

The Relationships
of ***Energy Drinks***
With Different Types
Of ***Hair Loss*** In Adults



Elithair

Energy drinks are highly consumed products. They are supposed to boost your energy, improve concentration and memory performance, and increase alertness.

Energy drinks contain multiple components, which may vary from one product to another. However, all products mainly have caffeine but in different concentrations, in addition to various minerals and vitamins.

Meanwhile, there is another relationship between excessive consumption of energy drinks and medical conditions, such as heart disease, GIT symptoms, and skin and hair manifestations.

We at Elithair, being hair experts, would like to give our intake on this matter. Therefore, this article aims to declare the relationship between energy drinks, which contain essential minerals for cellular division, hair development, and follicular growth, with the risk of hair loss due to energy drinks consumption.

Energy Drinks Are Rich In Minerals That Are Linked To Hair Growth

Energy drinks have plenty of minerals, the following elements are a sample of these components:

1. Sugar
2. Caffeine
3. Vitamin B
4. Carbohydrates and electrolytes
5. Herbal ingredients; like ginseng
6. Amino Acid derivatives; like L-Carnitine.



The development of hair goes under three stages: Anagen, Catagen, and Telogen. The previous minerals are essential for that growth, and play an important role in gene expression, accelerate cell division, enhance follicular proliferation, and protect hair follicles against oxidative damage.

Although those energy drinks appear very helpful for people who suffer from hair loss, there are several side effects that pron you to get hair loss directly, or by affecting your general health.

In the following table, you will see the effect of either deficiency or excessiveness of each mineral on hair loss:

	Deficiency	Excessive intake
Iron	Hair loss in telogen phase	—
Zinc	Associated with Telogen effluvium, Alopecia Areata	—
Niacin	Diffuse hair loss	—
Fatty Acid	Scalp & eyebrow hair loss	—
Selenium	Dry skin and sparse, light-colored hair	Hair loss
Vitamin D	Associated with Telogen effluvium & Female pattern hair loss	—
Vitamin A	—	Hair loss
Vitamin E	—	Hair growth impairment
Biotin	Associated with alopecia	—
Amino acids & proteins	Malnutrition associated hair loss	—
Folic Acid	—	—

Excessive Intake Of Energy Drinks is Associated With General Health Issues

In a survey over 6 European countries, evaluating side effects of supplements on 2359 patients, about 3.4% of side effects concerned with hair & skin.

Every year, there are around 20,000 patients visit the emergency room in the US only due to energy products' side effects.

In this meta-analysis study; you can see that most of the energy drink-related issues are caused by caffeine intoxication, which has a low threshold that estimates 3 mg/kg/day. In this study, researchers found that the majority of participants drink <1 energy drink per week.

Excessive energy drink intake-related manifestations:

	Symptoms	Percentage of participants (%)
Cardiovascular events	Tachycardia	26.2
	palpitation	20
	Dyspnea	10.3
	Chest pain	13.8
	arrhythmias	4.3
Gastrointestinal events	Abdominal pain	14.6
	GIT upset	18.7
	Low appetite	17.3
Neurological events	Headache	18.4
	Tremors	11.4
	Decreased coordination	36.9
Physiological events	Insomnia	34.5
	restlessness	25.1
	Dehydration	18.6
	Fatigue	12.5
Psychological events	Stress	35.4
	Depression	23



Energy Drinks Can Accelerate Hair Loss Directly

Excessive intake of energy and sports drinks is a predisposing factor of toxicity of certain elements, such as: caffeine, and selenium.

The toxic dose of caffeine is 3 mg/kg/d, and the daily dose shouldn't exceed 700 mcg for vitamin A, and 55 mcg for selenium.

Selenium and vitamin A are toxic substances for hair in large doses. And considered a predisposing factor for alopecia areata.

Energy Drinks Can Accelerate Hair Loss Indirectly

Diabetes mellitus is known to be a predisposing factor for both: cardiovascular disease, and metabolic abnormalities. The researchers found that blood glucose level was higher in people suffering from hair loss.

As mentioned in the section before, excessive intake of energy drinks is linked with an increase in catecholamines and stress hormones. Therefore, energy products are considered a risk factor for diabetes and metabolic abnormalities in the case of excessive consumption. Furthermore, it may cause hair loss.

In this study, the researcher suggests that metabolic syndrome is also associated with female patterned hair loss.

How Much Does One Need to Drink to Be at Risk?

The market share of sports & energy drinks has grown in 2022, and the US is in the first place.

You should take care before choosing your brand, as not all of them are approved by the FDA.

The consumption would depend on the components and their concentration of them. The average is 5 - 7 drinks per week.

Is There Any Alternative That Doesn't Damage Hair?

The side effects of energy drinks are associated with excessive consumption. The hair damage wouldn't occur unless you have other medical conditions or your intake exceeds the suggested amount.

You should take care if you suffer from other health conditions, especially systemic, metabolic, and autoimmune diseases.



What Foods/drinks Can Boost Hair Growth?

Minerals and vitamins are essential for hair growth. Your diet should contain the essential amount you need. Otherwise, you should compensate for the deficit with supplements.

Here are the daily amounts for the essential minerals and vitamins:

Vitamin A	700 - 900 mcg
Vitamin E	15 mg
Vitamin D	400 - 800 IU
Selenium	55 mcg
Zinc	8 - 11 mg
Iron	8 - 18 mg
Niacin	4 - 16 mg
Fatty acids	250 - 500 mg
Proteins	0.8 gm/kg
Biotin	30 - 100 mcg
Folic Acid	0.4 - 0.8 mg

Conclusion

- Minerals and vitamins are essential for hair development.
- Energy drinks have various components, but mainly have caffeine.
- The mineral deficiency is linked to some types of hair loss, and the excessiveness of certain elements is also harmful.
- Studies show that certain systemic diseases occur with certain types of hair loss.
- Energy drinks are not a cause for hair loss. However, excessive intake of those products and association of certain diseases may cause hair loss to happen.

RESOURCES

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