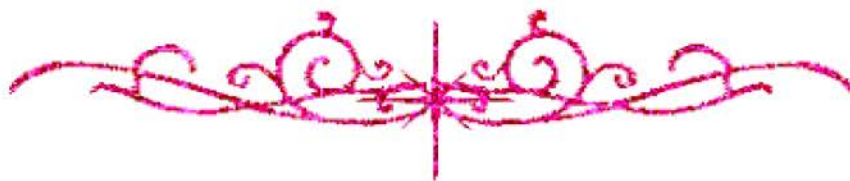


# بسم الله الرحمن الرحيم





# شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم





# جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

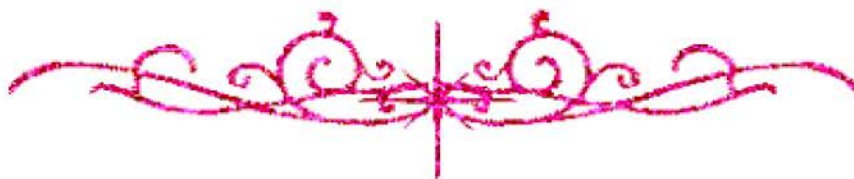
## قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها  
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



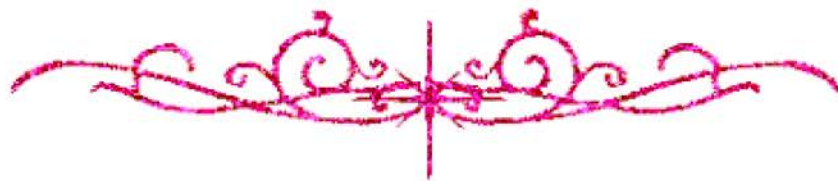
## يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار





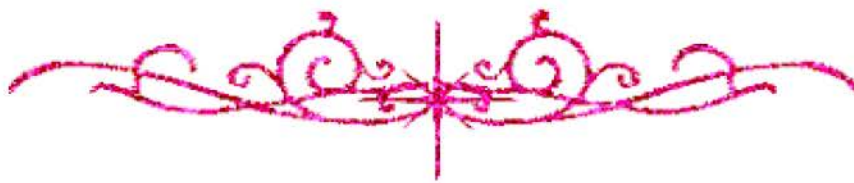
بالرسالة صفحات  
لم ترد بالأصل







# بعض الوثائق الأصلية تالفة



B11V4V

# **NUTRITIVE STUDIES ON SOME OF THE WORKER IN MENOUFIA BAKERIES**

BY

**MOHAMED ABO EL- FTOH MAHDY**

B.Sc.

in

**Plant Protection**

**Faculty of Agriculture - Menoufia University**

1982

**THESIS**

**SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE DEGREE OF MASTER  
IN NUTRITION AND FOOD SCIENCE**

**NUTRITION AND FOOD SCIENCE DEPT.  
FACULTY OF HOME ECONOMICS  
MENOUFIA UNIVERSITY**

**1998**

⑤

***UNDER THE SUPERVISION OF:***

**PROF. DR/ MOHAMED FAHMY SEDIQ** 

Prof. Of Food Hygiene

Nutrition Institute- Cairo

**PROF. DR/ SLAH EL-DEEN AEED AHMED** 

Prof. Of Food Hygiene

Nutrition Institute- Cairo

**DR. / SHERIF SABRY RAGAB** 

Lecturer of Nutrition And Food Sciences.

Faculty of Home Economics.

Menoufia University

⑤

## APPROVAL SHEET

Title of thesis: **Nutritive Studies On Some Of The Worker In Menoufia Bakeries.**

Degree: **M. Sc. Degree Of Nutrition And Food Science**

Name of student: **Mohamed Abo El- Ftoh Mahdy**

*This thesis has been approved by:*

Prof. Dr.



Prof. Dr.

M. A. Abo Zaid

Prof. Dr.

M. M. EL Sayed

Prof. Dr.

\_\_\_\_\_



Committee in charge

Date     /     / 1998



## ACKNOWLEDGMENT

Thanks Allah for helping me in these work and every work.

I would like to express my deepest and sincere gratitude to Prof. Dr./ Mohamed Fahmy Sediq. Prof. of Food Hygiene, Nutrition Institute at Cairo for his scientific support and valuable supervision throughout this work.

My sincere gratitude and indebtedness are due to. Prof. Dr./ Slah El- Deen Aeed, Prof. of Food Hygiene, Nutrition Institute at Cairo for his interest indispensable advice and valuable comments.

I wish to express my hearty appreciation and sincere gratitude to. Dr. / Sherief Sabry Lecturer of Nutrition and Food Science, Home Economics Faculty, Menoufia University for his supervising this work and for his significant advice and criticism in the preparation of the thesis.

Also, I would like to thank Dr. / Mohamed Saleh Mohamed Lecturer of Nutrition and Food Science, Home Economics Faculty, Menoufia University for his valuable help in completeness and achieving this work.

Finally, deep thanks are paid to my faithful, Wife, Sons and my family.

---

---

## List of contents

<b>INTRODUCTION</b>	<b>1</b>
<b>AIM OF WORK</b>	<b>3</b>
<b>REVIEW OF LITERATURE</b>	<b>4</b>
<b>Adulthood</b>	<b>4</b>
<b>Body Changes During Adulthood:</b>	<b>5</b>
<b>B- Dietary requirement:</b>	<b>5</b>
<b>Energy Requirements:</b>	<b>6</b>
<b>Protein Requirements:</b>	<b>10</b>
<b>Vitamins and Minerals Requirements:</b>	<b>12</b>
<b>Factors Affecting Food Intake:</b>	<b>16</b>
-1 <b>Education:</b>	<b>17</b>
-2 <b>Occupation:</b>	<b>17</b>
-3 <b>Income:</b>	<b>17</b>
-4 <b>Family size:</b>	<b>18</b>
-5 <b>Food price:</b>	<b>19</b>
-6 <b>Food availability:</b>	<b>19</b>
-7 <b>Food habits and Beliefs:</b>	<b>19</b>
<b>Factors Influencing Food Habits</b>	<b>20</b>
-1 <b>culture influences.</b>	<b>20</b>
-2 <b>Believes</b>	<b>20</b>
-3 <b>Religious:</b>	<b>21</b>
-4 <b>Emotional Effects:</b>	<b>21</b>
-5 <b>Economic Level:</b>	<b>21</b>

---

---

---

-6Social Problems Related To Food Habits:	22
<b>Relation between diet and work</b>	<b>22</b>
I- Diet and working capacity:	22
II- Diet, health and working efficiency:	23
III- Effect of dietary improvement on production:	23
<b>Nutritional status of workers:</b>	<b>24</b>
<b>HEALTHY ADULTS:</b>	<b>29</b>
<b>MATERIALS AND METHODS</b>	<b>32</b>
A- MATERIAL:	32
B- METHODS	33
<b>RESULTS AND DISCUSSION</b>	<b>36</b>
<b>RECOMMENDATIONS</b>	<b>80</b>
<b>ENGLISH SUMMARY</b>	<b>81</b>
<b>REFERENCES</b>	<b>87</b>
<b>APPENDIX</b>	<i>Error !Bookmark not defined.</i>
<b>ARABIC SUMMARY</b>	<b>79</b>

---



## List of tables

<i>Table (A): Signs of Healthy Persons</i>	31
<i>Table (B): The Total Studied Bakery Workers Classified According To Study Site</i>	32
<i>Table (C) presents an account for all the parameters carried out on the studied individuals :33</i>	
<i>Table (1): Frequency distribution of bakery workers according to their locality and sex</i>	36
<i>Table (2): Frequency distribution of bakery workers according to their marital status</i>	36
<i>Table (3) represents the frequency distribution of sample according to education level</i>	40
<i>Table (4): The mean <math>\pm</math> SD of age and income for studied workers</i>	41
<i>Table (5): The frequency distribution of studied subjects according to age group</i>	41
<i>Table (6): The frequency distribution of studied subjects according to their baking work status</i>	44
<i>Table (7): The frequency distribution of studied subjects according to their health status</i>	45
<i>Table (8): The frequency distribution of subjects according to malnutrition features</i>	46
<i>Table (9) The frequency distribution of sample according to number of eaten meals and omitted meals</i>	47
<i>Table (10): The frequency distribution of sample according to method of cooking</i>	50
<i>Table (11): The frequency of sample according to their preferred foods</i>	52
<i>Table (12): The frequency distribution of studied subjects according to amount of salt in foods</i>	52
<i>Table (13): The frequency distribution of studied subjects according to their preference pickles</i>	54
<i>Table (14) show the frequency distribution of studied subjects according to their preference of salads in rural</i>	54
<i>Table (15): The frequency distribution of studied subjects according to their prefer beverages</i>	55
<i>Table (16): The frequency distribution of studied subjects according to the amount of sugar consumed</i>	55
<i>Table (17): The frequency distribution of studied subject according to tea status and concentration</i>	56
<i>Table (18): The mean <math>\pm</math> SD of anthropometric measurements, hematocrit and hemoglobin for studied persons .</i>	60
<i>Table (19): The mean <math>\pm</math> SD of essential nutrients intake for studied persons .</i>	62

---

---

*Table (20): The mean and percentage of nutrients intake as compared with RDA 1989 for studied persons . \_\_\_\_\_ 64*

*Table (21) showed the mean  $\pm$  SD percentage of energy yielding from essential nutrients intakes of studied subjects . \_\_\_\_\_ 66*

*Table (22): The mean  $\pm$  SD of essential minerals intake for studied persons . \_\_\_\_\_ 71*

*Table (23): The mean and percentage of nutrients intake as compared with RDA 1989 for studied persons \_\_\_\_\_ 72*

*Table (24): The mean  $\pm$  SD of essential vitamins intake for studied persons \_\_\_\_\_ 75*

---

---

---

---

## List of figures

<i>Figure (1): Frequency distribution of total sample according to social status</i>	<i>38</i>
<i>Figure (2): Frequency distribution of total sample according to education level</i>	<i>39</i>
<i>Figure (3): Frequency distribution of total sample according to age group</i>	<i>42</i>
<i>Figure (5): Frequency distribution of total sample according to number of meals</i>	<i>48</i>
<i>Figure (6): Frequency distribution of total sample according to omitted meal</i>	<i>49</i>
<i>Figure (7): Frequency distribution of total sample according to method of cooking</i>	<i>51</i>
<i>Figure (8): Frequency distribution of total sample according to preferred foods</i>	<i>53</i>
<i>Figure (9): Frequency distribution of total sample according to tea status</i>	<i>57</i>
<i>Figure (10): Frequency distribution of total sample according to tea concentration</i>	<i>58</i>
<i>Figure (11): Energy and total protein intake as a percentage of RDA (1989)</i>	<i>65</i>
<i>Figure (12): Percentage of energy yielding from protein, fat and carbohydrate for urban males</i>	<i>67</i>
<i>Figure (13): Percentage of energy yielding from protein, fat and carbohydrate for urban females</i>	<i>67</i>
<i>Figure (14): Percentage of energy yielding from protein, fat and carbohydrate for rural males</i>	<i>68</i>
<i>Figure (15): Percentage of energy yielding from protein, fat and carbohydrate for rural females</i>	<i>68</i>
<i>Figure (16): Minerals intake as a percentage of RDA (1989)for studied workers</i>	<i>73</i>
<i>Figure (17): Vitamins intake as a percentage of RDA (1989)for studied workers</i>	<i>79</i>

---

---



# ***Lis of Abbreviations***

BMR	Basal Metabolic Rate
LWC	Low Work Capacity
HWC	High Work Capacity
RDA	Recommended Dietary Allowances
ATP	Adenosine Triphosphate
CP	Creatine Phosphate
FAO	Food and Agriculture Organization
WHO	World Health Organization
BMI	Body Mass Index
SD	Standard Division
WHR	Waist- Hip Ratio
PAL	Physical Activity Level
SPSS	Statistics package For Social Science
FNB	Food And Nutrition Board
CM	Centimeter
GM	Gram
KG	Kilogram
Kcal	Kilocalorie
Mg	Milligram
$\mu$ g	Microgram