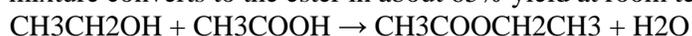


Caffeine reduction for our tea can be commercially adopted via one of, or a combination of the following options:

- The partial use of quality, organic decaffeinated tea leaves.
- The partial use of quality can offer a variety of different options; e.g. a blend of two types of leaves, for example, a ratio of 30% or 40% naturally decaffeinated tea, and 70% or 60% organic, regular, tea.
- The use of Optimum Green's method, "proposed method, at this point, theoretical" - where by pre-dried, farm-fresh tea leaves are treated with natural agents present in herbs and fruits such as ethyl acetate. (The industry commonly uses trichloroethylene or methylene chloride to produce commercial decaffeinated beans.) The organic compound Ethyl acetate, systematically, ethyl ethanoate, CH₃COOCH₂CH₃ is very volatile, evaporating at 77 C and as such can be removed from the tea easily. The principle is based on the fact that Ethyl acetate is synthesized via the reaction of ethanol and acetic acid. This mixture converts to the ester in about 65% yield at room temperature:

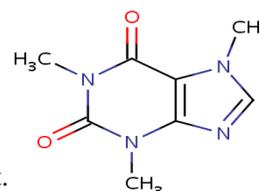


It can also be prepared by combining two equivalents of acetaldehyde in the presence of an alkoxide catalyst:



A natural blend of fruit extracts, mainly bananas and berries, would be the base of the chemical manipulation. This method can be costly, and in fact, it will produce the same result as the water-soaking, carbon filter, column extraction process, which is commercially and economically sound.

Caffeine itself, "the compound C₈H₁₀N₄O₂" is not responsible for the flavour of tea, however, as we see in the illustration to the right, that even a very small quantity in the solution (tea drink) can be utilized to a positive role in helpful chemical manipulations. Keep in mind that total caffeine removal is not obtained via the method Optimum Green sought. In fact, nor do we think it's necessary. Significant caffeine reduction can be achieved via the use of a blend of normal and decaf tea at a desired ratio.



The introduction of totally decaffeinated Gouda tea will have to utilize commercial decaffeinated tea, to be enriched with the Gouda health blend.

Hence, the Gouda approach can be simplified since the goal is partial (not absolute) decaffeinating of the tea. Simply using the fruits extract in soaking the green leaves, a simple partial caffeine carbon extraction filtering, and "roasting-like" treatment of the leaves for a longer period.

Hence, the heart of Gouda tea is the supplementary blend addition, not the tea leaves – as long as they are quality teas.

Our recommendation, and our present approach is:

- 25% quality organic decaffeinated tea.
- 75% quality organic tea
- The addition of the Gouda formula of natural health supplementary blend.

Fact: all the benefits of tea are the same in both natural tea and decaffeinated tea (with the obvious exception of the caffeine element, and in fact the exception of the weakening or suspension of some good properties of tea via the decaffeinating process.) Caffeine is not the source or the reason behind tea's medicinal benefits.

Fact: while tea has much less caffeine than coffee, it is also easier to decaffeinate. In fact, if steep you tea in hot water for one single minute, remove it, decant the water, and then add fresh hot water to use your tea, you would remove a gigantic 60% of the caffeine. You can't have a more natural process than that, and the hot soaking and drying was adopted as part-1 of the Optimum Green method, to be followed by enrichment with the indicated spices-herbs Gouda tea.

It must finally be emphasized that Gouda Tea's approach is focused on the enrichments with health supplements of natural herbs and spices in a specific ratio. An average of 1 gram per cup of the Gouda blend can be added to any tea.

[Home page](#)