University of Wisconsin study of 14 students found that two energy drink ingredients, caffeine and taurine, didn't improve short-term memory but led to slower heart rates and higher blood pressure. Since some energy drink ingredients generally speed up heart rates, the researchers could only speculate on the cause.

Carol Ann Rinzler, author of "Nutrition for Dummies," examined the labels of the top three energy drinks.

"The labels simply don't deliver all the facts," she said. "For example, while all list caffeine as an ingredient, and most tell you exactly how much caffeine is in the drink, they also list guarana, a

caffeine source, as a separate ingredient but don't tell how much caffeine one gets from the guarana."

Rinzler said energy drinks also deliver a huge hit of sugar.

"Drink more than one and you get lots of sugar -- 14 teaspoons in two cans, 21 teaspoons in three," she said. Add in megadoses of some vitamins; unnecessary nutrients (taurine) and more caffeine than plain sodas and you get "a fast up-and-down sugar high and a really rough caffeine buzz," she said. "And drinking two or three cans a day for a period of weeks or months might trigger some side effects from the vitamin megadoses."

New brands are appearing at the rate of almost one per day, making it difficult for Denver blogger Dan Mayer to keep up. As a hobby, Mayer reviews each new energy drink he can find. His is not the only energy drink review site, but it's one of the most popular.

"I've reviewed a little over 200 now. For most of these, the companies contact me. I'll find something new at 7-Eleven once in a while, but that's kind of rare," he said.

When Mayer meets an energy drink he doesn't like, his words can sting: "This is the kind of drink that was created by a bunch of rich fat people that have never had an energy drink in their life and really don't understand why this fad is around, they just know they want to be a part of the profit from it."

A Los Angeles company has asked him to design a new drink, but Mayer hasn't quit his day job yet. Pressed to explain the appeal of energy drinks, the 24-year-old spokesman for the buzzed generation said: "It's Starbucks for kids. With the tons of caffeine they put into these things, it gives you a little legal form of speed essentially."