

Complications associated with energy drinks

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A one-time survey was conducted among all 2,510 CPSP participants to assess their screening practices regarding the use of energy drinks among children and youth. The survey also collected data on related complications encountered in the past 12 months and the reasons for the use of energy drinks mentioned by patients.

The survey response rate was 30%. Among the 741 respondents, 64% were general paediatricians, 35% were subspecialists and 1% did not specify their status.

Almost half of the respondents (46%) said they do not screen for the use of energy drinks: 57% were subspecialists and 41% were general paediatricians. Only 4% of respondents said they always screen for energy drink consumption while just under half (49%) screen occasionally. One percent did not answer.

Sixty-seven respondents (9%) reported they encountered patients with caffeine-related complications in the last 12 months: 52% were general paediatricians and 47% were subspecialists, including emergency medicine specialists (n=8), cardiologists (n=6) and adolescent medicine specialists (n=5). Fifty of these 67 respondents encountered less than five children and youth with complications. Fifteen percent of those who screen for energy drink use reported having seen patients with complications compared to only 2% of those who do not screen. Eighty-eight percent of those reporting complications were physicians who screen for the use of energy drinks. The types of reported complications are shown in Table 1.

Thirteen out of 43 respondents (30%) who answered the question regarding the amount of energy drinks consumed at a time (during a short period) reported having seen children and youth who were drinking three or more cans/containers. Seventeen out of 37 respondents (46%) who answered the question regarding the amount consumed per day reported having seen children and youth who were drinking three or more cans/containers.

Among the physicians who reported complications (n=67), 28% reported that children and youth who presented with complications associated with energy drinks had also consumed alcohol and 26% reported the use of other drugs (psychostimulants 30%, cannabis 20%, amphetamine 10%). The majority of these respondents (78%) had seen the children and youth in an office setting.

The reasons physicians gathered from children and youth for the use of energy drinks are shown in Table 2.

Complications	Frequency (%)
Nervousness	35 (52)
Restlessness	34 (51)
Tachycardia	33 (49)
Palpitations	29 (43)
Insomnia	28 (42)
Headaches	20 (30)
Nausea	16 (24)
Arrhythmia	11 (16)
Hypertension	10 (15)
Vomiting	4 (6)
Vertigo	4 (6)
Diarrhea	2 (3)
Seizures	1 (1.5)
Euphoria	1 (1.5)
Hallucinations	1 (1.5)
Death	1 (1.5)
Others	9 (13)

TABLE 2 – Physicians reporting

This one-time survey has some limitations, such as low response rate, assumed causal relationship of complications to energy drink use and, to a lesser extent, incomplete data submissions. However, the results show that 96% of respondents do not, or only occasionally, screen for energy drink use. Those who screen are finding possible complications associated with the use or abuse of these drinks. Indeed, the results reveal potentially serious complications reported by 9% of respondents, mainly from those who screened.

Hopefully, this survey will increase awareness of potential health hazards associated with the use of energy drinks and the importance of screening, especially when confronted with certain symptoms.

Survey results also support initiatives to ensure that energy drinks no longer be labelled as natural health products, but rather managed as food, requiring the display of nutritional, ingredients and caffeine information. A maximum caffeine level for these products should also be set.

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reasons for energy drink use among children and youth (n = 64)	
Reasons	Frequency (%)
Increase alertness	46 (72)
Peer pressure	25 (39)
Sport performance	16 (25)
Increase attention	7 (11)
Exam performance	6 (9)
Decrease alcohol effect	5 (8)
Weight loss	3 (5)
Others*	21 (33)

* Energy, pleasure, preference, social reasons