Factors affecting caffeine metabolism

Various different factors influence how the body metabolises caffeine, which impacts how caffeine intake affects everyday activity.

**Genetic variations** may affect the way an individual metabolises caffeine. The population could be divided into ‘slow’ and ‘fast’ caffeine metabolisers by a specific enzyme.1,2

**Alcohol intake** can prolong caffeine half-life and decrease caffeine clearance.4

**Certain liver diseases** may reduce plasma clearance of caffeine.12

**Research suggests that smoking** stimulates caffeine clearance and almost doubles the rate of caffeine metabolism.9,10,11

**Several dietary factors** may affect caffeine metabolism.5–8 Eating broccoli and brassica vegetables, or large quantities of vitamin C, can increase caffeine clearance.8

**The use of oral contraceptives** doubles caffeine half-life, mainly during the second half of the menstrual cycle.3

References