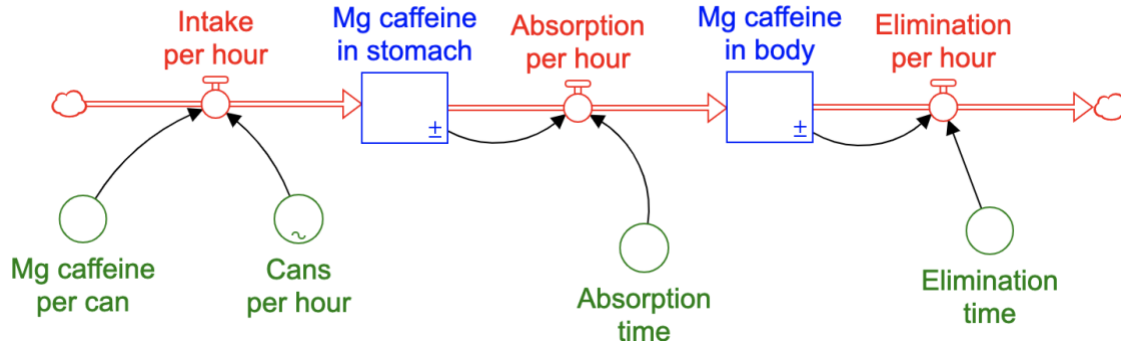


Micro Lesson: Thinking about Energy Drinks from *Model Mysteries*¹

Energy drinks can be a quick way for people to increase alertness and energy in the short term, e.g., to study for a test or to complete a long, endurance drive. Caffeine in these drinks can also stay in the body for longer than you might think. This simple model can help you [explore](#)² how different choices affect caffeine levels in the body over a 24 hour period.



INSTRUCTIONS (after opening the model)

Imagine that you consume one energy drink per hour for three hours, then don't drink any more after that. Push the "play" button at the bottom to get started. Using the "dial" on "Mg caffeine per can" and the key below, experiment by changing the number on the dial to match the different brands.

Energy Drink	Size (in ounces)	Milligrams Caffeine
Archer Farms Energy Drink	12	100
Cola (typical brands)	12	40
Jolt Cola Energy Drink	23.5	280
Monster Energy Drink	16	160
Red Bull	8.46	80
Rock Star Sparkling Energy	16	160
10-Hour Energy Shot	1.93	422

To explore with this model further, save a copy to your own isee account. To get instructions on how to get your own isee account, to access/order the book, or to learn more about how to use this model and many others, click [here](#)³.

Questions/ideas to consider:

1. How much longer does it take for the caffeine to be eliminated if you drink a 10-hour Energy Shot in comparison to a cola?
2. What happens in the stomach in comparison to in the body?
3. Why might this be important to understand when making decisions about how many cans to drink?
4. Consider researching other effects of high levels of caffeine on the body, both in the short and long term.

¹ *Model Mysteries: An Exploration of Vampires, Zombies and Other Fantastic Scenarios to Make the World a Better Place*, Anne LaVigne and Lees Stuntz in collaboration with the Creative Learning Exchange

² https://exchange.iseesystems.com/models/player/creativelearningexchange/mm2-1_energy

³ <http://www.clexchange.org/curriculum/modelmysteries/>