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شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



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لم ترد بالأصل



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**Effect Of Drinking Tea On Some
Chemical And Biochemical Parameters
In Biological Fluids**

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Thesis

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By

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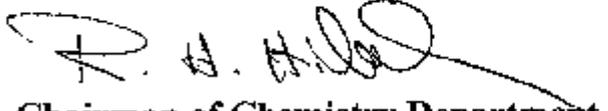


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- 5- Biochemistry.
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- 16- Carbohydrates.
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List of Abbreviations

ACTH: Adrenocorticotrophic Hormone

AL : Aluminum

ALP : Alkaline phosphatase

ALT : Alanine transaminase

AST : Aspartate transaminase

CNS : Central Nervous System

Cr : Chromium

F : Fluoride

Fe : Iron

FFA : Free Fatty Acid

GI : Gastrointestinal tract

HDL : High Density Lipoprotein

LDL : Low Density Lipoprotein

Mn : Manganese

RIA : Radioimmunoassay

T₃ : Triiodothyronine

T₄ : Thyroxin

TSH : Thyroid Stimulating Hormone

VLDL: Very Low Density Lipoprotein

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the area in which it is grown, and the way of processing tea. One of the most important processes in tea manufacturing for drink is fermentation. The fermentability of tea leaves is genetically regulated by the activity of polyphenol oxidase, which is controlled by a polygene system. The degree of fermentation greatly affects the quality and type of tea (Toyao, 1984). The greater the fermentation, the lower the polyphenol content and the higher the caffeine content (Van het Hof KH.*et al.*, 1998). According to the degree of fermentation, tea is classified into green tea (unfermented), Oolong tea (semi - fermented), and black tea (fully fermented) (Toyao, 1984).

Green tea is drunk mainly in China, Japan and some parts of south America. In the western world, green tea is sometimes drunk as a specialty tea. The main components of green leaves (% dried leaf) are polyphenols 37%, caffeine 3.5%, and amino acids 4% (Graham, 1992). Black tea has 2-3 times the caffeine content of green tea (Van het Hof KH.*et al.*, 1998)

During the past years, extensive studies of trace elements in various tea leaves have been carried out and data about their intake from drinking tea are scarce. It has been recognized that trace elements in tea are varies with the geographic origin of the leaf, the time of harvest and the manufacturing process (Wang *et al.*, 1993). A few researches have reported that drinking tea affected absorption of minerals from meal which tannin in tea chelated iron, zinc and copper and decreased their bioavailability (Pizarro *et al.*, 1994).

There are a lack of studies on the effect of drinking tea on human organs and tissues.

Aim of the work

This study attempts to investigate the relationship between drinking tea and its effects on the chemical and biochemical parameters in healthy Egyptian volunteers, including liver functions (ALT, AST, ALP), kidney functions (urea, Creatinine), thyroid hormones (Total T₄ and T₃) and serum level of some trace elements (Mn, Cr, Al).