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Classification

Each essay in this chapter uses classification to get its main point across. As you read these essays, consider how they achieve the four basics of good classification that are listed below and discussed in Chapter 14 of this book.

Four Basics of Good Classification

- 1 It makes sense of a group of people or items by organizing them into useful categories.
- 2 It has a purpose for sorting the people or items.
- 3 It uses a single organizing principle.
- 4 It gives detailed examples or explanations of the things that fit into each category.

James Hamblin

How Much Caffeine before I End Up in the ER?

James Hamblin, MD, trained in residency in the Harvard, Northwestern, and UCLA medical systems, although he currently works in media. Now he enjoys doing stand-up and improvisational comedy. His work has appeared on National Public Radio and in *Salon*, the *Los Angeles Times*, and the *Atlantic*.

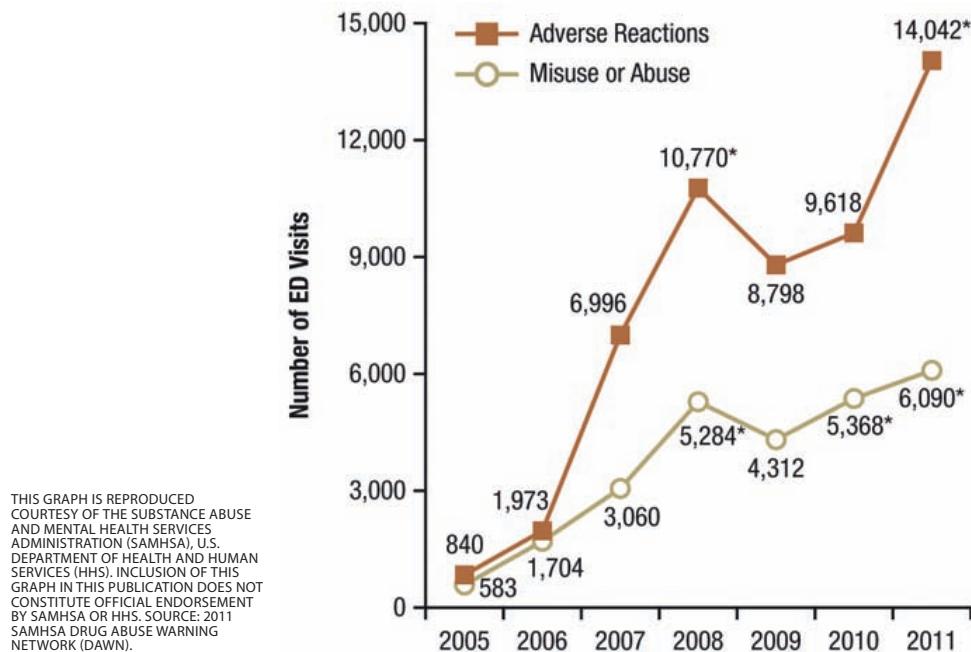
Guiding question In 2005, fewer than 2,000 trips to U.S. hospital emergency departments involved energy drinks. By 2011, that number was over 20,000. If energy drinks are safe, why are they sending us to the hospital?

Pause How dangerous do you believe energy drinks might be? What do you think the danger may be?

1 The Substance Abuse and Mental Health Services Administration (SAMHSA, a government behavioral health agency) issued a report on Friday that called energy drinks “a continuing public health concern.” Yes, energy drinks like Red Bull, 5-Hour Energy, Monster, Full Throttle, CHARGE!, Neurogasm, Hardcore Energize Bullet, Facedrink, Eruption, Crakshot, Crave, Crunk, DynaPep, Rage Inferno, SLAP, and even good old Venom Death Adder.

2 Everything is a public health concern, though, really. How publicly concerned should we be about energy drinks?

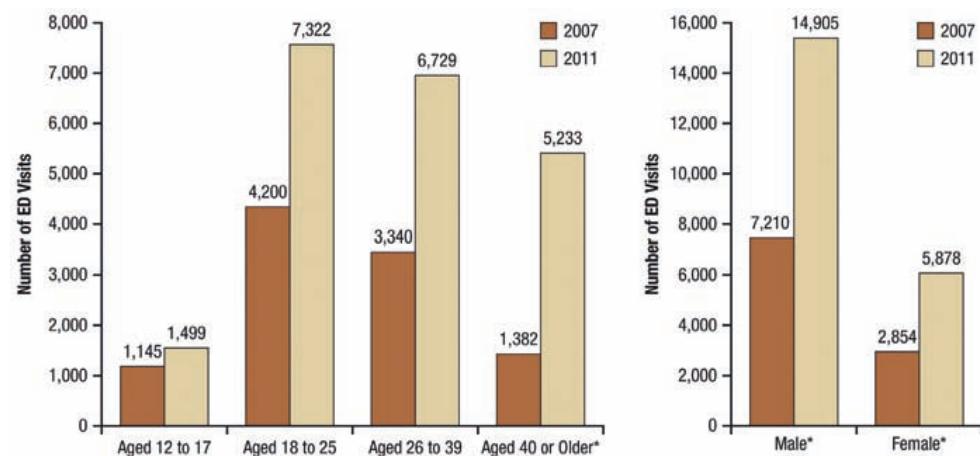
3 First off, the data from the SAMHSA report looks alarming. It tells us that the number of “energy drink-related” emergency department (ED) visits increased nearly tenfold between 2005 and 2011:



4 Energy drinks are not-uncommonly used along with alcohol and other drugs, so SAMHSA (say it aloud once, it’s calming) makes the distinction that, of the 20,783 ED visits in 2011, 58 percent involved energy drinks alone; the remaining also involved other drugs.

5 The rise suggests an increasing propensity for abuse, though, given the rapidly increasing prevalence of energy drinks in the market since 2005 (now a \$101 billion industry), probably a similar percentage of consumers are misusing them and/or having adverse reactions.

6 Those consumers are more commonly men, and most commonly 18–25-year-olds—though the over-40 demographic is growing the most rapidly, by degrees (up 379 percent between 2007 and 2011).



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7 Why are these drinks sending people to the emergency room? The only ingredient(s) in common energy drinks that have been proven to have acute stimulant effects are **caffeine and guarana** (which SAMHSA defines as “a plant product containing concentrated caffeine”). The vitamins and amino acids that many drinks include shouldn’t give you a noticeable burst of energy unless you were previously malnourished and vitamin-deficient. And they’re not reasoned to play a role in intoxication effects.

8 So, essentially, energy drinks can be looked at as caffeine. And as the SAMHSA report puts it, “Large amounts of caffeine can cause adverse effects such as insomnia, nervousness, headache, fast heartbeat, and seizures that are severe enough to require emergency care.”

9 How much is a “large amount” of caffeine? Like alcohol, it’s relative to metabolism and tolerance. Most people can tolerate a lot. In caffeine-modified electroconvulsive therapy, for patients with depression, up to 2,000 mg has been given—intravenously. But that’s in a controlled hospital environment where they are *trying* to give people seizures. And it does increase the likelihood they will have a seizure. For a frame of reference, SAMHSA notes, “The total amount of caffeine in a can or bottle of an energy drink varies from about 80 to more than 500 mg, compared with about 100 mg in a 5-ounce cup of coffee or 50 mg in a 12-ounce cola.”

10 Those examples are a little misleading, though. The Center for Science in the Public Interest (CSPI) has a great list of how much caffeine specific foods/drinks contain. For energy drinks, “more than 500 mg” is far from the norm:

Pause Why are the numbers of those who have visited the emergency department because of energy drinks highest for young men (ages 18–25 and 26–39)? Also, why did the number jump so high between 2007 and 2011 for men over 40?

Pause Have you heard of guarana? Many times it’s billed as a natural herb that may have positive effects. What other herbs or natural ingredients can you think of that are in your drinks or food? Look them up and see what they actually are. Are they good for you?

Energy Drinks	Serving Size	Caffeine (mg)
5-hour Energy	1.9 fl. oz.	208
Full Throttle	16 fl. oz.	200
Monster Energy	16 fl. oz.	160
Rockstar	16 fl. oz.	160
AMP Energy Boost Original	16 fl. oz.	142
Red Bull	8.4 fl. oz.	80
V8 V-Fusion+Energy	8 fl. oz.	80
Ocean Spray Cran-Energy	20 fl. oz.	55
Glacéau Vitaminwater Energy	20 fl. oz.	50

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11 Cran-Energy is a thing, yes.

12 And the 50 mg that SAMHSA cites for a “cup of coffee” is pretty optimistic—at least in the way that many of us define coffee.

Coffees	Serving Size	Caffeine (mg)
Dunkin' Donuts Coffee with Turbo Shot	large, 20 fl. oz.	436
Starbucks Coffee	venti, 20 fl. oz.	415
Starbucks Coffee	grande, 16 fl. oz.	330
Panera Frozen Mocha	16.5 fl. oz.	267
Starbucks Coffee	tall, 12 fl. oz.	260
Starbucks Caffè Americano	grande, 16 fl. oz.	225
Panera Coffee	regular, 16.8 fl. oz.	189
Starbucks Espresso Frappuccino	venti, 24 fl. oz.	185

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Coffees	Serving Size	Caffeine (mg)
Dunkin' Donuts Coffee	medium, 14 fl. oz.	178
Starbucks Caffè Mocha	grande, 16 fl. oz.	175
Starbucks Iced Coffee	grande, 16 fl. oz.	165
Maxwell House Ground Coffee—100% Colombian, Dark Roast, Master Blend, or Original Roast	2 Tbs., makes 12 fl. oz.	100-160
Dunkin' Donuts Cappuccino	large, 20 fl. oz.	151
Starbucks—Caffè Latte, Cappuccino, or Caramel Macchiato	grande, 16 fl. oz.	150
Starbucks Espresso	doppio, 2 fl. oz.	150

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13 Still, despite the fact that a Starbucks venti coffee has three times as much listed caffeine as a can of Monster, some people swear they're more wired after drinking an energy drink. That may be because of the extra caffeine in guarana. Energy drinks can advertise that they have the same amount of caffeine as a cup of coffee; but when you include guarana, they have a much stronger stimulant effect. In Australia, listing quantified guarana content on beverages is mandatory.

14 The most interesting implication that the report mentions is from a study in which “bar patrons who consumed alcohol mixed with energy drinks were . . . four times more likely to intend to drive while intoxicated.” Because, as SAMHSA puts it, “Individuals, especially young drinkers, may incorrectly believe that consumption of caffeine can ‘undo’ the effects of alcohol intake and make it safe to drive after drinking.”

15 That sort of stimulant-empowered bullheaded behavior—rather than the ER admissions for caffeine-induced anxiety—is actually the most pressing public health concern.

16 So, caffeinate responsibly. “If I drink another Hardcore Energize Bullet, am I going to have to go to the hospital again?”

SUMMARIZE AND RESPOND

Summarize the main idea of “How Much Caffeine before I End Up in the ER?” Then, go back and check off support for this main idea. Next, write a brief summary (three to five sentences) of the essay. Finally, jot down your initial response to the reading. Have you ever considered the effects of caffeine? How much of an impact on health do you think it has?



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