CAFFEINE
HOW MUCH DO YOU KNOW ?

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CAFFEINE is a drug, renowned for its stimulating effects on humans. Caffeine occurs naturally in coffee beans, tea leaves, kola nuts and cocoa beans. Coffee is a well known source of caffeine but many people unknowingly take in caffeine from other parts of their diet. Tea, cocoa, chocolate and cola based soft drinks contain measurable quantities of caffeine and some cold preparations and stimulants also contain caffeine.

> *A dose of 200 milligrammes (mg) per day of caffeine is enough to cause observable effects on the body. A safe level of caffeine intake is no more than 250 mg per day. An average cup of coffee contains about 100 mg and a can of Coke contains about 50 mg.*
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> *Doses of 200-500 mg per day can produce widely varying effects, from mild irritability to severe insomnia, muscle tremors, nervousness, heart palpitations, aching legs and upset stomach. Body size and individual susceptibility determine the degree to which a person is affected.*

Caffeine is quickly metabolised: all traces are gone from the body in eight hours. This often gives rise to an early morning craving for another cup of coffee or tea. There is little doubt that some people become addicted to the stimulant effect of caffeine and experience withdrawal symptoms. These may include headache, followed by tiredness or lethargy, and general muscle pains similar to the onset of impending influenza.

Caffeine addiction is now linked to anxiety neurosis and some researchers have recognised that patients may benefit by removing products containing caffeine from their diet.

The developing foetus can absorb caffeine which is transferred across the placental barrier. Tests have shown that rats and dogs receiving 50 mg caffeine per kilogram of body weight have increased rates of birth defects and reduced fertility. A recent study of the effect of caffeine on human pregnancies showed that 15 out of 16 pregnant women who consumed about 600 mg (or eight cups of coffee) per day had problem pregnancies, including spontaneous abortions, stillbirths and premature births. In September 1980 the United States Food and Drug Administration advised pregnant women to avoid foods and drugs containing caffeine.

Systems of the Body Affected

Caffeine affects a variety of systems within the body. It:

- stimulates the central nervous system
- stimulates heart muscles
- makes intestinal muscles slack
- stimulates secretion of stomach acid, which may aggravate ulcers and heartburn
- causes increased urination (with possible loss of minerals and vitamins)
- raises blood pressure
- has the effect of quickly raising the blood sugar level which temporarily 'makes you feel good', but lowers it at a faster than usual rate.

Even though 250 mg of caffeine is considered a large dose by pharmacologists, chronic users can routinely take in 900 mg daily when they have developed a tolerance that permits a gradual increase in dosage to go relatively unnoticed. When symptoms of high caffeine intake do arise, users are sceptical that caffeine consumption is the cause. A diagnosis of an anxiety condition could be incorrectly made and tranquilisers and sleeping pills prescribed. The relation between the caffeine and the symptoms can be easily checked if caffeine intake is stopped and then followed, after an initial withdrawal period, to see if the symptoms return.

A GUIDE TO AMOUNTS OF CAFFEINE CONTAINED IN COMMON SOURCES OF CAFFEINE

Coffee	percolated	100mg/150ml
	drip coffee	80-200mg/150ml
	instant	60-70mg/150ml
	decaffeinated	2mg/150ml
Cocoa		15-50mg/150ml
Tea	instant	30mg/150ml
	brewed black	50mg/150ml
Cola drinks		35-70mg/370ml can (large)
Chocolate		10mg/100g
Lucozade		30mg/180ml

Why is caffeine pushed?

Addiction to the stimulating effect of caffeine is useful to those who promote coffee, tea, cola drinks and chocolate, since it ensures a large continuing market for their products. While sales of these products provide profits to corporations, the benefit to the consumer is doubtful. Coffee, tea and cola drinks have no nutritional value, and only beneficial effects can result from removing them from the diet. The stimulating effect of caffeine is only temporary, and decreases with constant use. Removal of caffeine from the diet has not been demonstrated to reduce general levels of awareness, and will allow signals of tiredness from the body to be received more clearly, leading to a healthier life style.

Agricultural production of coffee beans, tea leaves, kola nuts and cocoa takes place primarily in the poor countries as an export cash crop, lowering the price for these products in rich countries. The benefits to the agricultural workers is dubious, since freqnently these products are grown at the expense of food for local consumption.

Alternatives

There are an increasing number of alternatives to coffee and tea, such as herbal teas and coffee substitutes made from roasted grains, which do not contain caffeine. De-caffeinated coffee is a possible alternative, but the process used to extract the caffeine may leave harmful by-products. Carob is an alternative to chocolate, but carob products may contain high levels of sugar – as does sweetened chocolate - and excess sugar intake is undoubtedly harmful to health.

If one is addicted to caffeine, no substitute will satisfy the craving for its stimulating effect during the period of withdrawal. A more fundamental alternative to consuming products containing caffeine is eating nutritious foods such as fresh fruits and vegetables, and drinking beverages made from them such as orange juice.

References:

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Who me? addicted!