Source	Caffeine (mg)
Cup (6 oz.) espresso coffee	310
Cup (6 oz) boiled coffee	100
Cup (6 oz) instant coffee	65
Cup (6 oz) tea	10—50
Cup (6 oz) cocoa	13
Can (6 oz) cola	25
Can (6 oz) Coca Cola®	20
Cup (6 oz) maté	25—50
Can (6 oz) Pepsi Cola®	10
Tablet caffeine	100—200
Tablet Zoom® (800 mg) (Paullinia cupana)	60

In humans, caffeine, 1,3,7-trimethylxanthine, is demethylated into three primary metabolites: theophylline, theobromine, and paraxanthine. Since the early part of the 20th century, theophylline has been used in therapeutics for bronchodilation, for acute ventricular failure, and for long-term control of bronchial asthma. According to Tiscornia et al.,[136] the sterol fraction of coffee seed oil contains 45.4 to 56.6% sitosterol, 19.6 to 24.5% stigmasterol, 14.8 to 18.7% campesterol, 1.9 to 14.6% 5-avenasterol, 0.6 to 6.6% 7-stigmasterol, and traces of cholesterol and 7-avenasterol. Coffee pulp is a valuable cattle feed, unpalatable to cattle at first. The pulp is comparable to corn in total protein, and superior to it in calcium and phosphorus content. In India, cattle feed on the pulp with no apparent ill effects. The ash of the "cherry" husk is rich in potash and, therefore, forms a valuable manure. Air dry coffee pulp contains 1.34% N, 0.11% phosphoric acid (P_2O_5), and 1.5% potash (K_2O). After compositing these values change to 0.91% N, 0.31% P_2O_5, 0.71% K_2O.[1] Leaves and reject seed may also be used as compost.[1] Leaves are reported to contain, per 100 g, 300 calories, 6.4% water, 9.3% protein, 5.5 g fat, 66.6 g total carbohydrate, 17.5 g fiber, 12.2 g ash, 1910 mg Ca, 170 mg P, 96.6 mg Fe, 2360 mg carotene equivalent, 0.00 mg thiamine, 0.21 mg riboflavin, and 5.2 mg niacin. Seeds contain, per 100 g, 203 calories, 6.3% water, 11.7 g protein, 10.8 g fat, 68.2 g total carbohydrate, 22.9 g fiber, 3.0 g ash, 120 mg Ca, 178 mg P, 2.9 mg Fe, 20 mg β-carotene equivalent 0.22 mg thiamine, 0.6 mg riboflavin, and 1.3 mg niacin.[21] Raw coffee contains *circa* 10% oil and wax extractable with petroleum ether. The fatty acids consist chiefly of linoleic, oleic, and palmitic acids, together with smaller amounts of myristic, stearic, and arachidic acids. From the unsaponifiable matter, a phytosterol, sitosterol, cafesterol, caffeol, and tocopherol have been isolated. Among the identified components of the volatile oil present in roasted coffee are acetaldehyde, furan, furfuraldehyde, furfuryl alcohol, pyridine, hydrogen sulphide, diacetyl, methyl mercaptan, furfuryl mercaptan, dimethyl sulfide, acetylpropionyl, acetic acid, guaiacol, vinyl guaiacol, pyrazine, *n*-methylpyrrole, and methyl carbinol. All these substances do not preexist in the unroasted coffee beans; some are, undoubtedly, the products of the roasting process and others are produced by the decomposition of the more complex precursors.[1]

Toxicity — Classed as a narcotic stimulant.[54] As a long-term drinker of 5 to 10 cups of coffee a day, I do not think I do myself any favors by drinking coffee. Tyler[37] cites "some evidence linking coffee and cancer of the pancreas . . . Caffeine . . . in large amounts produces many undesirable side effects — from nervousness and insomnia to rapid and irregular heartbeats, elevated blood sugar and cholesterol levels, excess stomach acid, and heartburn. It is definitely a teratogen in rats."[37] At 100 mg/kg theophylline is fetotoxic to rats, but no teratogenic abnormalities were noted. In therapeutics, theobromine has been used as a diuretic, as a cardiac stimulant, and for dilation of arteries. But at 100 mg, theobromine is fetotoxic and teratogenic.[137] Leung reports a fatal dose in man at 10,000