The Energy Drink Buzz

Developed by Registered Dietitians
Nutrition Services
Alberta Health Services
Overview

• What is an energy drink?
• Energy drinks vs. sports drinks
• What’s in an energy drink?
  – Nutrition Facts table
  – Ingredients
  – Caffeine
• Alcohol and energy drinks
• Better energy sources
This presentation features some videos. In the upcoming slides, click on the blue movie icon to watch the video. Internet connection required.
Energy Drinks and You

Do you drink energy drinks?

What are the benefits and drawbacks of drinking energy drinks?
Video: Energy Drinks and Teens

Click on movie icon to start video
What is an Energy Drink?

Energy drinks:

• Are advertised to boost mental and physical energy for a short period of time
• May contain a lot of sugar
• Contain a lot of caffeine
• Do not hydrate our bodies
Pop Quiz

What’s the difference between a sports drink and an energy drink?
Energy Drinks vs. Sport Drinks

**Energy drinks**
- Very high in sugar
- Contain added ingredients that may not be tested
- May cause stomach upset during activity
- Less hydrating
- Contains a lot of caffeine

**Sport drinks**
- High in sugar
- Contain added sodium and potassium
- May help for extended periods of intense exercise
- More hydrating
- Do not contain caffeine
Energy Drinks and Sports Performance

Energy drinks during physical activity can lead to:

- Upset stomach
- Vomiting
- Increased heart rate
- Dehydration
- Muscle cramps
Energy Drinks and Sports Performance

Click on movie icon to start video
Pop Quiz

Are energy drinks safe for everyone?
Caution: Not Safe for Everyone!

Caution statements vary by brand and product – always read labels carefully!

**Caution/Usage:** Do not consume more than 1 can (473 mL) per day. Not recommended for children, women who are pregnant, planning to become pregnant, or breastfeeding, or for caffeine sensitive persons. This product is not intended to replace food or fluid intake. Do not use with alcohol.
What’s in an Energy Drink?

To find out, look at:

**Nutrition Facts table**

**Ingredient list**

**High caffeine content**

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<table>
<thead>
<tr>
<th>Nutrition Facts</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Per can (473 mL)</td>
<td></td>
</tr>
<tr>
<td><strong>Amount</strong></td>
<td><strong>% Daily Value</strong></td>
</tr>
<tr>
<td>Calories</td>
<td>210</td>
</tr>
<tr>
<td>Fat</td>
<td>0 g</td>
</tr>
<tr>
<td>Sodium</td>
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</tr>
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<td>Carbohydrate</td>
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</tr>
<tr>
<td>Sugars</td>
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</tr>
<tr>
<td>Protein</td>
<td>0 g</td>
</tr>
<tr>
<td>Riboflavin</td>
<td></td>
</tr>
<tr>
<td>Niacin</td>
<td></td>
</tr>
<tr>
<td>Vitamin B6</td>
<td></td>
</tr>
<tr>
<td>Vitamin B12</td>
<td></td>
</tr>
</tbody>
</table>

Not a significant source of saturated fat, cholesterol, fibre, vitamin A, vitamin C, calcium or iron

<table>
<thead>
<tr>
<th>High Caffeine Content Contains (per can)</th>
<th></th>
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<tbody>
<tr>
<td>Caffeine</td>
<td>166 mg</td>
</tr>
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</table>

Ingredients: Carbonated water, sucrose, glucose, citric acid, naturally sourced flavours, taurine, sodium citrate, grape skin extract (natural colour), panax ginseng root extract, caffeine, sorbic acid, benzoic acid, niacinamide, sodium chloride, D-glucuronolactone, guarana seed extract, inositol, pyridoxine hydrochloride (vit B6), sucralose, riboflavin (vit B2), maltodextrin, cyanocobalamin (vit B12).
## Nutrition Facts Table: % Daily Value

### What to look for?

% Daily Value tells you if a food has a little (5 %) or a lot (15 %) of a nutrient.

- This energy drink has more B vitamins than you need in one day!
- It is also high in sodium.

### Nutrition Facts

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<td>Riboflavin</td>
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Ingredients: Sugar

Question: How many teaspoons of sugar do you think could be in an Energy Drink (473 mL)?

Answer: 14 teaspoons
Video: Energy Drinks and Sugar

Click on movie icon to start video
Ingredients: Herbs, Vitamins, Amino Acids

Ingredients: Carbonated water, sucrose, glucose, citric acid, naturally sourced flavours, taurine, sodium citrate, grape skin extract (natural colour), panax ginseng root extract, caffeine, sorbic acid, benzoic acid, niacinamide, sodium chloride, D-glucuronolactone, guarana seed extract, inositol, pyridoxine hydrochloride (vit B6), sucralose, riboflavin (vit B2), maltodextrin, cyanocobalamin (vit B12).
Pop Quiz

Why do you think **herbs, vitamins, amino acids**, and other natural health products are added to energy drinks? (Click links to find out)
Herbs

Ginseng
Claim: Provides energy and mental alertness
Reality: Little research to support this claim
Risk: Some people may experience insomnia, anxiety, or headaches

Gingko
Claim: Helps with mental alertness
Reality: Little research to support this claim
Risk: May interfere with blood clotting
Vitamins

B vitamins- Thiamine, Riboflavin, Niacin, Pantothenic Acid, Pyrodoxine (B6), and Cobalamin (B12)

Claim: Energy regulation
Reality: B vitamins are found in many food sources such as meat, whole grains, bananas, and beans
Risk: Very high intake of some vitamins can have negative health effects such as skin rashes
Amino Acids

Carnitine

**Claim:** Increases energy levels  
**Reality:** Most people get enough from food; additional carnitine is not used by the body

Taurine

**Claim:** It regulates energy levels  
**Reality:** Found in meat and meat alternatives and made by our bodies  
**Risk:** Research has not determined the safety of supplementing with these large doses
True or False: One can of an energy drink contains more caffeine than you should have in an entire day?

TRUE
High Caffeine Content

Contains (per 473 mL):
166 mg Total Caffeine, 10 mg Guarana, 2000 mg Taurine, 500 mg Grape Seed Extract, 10 mg Inositol, 400 mg Ginseng, 10 mg D-Glucuronolactone

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<td>Inositol</td>
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Caffeine: Know your limit

• We do not need caffeine
• Less caffeine is better
• Limit for teens is 85 mg - 150 mg per day
• One energy drink can have 180 mg of caffeine

Did you know?
Caffeine is also found in coffee, espresso, hot tea, iced tea, cola, and chocolate.
Caffeine in Your Brain

Brain without caffeine:

Sleep Receptor + Sleep Molecule = Healthy Sleep

Brain with caffeine:

Sleep Receptor + Sleep Molecule = Sleeping problems

Heart rate ↑ Sleep Molecules ↓

Caffeine: increases heart rate and blocks sleep molecules
What are possible side effects from consuming caffeine?
Side Effects of Caffeine

- Increased heart rate
- Cold sweats
- Shakes
- Diarrhea
- Increased urine
- Nausea
- Nervousness
Pop Quiz

What strategies do energy drink companies use that may make their products appealing to teens?
Marketing Strategies

- Bright colors and graphics
- TV, radio and online advertising
- Health claims
- Product placement on social media sites
- Celebrity and professional athlete endorsement
- Sponsor extreme sports
- Easy access → vending machines, convenience stores, recreation centres and sporting events
Pop Quiz

“If you bought one energy drink every day for a year, how much money would you spend?”
Cost Adds Up Quickly

One energy drink each day will cost you…

$ 21.00 each week

$ 90.00 each month

$ 1095.00 each year

*based on average cost of $3.00 a can
Cost Adds Up Quickly

What would you buy with $1095.00?
Energy Drinks Can Lead To…

- Energy crashes
- Dependence
- Cavities
- Less healthy diet
- Wasted money
Video: Energy Drinks and the Crash

Click on movie icon to start video
Energy Drinks and Alcohol

Never mix energy drinks with alcohol

Mixing alcohol and caffeine can increase the chance of being involved in risky situations including:

- overdosing on alcohol
- getting hurt or hurting someone else
- requiring medical attention

Energy drinks do not lower blood alcohol levels but may fool you into thinking you are less drunk.
Video: Energy Drinks and Alcohol

Click on movie icon to start video
Choose Your Fuel

Energy drinks have ingredients that claim to boost energy.

Can you boost your energy through healthy foods and beverages instead?

YES!
Pop Quiz: Choose Your Fuel

Energy drink claim: amino acids boost energy

What are the main food groups that provide amino acids?

Hint: Amino Acids are the building blocks of protein.

Meat & Alternatives

Milk & Alternatives
Pop Quiz: Choose Your Fuel

Energy Drink Claim: B vitamins help regulate energy

What are the main food groups that provide B vitamins?

Meat & Alternatives

Grain Products
Pop Quiz: Choose Your Fuel

Energy Drink Claim: Sugar for extra energy

What are the main food groups that provide carbohydrates?

Grain Products
Vegetables & Fruit
Milk & Alternatives
Choose Your Fuel

Food keeps you fueled!

Choose a balanced diet from the 4 food groups to stay energized

- Vegetables and Fruits
- Grain Products
- Milk and Alternatives
- Meat and Alternatives
Best Energy Sources

Tips for energy all day

• Be active (at least 60 minutes per day)
• Follow Canada’s Food Guide
• Sleep 9-10 hours per night
• Drink enough fluids (9-12 cups)
Conclusion

• Be an informed consumer!
• Energy drinks do not give you any health benefits or lasting energy.
• Keep in mind better choices such as eating a balanced diet, sleep, fluid and exercise.
• Long term safety of energy drink use is unknown.
What Do You Think?

Has your opinion of energy drinks changed?

What choice can you make to improve your energy levels in the future?