



Caffeine

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Whether waking up to steaming coffee, or enjoying a cola, these daily pleasures have one thing in common—caffeine. Caffeine is in the leaves, seeds or fruits of more than 60 plants. These include coffee and cocoa beans, kola nuts and tea leaves. Caffeine containing beverages are very popular. Because caffeine intake is so widespread, it is a well-studied component of the food supply.

How does the body react to caffeine?

Caffeine is a mild stimulant. People differ greatly in how they react to caffeine. Many individuals can drink several cups of coffee with no effects, others may feel some effect after one serving.

Caffeine leaves the body within three to eight hours after intake. In sensitive individuals, caffeine can increase reaction time and the ability to carry out various demanding tasks. Many people find caffeine-containing beverages can help them stay alert to finish their work. Caffeine, however, will not help recover an individual who has consumed too much alcohol.

Does caffeine cause health problems?

Research on caffeine has not revealed any significant health hazard linked to normal caffeine intake. The U.S. Food and Drug Administration (FDA) reviewed the extensive scientific literature on caffeine. In 1987, they found no evidence that normal intake of caffeine would increase health risk. The American Medical Association examined the research on caffeine and came to a similar position on coffee's safety.

Evaluation of Coffee Safety

Research includes both animals and human studies. Research has established that any effects of caffeine

depend strongly on the dose and length of exposure. Human studies have included both direct biological tests, as well as checking data from human populations. Because extensive human data is available on caffeine, experts caution against applying high-dose animal experiment data to human safety.

Can caffeine intake affect sleep?

The effect of caffeine on sleep varies widely among the population. Individual reaction and frequency of intake seem to determine personal effect. Studies have concluded that many individuals feel no effect from caffeine on sleep. Others report caffeine delays or results in poorer quality sleep.

Does caffeine increase the risk of cancer?

Scientific research has not shown that caffeine is a possible cancer risk. A number of human population studies have examined this issue. Two recent studies in Norway and Hawaii found no relationship between coffee intake and cancer risk. This confirms the position of the American Cancer Society (caffeine does not increase the risk for cancer.)

Does caffeine contribute to breast diseases?

All clinical studies to date suggest that caffeine intake does not increase the risk for breast cancer. Researchers examining 100,000 deaths due to breast cancer concluded no association existed between caffeine intake and breast cancer. Recent research has also shown no relationship between caffeine intake and fibrocystic breast disease. Fibrocystic disease is a condition of non-cancerous fibrous lumps in the breast. Both the American Medical Association and the National Cancer Institute have stated there is no association between caffeine intake and fibrocystic disease.

Does caffeine cause high blood pressure?

A recent review of 17 studies reported that coffee does not cause increase blood pressure. Some sensitive individuals may, however, experience a small rise in

blood pressure. This does not last beyond a few hours. Studies show any temporary rise in blood pressure is less than that normally experienced from climbing stairs.

Does caffeine increase the risk of heart disease?

The bulk of scientific research does not support a link between caffeine intake and heart disease. In 1989, the National Research Council stated that evidence linking coffee intake to heart disease is weak and inconsistent. The well-respected Framingham Heart Study has collected data over two decades, beginning in 1954. A 1989 report from the Framingham Study stated that coffee intake did not increase heart disease risk.

Is moderate caffeine intake harmful during pregnancy?

Three major studies involving more than 15,000 women have found no birth defects associated with caffeine intake. Even heavy coffee drinkers gave birth to infants free of birth defects. Human studies have not shown any connection with moderate coffee consumption during pregnancy, spontaneous abortion, early delivery, or low birth weight.

Recent animal studies have found no birth defects nor decreased birth weight for rats given high caffeine doses in their drinking water. These results disagree with earlier research in 1980 that had prompted a caution to pregnant women to avoid caffeine. The earlier study force-fed rats high caffeine doses all at once through stomach tubes. In recent research, rats sipped similar caffeine doses in their drinking water, but with no observable side effects.

The FDA has stated that scientific evidence does not indicate caffeine intake is harmful during pregnancy. The agency does continue to advise pregnant women to consume only moderate amounts of caffeine.

Can caffeine affect fertility?

In 1990, the largest and most thorough study of women's caffeine intake and fertility found no link between caffeine and fertility problems. Previously, one study suggested that caffeine might reduce a woman's chance of becoming pregnant. However, the authors acknowledged that they did not examine other aspects that may affect fertility such as eating habits and stress.

Is it possible to consume too much caffeine and become hooked?

Caffeine is not habit forming according to most authorities. Some people who consume large amounts of caffeine have described symptoms including headaches and shaking with sudden decreased intake. Such symptoms do not actually represent a pattern of being caffeine-dependent. Usually, these symptoms are avoided if intake decreases slowly over several days.

Does caffeine affect children more than adults?

Actually, children are no more sensitive to caffeine's potential effects than adults. In general, children eliminate caffeine from their body twice as rapidly as adults, because their livers clear it faster.

Caffeine Content of Popular Beverages and Foods

Item	Caffeine content ^a (mg)
Coffee (5-oz cup)	
Drip method	110-150
Percolated	64-124
Instant	40-108
Decaffeinated	2-5
Instant decaffeinated	2
Tea, loose or bags (5-oz cup)	
1-min brew	9-33
3-min brew	20-46
5-min brew	20-50
Tea products	
Instant (5-oz cup)	12-28
Iced tea (12-oz can)	22-36
Chocolate products	
Hot cocoa (6 oz)	2-8
Dry cocoa (1 oz)	6
Milk chocolate (1 oz)	1-15
Baking chocolate (1 oz)	35
Sweet dark chocolate (1 oz)	5-35
Chocolate milk (8 oz)	2-7
Chocolate-flavored syrup (2 tbsp)	4

^aData obtained from Consumers Union, Food and Drug Administration, National Coffee Association of the U.S.A., and National Confectioners Association of the United States.

Caffeine Content of Various Soft Drink

Soft Drinks Containing Caffeine ^a	Caffeine Content ^b (mg/12- Oz Serving)
Sugar-Free Mr. PIBB	58.8
Mountain Dew	54.0
Mello Yello	52.8
TAB	46.8
Coca-Cola	45.6
Diet Coke	45.6
Shasta Cola	44.4
Shasta Cherry Cola	44.4
Shasta Diet Cherry Cola	44.4
Mr. PIBB	40.8
Dr. Pepper	39.6
Sugar-Free Dr. Pepper	39.6
Big Red	38.4
Sugar-Free Big Red	38.4
Pepsi-Cola	38.4
Aspen	36.0
Diet Pepsi	36.0
Pepsi Light	36.0
RC Cola	36.0
Diet Rite	36.0
Kick	31.2
Canada Dry Jamaica Cola	30.0
Canada Dry Diet Cola	1.2

^aThere are at least 200 flavors, varieties, and types of soft drinks, manufactured by the leading bottlers, that contain no caffeine

^bData obtained from the National Soft Drink Association

Caffeine Content of Drug Preparations^a

Classification	mg/tablet or capsule
Over-the-Counter	
Stimulants	
No-doz Tablets	100
Vivarin Tablets	200
Pain Relievers	
Anacin	32
Excedrin	65
Excedrin P.M.	0
Midol (for cramps)	32
Midol (P.M.S.)	0
Plain aspirin, any brand	0
Vanquish	33
Diuretics	
Aqua-Ban	100
Cold Remedies	
Coryban-D	30
Dristan	0
Weight-Control Aids	
Dexatrim	200
Dexatrim, caffeine-free	0
Dietac	200
Dietac, caffeine-free	0
Prescription	
Amaphen	40
Cafergot	100
Darvon compound	32.4
Darvon compound-65	32.4
Fioricet	40
Fiorinol	40
Migralam	100
Percaps	40
Synalgos-DC	30
Triad	40
Two-Dyne	40
Wigraine	100

^aInformation on caffeine content and standard dosages obtained from Physician's Desk Reference (1986) and Physician's Desk Reference for Non-prescription Drugs (1986)

References

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