

## Common Stimulants and Their Effects

What is a stimulant? A stimulant is typically a drug that is used to increase alertness, awareness, and the heart rate.

**Caffeine** is the most widely used drug in the world. It's a physically addictive stimulant that is naturally produced in the leaves, seeds and fruits of many plants. Commonly found in coffee, tea, soft drinks, chocolate and a wide variety of over-the-counter medications, it is legal and easily accessible.

Caffeine affects everyone in similar ways. Like all stimulants, caffeine raises blood pressure and its effects range from mild alertness to heightened anxiety and body tension. In moderate doses it can produce "coffee jitters", headaches, disorientation, and insomnia. Regular users who suddenly stop consuming caffeine may experience withdrawal symptoms including drowsiness, headaches, irritability, nausea and vomiting and depression.

Caffeine has health risks for certain users. Small children are extremely sensitive to caffeine. Caffeine can aggravate heart problems or nervous disorders, and some teens may not be aware that they are at risk. Healthcare providers recommend that people should consume no more than about 100 milligrams of caffeine daily.

**Ephedrine** is also a stimulant and can be found in energy drinks in addition to caffeine. The herb ma huang contains ephedrine which is the ingredient used in energy drinks.

Excessive doses of ephedrine may cause a sharp rise in blood pressure sufficient to produce cerebral hemorrhage. Other effects may include headache, restlessness, anxiety, tension, tremor, weakness, dizziness, confusion, delirium hallucinations, respiratory difficulty, palpitation (abnormal heart beats), sweating, nausea or vomiting.

Now, consider the fact that these two stimulants are combined in several of the energy drinks that are sold in stores today.

### Lesson Review:

Answer the following questions in complete sentences and on a separate sheet of paper.

1. What is a stimulant?
2. What are some health risks of caffeine?
3. What is ma huang and how is it used?
4. Explain what you think happens to the body when energy drinks and exercise is combined. (Consider heart rate, blood pressure and some of the other side effects of stimulants. Also, think about what happens to the body during exercise.)