Cup of Black Tea...Good For Health

Lungs  Heart  Bacterial diseases  Skin  Tooth  Brain
Types of tea commonly consumed

Camellia sinensis (L.) O. Kuntze

Tea Leaves
De-Activation of Enzymes
Rolling
Green Tea

Crushed Tea Leaves
Polyphenol Oxidase
Fermentation, Polymerization
Black Tea

Composition of black tea is complex

FLAVONOIDS in TEA
- Flavan-3-ols: The catechin monomer structures become dimers (theaflavins) and the oligomers (thearubigins) in the fermentation
  Process during the manufacture of Black tea.
- Kaempferol, Myricetin, Quercetin
  Processing during manufacture of Black tea does not have much impact on other flavonol content of tea. Flavonols such as quercetin also are antioxidants.

Why is black tea good for health???

- Until recently, tea research has focused more on Green tea. Green tea has the compound like epigallocatechin gallate (EGCG), which is a powerful antioxidant.
- Since the fermentation process is used to make Black tea, catechins are converted into other compounds. Researchers in the past had assumed black tea has less health benefits than green tea. However, recent studies indicate that polyphenolic compounds in the black tea - theaflavins and thearubigens - not only contribute to the dark color and distinctive flavor of Black tea, but they represent the potential molecules with immense therapeutic implication.
- Polyphenolic compounds present in black tea can protect cells and tissues from oxidative stress by scavenging free radicals. Synergistic interactions amongst black tea constituents play a major role in the beneficial effect of tea (2).
Black tea & reactive oxygen species

Tea Scavenges Reactive Oxygen Species

What's so great about my cup of Black Tea?

FLAVONOIDs in TEA

Are good for heart... (4)
Lowers cholesterol... (5)
Aids in weight loss... (6)
Prevents skin damage... (7)
Improves circulation... (8)
Helps with good digestive health... (9)
Soothes stress... (10)
Is antibacterial... (11)
Protects liver function... (12)
Relaxes the body... (13)
Prevents sun damage... (14)
Helps protect against diabetes... (15)
And strengthens bones... (16)
Bolsters your immune system... (17)
Helps prevent arthritis... (18)
Removes toxins from your body... (19)
Helps prevent cancer... (20)
Aids in maintaining healthy eyes... (21)
And helps heal lung damage... (22)
Prevents gastric ulcer (23)

Tea also contains a unique amino acid, L-theanine that has relaxing effect (24, 25)

L-theanine

- Studies have shown that theanine decreases "worry" out of one's head by acting on some critical pathways in the brain.
- L Theanine increases GABA (gamma-aminobutyric acid), an important inhibitory neurotransmitter in the brain. GABA can be considered the brain's natural sedative that brings balance to excitability that can sometimes lead to restlessness, insomnia, and other disruptive conditions.
- L Theanine also increases levels of dopamine, another brain chemical with mood-enhancing effects.
References

1. Tea and Chronic Disease Prevention; Jane Higdon Linus Pauling Institute, Oregon State University, Ph.D., 2002. lpi.oregonstate.edu/f-w02/tea.html lpi.oregonstate.edu/f-w02/tea.html