

## **ENERGY DRINKS – WHAT YOU NEED TO KNOW/FAQ**

The focus of this literature is to educate parents, coaches, volunteers and players to allow them to make informed decisions regarding "***stimulant containing energy drinks.***" Hockey Nova Scotia has been contacted after parents were observed giving energy drinks to their children prior to games and practices. We expect this was done out because they were unaware and did not understand the negative and dangerous effects energy drinks can have on youth.

A group of beverages known as "energy drinks" are widely available, and are the topic of recent news stories and university studies. We felt it would be helpful to provide parents, coaches, volunteers, and players with more information to allow better informed decisions regarding the use of "***stimulant containing energy drinks.***"

### **ARE ENERGY DRINKS AND SPORTS DRINKS THE SAME?**

No. There is a **BIG** difference between a "sports drink" and an "energy drink." Sports drinks may help replace fluids, sugars, and electrolytes lost during periods of intense exercise (examples include Gatorade and Powerade). Energy drinks should never be used as a fluid replacement, as the high caffeine content can actually mask the signs of dehydration.

Note: The best way to replace lost fluids and prevent dehydration is to drink plain water.

### **WHAT IS AN ENERGY DRINK?**

An energy drink is a highly caffeinated beverage that often contains ingredients such as sugar, artificial sweeteners, other stimulants, amino acids, vitamins, and herbal products. Manufacturers CLAIM these drinks provide an extra boost of energy. This is due to the addition of large amounts of caffeine or other form of stimulant. Energy drinks should never be used as a fluid replacement, as the high caffeine content can actually mask the signs of dehydration.

Health Canada requires that energy drinks carry the following warnings on the label:

- Not intended for children, pregnant or lactating women, or caffeine-sensitive persons
- Not to be mixed with alcohol
- "Do not consume more than x cans per day". (The number of cans varies depending on the serving size.)

Energy drink "shots" are a more concentrated form of energy drink with a high amount of caffeine in a 60-90 mL serving size. These carry the same warnings.

Examples include Red Bull, Monster, Rock Star, Full Throttle, NOS, Amp, SoBe

## **WHAT IS DIFFERENT ABOUT ENERGY DRINKS?**

### **They contain high amounts of caffeine and other stimulants.**

Caffeine is a drug which acts as a stimulant. Energy drinks have more caffeine than other beverages like sports drinks, pop, and fruit-flavoured beverages. Caffeine gives energy drinks the stimulating effect.

#### Common Sources of Caffeine

- Coffee
- Tea
- Energy drinks
- Soft drinks
- Chocolate
- medications

#### Health Canada Recommended Maximum Daily Caffeine Limits

- 4-6 yrs 45mg/day (i.e., equivalent to about one can of regular cola)
- 7-9 yrs 62.5mg/day (i.e., equivalent to about 1.5 cans of regular cola)
- 10-12 yrs 85mg/day (i.e., equivalent to about 2 cans of regular cola)
- Teens (12-18) & Adult 400mg/day

Health Canada sets maximum daily limits on caffeine based upon the risk of health effects and side effects from caffeine.

The amount of caffeine in an energy drink can range from the amount found in 1 cup of coffee (120 – 180 mg) to the amount found in 3 cups or more (e.g. >350 mg). The total amount of caffeine in some cans or bottles of energy drinks is equal to 14 cans of commonly caffeinated beverages, like pop. It is easy for children and teens to exceed the daily maximum caffeine limits with as little as one energy drink.

- 1 can of pop = 36-46mg of caffeine
- 1 cup (250ml) of coffee = 120 – 180 mg of caffeine
- 1 (355 mL) can energy drink = 114 mg caffeine
- 1 (650 mL) container energy drink = 345 mg caffeine

Energy drinks also contain caffeine-like substances, listed on labels as Guarana and yerba mate. Some energy drinks actually have more caffeine and stimulant effect than stated on the label, as these natural sources of caffeine are not always included in the total posted on the label.

#### **What is GUARANA?**

- A natural source of caffeine
- 2 times as strong as caffeine
- 1 gm of GUARANA = 40 mg of caffeine

- Has NOT been evaluated by the Federal Drug Administration for safety and effectiveness
- Warnings are given especially to those who have heart problems, increased blood pressure, hypothyroidism, anxiety, or nervous system disorders

### **They contain other ingredients such as vitamins, amino acids and herbs.**

Most energy drinks have other ingredients added to them such as B vitamins, amino acids (such as taurine) and herbs such as ginseng. Many claims are made about the health benefits of these ingredients, but there is not enough research to show if these claims are true. There is also no research to show that these ingredients are safe for children and teens to consume. Some of the herbal preparations can interfere with prescription drugs. It is important to speak with a health professional to ensure there are no harmful interactions.

### **What is GINSENG?**

- A plant said to improve thinking, concentration memory, work, efficiency and physical stamina
- It is NOT recommended for children or young adults
- Long term effects of use can include – insomnia, increased heart rate, and fluctuation in blood pressure, headache and decreased appetite
- When mixed with caffeine, ginseng is said to speed up the nervous system promoting a “jittery” feeling as well as an increase in heart rate

### **What is TAURINE?**

- An amino acid (building block of protein).
- Found in meat, poultry, fish and dairy products.
- Essential for producing muscle but when a healthy diet is consumed, additional supplementation is not necessary.

### **WHAT ARE THE SIDE EFFECTS OF OVERCONSUMPTION OF CAFFEINE & CAFFEINE LIKE SUBSTANCES?**

Caffeine intoxication is a syndrome associated with excessive caffeine use resulting in a number of symptoms such as nervousness, anxiety, restlessness, excitement, hyperactivity, insomnia and difficulty sleeping, stomach upset, nausea, tremors, heart irregularities, muscle twitches, and headache.

In children and teens with caffeine sensitivity, many of the symptoms can appear at much lower intakes.

Children and teens with depression who consume caffeine have been known to experience greater anxiety. Use of caffeine with prescription medication such as Selective Serotonin Uptake Inhibitors and Attention Deficit Hyperactivity Disorder stimulant medication can have significant and dangerous side effects.



Children and teens who drink caffeine-containing drinks can become dependent upon them, as caffeine is an addictive drug. Children and teens can also experience the effects of caffeine withdrawal (i.e., headache, sleepiness, mood swings, difficulty concentrating, irritability, decreased mental performance, depression, nausea, muscle stiffness/aches) after as little as 150 mg of caffeine per day for a period of weeks.

The side effects of excess caffeine intake and withdrawal can negatively impact young players ability to perform in practices and in games.

### **ARE ENERGY DRINKS SAFE FOR OUR MINOR HOCKEY PLAYERS?**

Energy drinks are not recommended for children and teens because of their high levels of caffeine, and other ingredients. In many cases, one energy drink could have more caffeine than the recommended safe daily intake for many children and teens.

Health Canada has received a number of reports of suspected health problems associated with energy drinks. Symptoms have included irregular heart beat and nervousness. If you suspect a child or teen is experiencing such problems contact a health professional and report the problem to the manufacturer.

## **WHAT DO I NEED TO KNOW TO MINIMIZE THE RISK TO MYSELF, MY CHILD OR TEEN?**

Carefully read the labels of all beverages consumed to see if there are any warnings or limits. Do not mix energy drinks with alcohol. Do not use energy drinks to replenish fluids after exercise. If you, a child, or teen have an adverse reaction, report it to a health professional or Health Canada 1-866-234-2345 or <http://www.hc-sc.gc.ca/dhp-mps/medeff/report-declaration/index-eng.php>

## **HOW ARE ENERGY DRINKS MARKETED TO CHILDREN AND TEENS?**

- The popularity of energy drinks has been on the rise since 1997 when they were first introduced onto the market and have since grown into a multibillion dollar business.
- Energy drinks are now the “fastest growing segment in the beverage industry since bottled water” (Heckman, Sherry and Gonzalez de Mejia, 2010).
- Initially the target market was 18-34 year olds however now this age group is trickling down to ages well below 18 - meaning your young ATHLETE.
- Markets strategies for energy drinks boast of increased energy, decreased fatigue, enhanced concentration and mental alertness which is leading to intentional use.
- Energy drinks are often advertised along with extreme sports and music on Facebook, Twitter, television, radio, internet and in print.
- Energy drink companies sponsor extreme athletes, sports teams, and events worldwide. Free samples of drinks are distributed to coaches, athletes, and spectators.
- Why? Intentional use of energy drinks by adolescents who desire stimulant effects to combat fatigue and increase energy during sports/school activities.

## **WHAT WE CAN DO TO HELP?**

- We need to educate youth, parents, coaches and volunteers in the area of energy drinks – highlighting the risks.
- Understand that energy drinks pose a risk to health mostly due to their stimulant content.
- Stress that healthy energy levels can be maintained by general, basic principles of good nutrition.
- Promote water as the beverage of choice for hydration, as water controls body temperature, replenishes fluids after exercise, keeps working muscles cool, and acts as a lubricant for muscles and joints.