



NUTRIeNT

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The Story of Caffeine – Health Benefits and Controversy

Every morning, you likely partake in a ritual enjoyed by many (400 billion people to be precise)¹ – savouring an aromatic cup of java. But what’s really in that cup of coffee? There are some vitamins, minerals and food alcohols and of course, caffeine. If you were asked what the world’s most commonly used psycho active drug, would you guess caffeine?



Recipe Corner:

Carrot-Orange Juice²

Makes: 2 servings Serving size: 8 oz

Calories 111 Fat 1g Sodium 38 mg
Carb 24g Fiber 1g Pro 2g



Ingredients

- 1 medium yellow tomato, cut into wedges
- 1 medium orange, peeled and quartered
- 1 medium apple, cut into eights
- 4 large carrots, peeled
- Ice cubes, optional

Instructions

1. Work in this order: process tomato, orange, apple and carrots through a juicer according to the manufacturer’s directions. (No juicer? See TIP)
2. Fill 2 glasses with ice, if desired and pour juice into the glasses. Serve immediately.

TIP: No juicer? Try this blender version instead.

Coarsely chop all ingredients.
First, place the soft ingredients in the blender and process until liquefied.
Add remaining ingredients; blend until liquefied.
Layer 4 pieces of cheesecloth. Line a large bowl with the cheesecloth and pour blender contents in the center.
Gather edges of the cloth and squeeze the bundle to extract all juice from the pulp.
(Wear a pair of rubber gloves to avoid staining your hands)

Caffeine is considered a generally safe food substance and most people consume moderate amounts. The problem is we now have more food options to get that caffeine fix. More recently we have seen an explosion in popularity of energy drinks. Even more concerning is these drinks are marketed to the youth population. In moderate amounts, caffeine has been shown to have positive effects such as:

- Improved athletic performance
- Better concentration
- Increased alertness and reaction time
- Improved mood and decreased anxiety

With the good, sometimes also come the bad. Even for intakes within acceptable levels, there are negative effects:

- Withdrawal – leading to headaches, problems with concentration and sleep.
- Pregnancy – caffeine can cross maternal placental barrier therefore exposing the developing fetus. This can result in lower birth weight and risk of miscarriage.

Other Sources of Caffeine³



Tea
(50 mg)



Energy shot
(200 mg)



Energy drink
(75 mg)



Chocolate
(50 mg)



Medications
(65 mg)



Soda
(45 mg)

How much can I have?

Health Canada recommendations:

Healthy Adults

< 400 mg of caffeine/day
(about three 8 oz of brewed coffee)



Pregnant /Breastfeeding

< 300 mg of caffeine/day
(a little over two 8 oz cups of coffee)



Adolescents (13 y.o.+)
< 2.5 mg/kg body weight

References

¹ Coffee Statistics Report, 2010

² Recipe www.webmd.com

³ Average caffeine content www.mayoclinic.com

⁴ Bell, J., Coffee and Heart Health, *Today's Dietitian*, Vol. 12 No. 9 P.16

⁵ Webb, D., The Truth About Energy Drinks, *Today's Dietitian*, Vol. 15 No. 10 P. 62

⁶ The Dangers of Caffeine Powder, Getz, L., www.todaysdietitian.com

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Is coffee good for my health? ⁴

Research studies are showing some positive effects but there are no clear conclusions just yet. Also, there can be variability in individual use: how long you've been drinking coffee, how it's brewed, what you add to your cup of java. What we know with some certainty is, moderation is key.

Blood pressure: a couple cups of coffee have been shown to increase blood pressure temporarily, but long term studies show no connection between drinking coffee and high blood pressure.

Cholesterol: coffee contains food alcohols and some scientists believe this can increase cholesterol levels. On the flipside, coffee may have some antioxidant properties. Antioxidants help protect cells from damage.

Diabetes: drinking coffee has been shown to lower the risk of getting diabetes.

Heart Disease and Stroke: drinking two to four cups of coffee a day may reduce the risk of heart disease and stroke.

Energy Drinks and Shots – A Word of Caution ⁵

Energy drinks are flavoured beverages sold in cans or bottles that contain caffeine, vitamins, herbs, sugars and guarana, a plant product that naturally contains concentrated caffeine. Energy drinks have been promoted to help with weight loss, but because of the high sugar content, may actually lead to increased calories and therefore weight gain. Red Bull, Rockstar and Monster are some brands you may have come across.



Energy shots contain more concentrated amounts of caffeine and are sold in 50 ml containers. 5-Hour Energy has the lion share of this market.

In healthy adults, the amount of caffeine in about 4 cups of coffee a day is considered safe. Because more products are now available that contain caffeine, we can easily take in more caffeine than the amount normally found in these 4 cups.

Caffeine Powder – A New Danger on the Horizon ⁶



You may not have heard of caffeine powder, yet. For those looking for a stronger jolt than a cup of coffee or tea will give, a new concentrated supplement has come in to the market. It is popular with teens and young adults, easy to buy and cheap. One teaspoon of caffeine powder is equal to drinking 25 cups of coffee. In the past several months, there have been two reported deaths associated with using caffeine powder in the United States. It's possible there are other deaths not reported.

The Food and Drug Administration strongly advises people to avoid using caffeine powder. In Canada caffeine powders can be easily purchased at health food stores or through online stores.

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