

# DID YOU KNOW?

## Energy Drinks (ED)

March 2023

### Contextualisation:

The purpose of this leaflet is to help clients, where necessary, become more aware of the risks associated with the consumption of energy drinks (ED) and thus enable them to make informed choices about the consumption of energy drinks.

In addition, through our role in the CRD, to initiate a reflection on our own habits regarding the consumption of energy drinks in the context of intervention.

### Contents of energy drinks

- Caffeine is classified as a central nervous system (CNS) stimulant and is the most widely consumed legal substance in the world<sup>1</sup>.
- It is found in soft drinks (e.g. Mountain Dew, Coca-Cola), chocolate, tea and some medicines.

It should be noted that "regardless of age group and medical condition, daily caffeine intake above the recommended limits may eventually lead to symptoms of acute caffeine intoxication, ranging from nausea, followed by vomiting, to convulsions or serious heart problems<sup>2</sup>."

In addition, consumption of 600 mg per day can lead to physical dependence after only 6 to 14 days of consumption<sup>3</sup>.

A 300 mg dose of caffeine increases the sleep onset time (amount of time needed to fall asleep) by 18 to 66 minutes and reduces the total sleep time from 475 to 350 minutes. *Note that sensitivity to caffeine can vary greatly from one individual to another<sup>4</sup>.*

Of course, the aim is not to demonise caffeine, but to recognise some of its dangers, particularly if it is overused.

<sup>1-2-5</sup> L. Plamondon et coll. (2013), TOPO : Les boissons énergisantes : entre menace et banalisation. Développement des individus et des communautés. Santé environnementale et toxicologie, numéro 6. INSPQ.

<sup>3-4</sup> Ben Amar et Léonard (2002), Les psychotropes, pharmacologie et toxicomanie

**Other ingredients can also be found, for example** (NOTE: these can vary from one energy drink to another):

- **Guarana:** A bean with a caffeine concentration two to three times higher than that of coffee<sup>5</sup>.
- **Taurine:** An amino acid, much research is underway to understand the role of this protein<sup>6</sup>.
- **Ginseng:** Plant root, CNS stimulant, invigorating for the body. Promotes physical activity by increasing stamina and concentration<sup>7</sup>.
- **Large quantities of sugar and minerals**

**To remember:** "According to the available scientific literature, the potential effects of consuming these drinks are mainly related to their caffeine and sugar content. As for the other ingredients, the levels present in energy drinks seem to induce few short-term adverse effects<sup>8</sup>."

"Energy drinks are designed to be consumed cold and quickly. Thus, the effects of the caffeine they contain are felt much more quickly than with coffee, which is usually served hot and drunk more slowly<sup>9</sup>."

### What attracts young customers: target market

Attractive names and slogans for young customers (e.g. Monster, Rockstar, Redbull: Gives you wings...). Influencers on social media, production and distribution companies revere the effects of ED. For example, according to Plamondon et al (2013): "Reasons reported in the published literature include: to stay awake, to get a boost of energy, to be more motivated, to improve sports performance or to party the night away. Others will consume them 'for their good (sweet) taste, to hydrate, for their perceived health benefits, or to enhance the taste of alcoholic beverages'<sup>10</sup>."

**It is important not to confuse ED with sports drinks (e.g. Gatorade, Powerade).** According to Plamondon et al (2013), the consumption of ED is not at all recommended before, during or after sports activities, as it *may impair sports performance. They can cause digestive disorders and impair hydration.* A report, made by Enquête in 2019 on the dangers of consuming ED associated with sports performance, details the risks and consequences. See the video on the website <https://www.youtube.com/watch?v=ndDrF8BhB8E>.

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<sup>6-6</sup> K. Adel, <https://www.soscuisine.com/blog/demystifions-les-boissons-energisantes/?lang=fr>

<sup>7</sup> P. Paquin, Une drogue bien connue et bien cachée, État de la situation sur le phénomène émergent des boissons énergisantes en vente libre, 2010

<sup>8</sup> L. Plamondon et coll (2013) TOPO : Les boissons énergisantes : entre menace et banalisation. Développement des individus et des communautés Santé environnementale et toxicologie numéro 6. INSPQ

<sup>9</sup> <https://www.educalcoool.qc.ca/informer/sante-bien-etre/exces-risques-moderation/lalcool-et-les-melanges/>

<sup>10-15</sup> L. Plamondon et coll (2013) TOPO : Les boissons énergisantes : entre menace et banalisation. Développement des individus et des communautés Santé environnementale et toxicologie numéro 6. INSPQ

## Beware of mixing

According to Éducalcool, "the alcohol-energy drink mix is treacherous because people who drink it do not feel the effects of intoxication as it really is. They are intoxicated by alcohol and their senses are impaired, but they don't realise it. "The risk of dehydration is also important to consider because caffeine and alcohol have diuretic effects<sup>11</sup>."

In addition, "some of these caffeinated alcoholic beverages (e.g. Rockstar + Vodka Octane) are similar in appearance to regular energy drinks". "Others (e.g. Revmd, Mojomd) are more like spirit-based coolers. These ready-to-drink mixes often have the advantage of being more economical than buying energy drinks and alcohol separately, and their sweet taste makes them more acceptable to those who do not like the taste of alcoholic drinks<sup>12</sup>."

## Courses of action

In order to promote a collaborative exchange and respect the autonomy of the client, it is desirable to use the micro-skill: DDFD (Miller and Rollnick). Your clinical judgment is important in the implementation of the information to be provided.

Here are some suggestions for information and intervention:

Follow the recommendations of Health Canada:

- 2.5 mg caffeine/kilo/day for an adolescent 13 years and older; 400 mg caffeine/day for an adult; 300 mg caffeine/day for a pregnant woman; 45 mg caffeine/day for a child 4-6 years old; 62.5 mg caffeine/day for a child 7-9 years old; 85 mg caffeine/day for a child 10-12 years old. According to Paquin, consume in accordance with label directions.<sup>13</sup>.
- Limit of 2 cans/day (500 ml) for an adult;
- Limit of one can/day (250 ml) for a teenager. IMPORTANT: These limits may vary by brand and size;
- Avoid mixing with alcohol or other PAS (**be careful** if you consume other products with caffeine: effects multiply, ★ **be careful** of diuretic effects);
- Avoid consumption if pregnant;
- Avoid consuming before, during and after sports activities (consume water or sports drinks such as Gatorade or Powerade).

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<sup>11</sup> <https://www.educalcool.qc.ca/informer/sante-bien-etre/exces-risques-moderation/lalcool-et-les-melanges/>.

<sup>12</sup> TOPO : Les boissons énergisantes : entre menace et banalisation Laurie Plamondon, Développement des individus et des communautés Collaborateur Pierre-André Dubé, Santé environnementale et toxicologie numéro 6 2013. INSPQ.

<sup>13</sup> P. Paquin, Une drogue bien connue et bien cachée État de la situation sur le phénomène émergent des boissons énergisantes en vente libre, 2010.  
★ Ajout autres pistes par le SREPED.

- ★ To help those around you, there are these two very interesting guides (in the appendix) as well as other ways of intervening.

Documents and references identified in this leaflet also available in English:

K. Adel, <https://www.soscuisine.com/blog/demystifions-les-boissons-energisantes/?lang=fr>

ENG: <https://www.soscuisine.com/blog/lets-debunk-energy-drinks/>

L. Plamondon et coll (2013) *TOPO : Les boissons énergisantes : entre menace et banalisation. Développement des individus et des communautés Santé environnementale et toxicologie* numéro 6. INSPQ

ENG : [https://www.inspq.qc.ca/sites/default/files/publications/1669\\_boissonsenergisantes.pdf](https://www.inspq.qc.ca/sites/default/files/publications/1669_boissonsenergisantes.pdf)

<https://www.educalcool.qc.ca/informer/sante-bien-etre/exces-risques-moderation/lalcool-et-les-melanges/>

ENG : <https://www.educalcool.qc.ca/en/info/health-well-being/excess-risks-moderation/alcohol-combinations-from-the-happy-combination-to-the-severe-danger/>

Documents to consult to further your knowledge or curiosity (in addition to those identified in this leaflet):

ENG:

[Caffeine | CAMH](#)

[Energy Drinks: The Facts Behind the Fizz | Montreal Children's Hospital \(thechildren.com\)](#)

[Why energy drinks can be deadly and health officials don't tell you \(Enquête\) | CBC.ca](#)

<https://www.canada.ca/en/health-canada/services/food-nutrition/food-safety/food-additives/caffeine-foods.html>

<https://www.hsph.harvard.edu/nutritionsource/energy-drinks/>

<https://cps.ca/en/documents/position/energy-and-sports-drinks>

<https://www.healthlinkbc.ca/healthlinkbc-files/caffeinated-energy-drinks>

FR :

[https://www.inspq.qc.ca/pdf/publications/1167\\_BoissonsEnergisantes.pdf](https://www.inspq.qc.ca/pdf/publications/1167_BoissonsEnergisantes.pdf)

<https://www.irbms.com/jeunes-et-boissons-energisantes/>

<https://www.inspq.qc.ca/toxicologie-clinique/la-aurine-et-les-boissons-energisantes>

<https://www.canada.ca/fr/sante-canada/services/aliments-nutrition/salubrite-aliments/additifs-alimentaires/cafeine-aliments.html>

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