

3. Read the text, highlighting important information or taking notes.
4. In your own words, list the points of each relevant section. Try to write a one-sentence summary of each.
5. List the key support points for the main topic, and include minor details if necessary.
6. Make sure your notes reflect the strength of the claims or conclusions.
7. Write your reactions or thoughts about the sections you have identified as important. (Keep in mind that information from sources should support, but not become or be offered instead of, your own interpretation and explanation.)
8. Go through the process again. Read the text several times if necessary, making changes to your notes as appropriate.

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## ASK ONE

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Let's say you have been asked to write a paper in Public Health that examines the consumption of energy drinks such as Red Bull, Lipovitan-D, and Cobra. You come across this article and want to use it to support your claim that these drinks are potentially harmful and should be closely regulated. Underline the information you might borrow to support your perspective. Be prepared to discuss your choices.

### **Caffeinated Energy Drinks—A Growing Problem**

Reissig, C. J., Strain, E. C., and Griffiths, R. R. (2009).

*Drug and Alcohol Dependence*, 99, 1–10.

- ① In 2006, annual worldwide energy drink consumption increased 17% from the previous year to 906 million gallons, with Thailand leading the world in energy drink consumption per person, but the U.S. leading the world in total volume sales (Zenith International, 2007).
- ② Although "energy drinks" first appeared in Europe and Asia in the 1960s, the introduction of "Red Bull" in Austria in 1987 and in the U.S. in 1997 sparked the more recent trend toward aggressive marketing of high caffeine content "energy drinks."
- ③ Since its inception, the energy drink market has grown exponentially, with nearly 500 new brands launched worldwide in 2006

(Johnson, 2006), and 200 new brands launched in the U.S. in the 12-month period ending July 2007 (Packaged Facts, 2007). ④ From 2002 to 2006, the average annual growth rate in energy drink sales was 55% (Packaged Facts, 2007) (Fig. 1). ⑤ The total U.S. retail market value for energy drinks (from all sources) was estimated to be \$5.4 billion in 2006 and has shown a similar annual growth rate over this same period (47%) (Packaged Facts, 2007). ⑥ These drinks vary widely in both caffeine content (ranging from 50 to 505 mg per can or bottle) and caffeine concentration (ranging from 2.5 to 171 mg per fluid ounce) (Table 1). ⑦ For comparison, the caffeine content of a 6 oz cup of brewed coffee varies from 77 to 150 mg (Griffiths et al., 2003). ⑧ The main active ingredient in energy drinks is caffeine, although other substances such as taurine, riboflavin, pyridoxine, nicotinamide, other B vitamins, and various herbal derivatives are also present (Aranda and Morlock, 2006). ⑨ The acute and long-term effects resulting from excessive and chronic consumption of these additives alone and in combination with caffeine are not fully known. ⑩ Although the full impact of the rise in popularity of energy drinks has yet to be realized, the potential for adverse health consequences should be considered and may be cause for preemptive regulatory action.

Figure 1. Energy Drink Sales in the U.S. 2002–2006

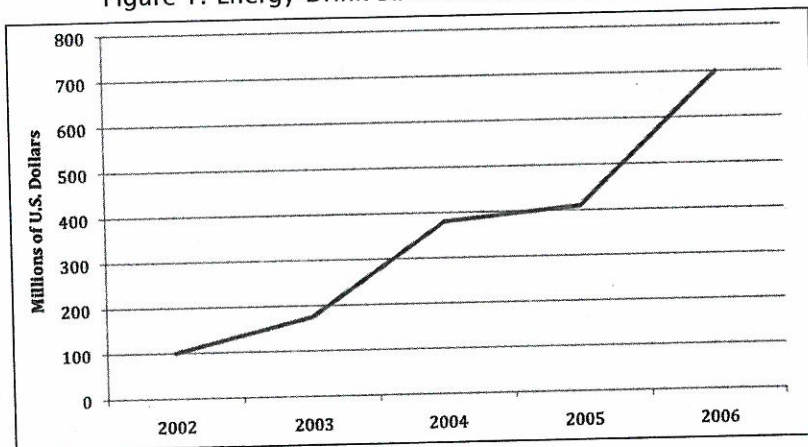


Fig. 1. Data are based on scanner data from over 32,000 stores such as supermarkets, drug stores, and discount merchandisers other than Wal-Mart. Data are from retailers with \$2 million or more in annual sales but exclude: clubstores/warehouse clubs, convenience stores, dollar/variety stores, food service, vending, concession sales and specialty channels/retailers of all types (e.g., gourmet/specialty food stores, hardware/home improvements stores, military exchanges). (Based on data from Packaged Facts, 2007.)

Table 1. Caffeine in Energy Drinks (United States)

	Ounces per Bottle or Can	Caffeine Concentration (mg/oz)	Total Caffeine (mg)
Top selling energy drinks*			
Red Bull	8.3	9.6	80.0
Monster	16.0	10.0	160.0
Rockstar	16.0	10.0	160.0
Amp	8.4	8.9	75.0
Tab Energy	10.5	9.1	95.0
Higher caffeine energy drinks**			
Wired X505	24.0	21.0	505.0
Fixx	20.0	25.0	500.0
Bookoo Energy	24.0	15.0	360.0
SPIKE Shooter	8.4	35.7	300.0
Cocaine Energy Drink	8.4	33.3	280.0
Lower caffeine energy drinks**			
Bomba Energy	8.4	8.9	75.0
HiBall Energy	10.0	7.5	75.0
Vitamin Water (Energy Citrus)	20.0	2.5	50.0
High concentration energy drinks**			
RedLine Power Rush	2.5	140.0	350.0
Ammo	1.0	171.0	171.0
Powershot	1.0	100.0	100.0
Fuel Cell	2.0	90.0	180.0
Classic soft drinks			
Coca-Cola Classic	12.0	2.9	34.5
Pepsi Cola	12.0	3.2	38.0
Dr Pepper	12.0	3.4	41.0
Mountain Dew	12.0	4.5	54.0

\* Top selling energy drinks in the U.S. 2006, listed sequentially as a percentage of market share (based on data from Packaged Facts, 2007).

\*\* Examples of energy drinks drawn from the hundreds of energy drink products currently marketed in the U.S., listed sequentially on total caffeine content.

Data on drink volume and caffeine content were obtained from the manufacturer via product label, website, or personal communication with manufacturer representatives. The one exception was that the caffeine content for Bookoo Energy was obtained from the energyfiend website (Energyfiend website, 2008).

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