



MERLY FISCAL-ARJONA, M.A.T.



# Functional Foods for Chronic Diseases

MERLY FISCAL-ARJONA, M.A.T.



www.delvepublishing.com

## **Functional Foods for Chronic Diseases**

MERLY FISCAL-ARJONA, M.A.T.

#### **Delve Publishing**

2010 Winston Park Drive,

2nd Floor

Oakville, ON L6H 5R7

Canada

www.delvepublishing.com

Tel: 001-289-291-7705

001-905-616-2116 Fax: 001-289-291-7601

Email: orders@arclereducation.com

#### © 2018 Delve Publishing

ISBN: 978-1-77361-255-3 (Hardcover)

This book contains information obtained from highly regarded resources. Reprinted material sources are indicated and copyright remains with the original owners. Copyright for images and other graphics remains with the original owners as indicated. A Wide variety of references are listed. Reasonable efforts have been made to publish reliable data. Authors or Editors or Publishers are not responsible for the accuracy of the information in the published chapters or consequences of their use. The publisher assumes no responsibility for any damage or grievance to the persons or property arising out of the use of any materials, instructions, methods or thoughts in the book. The authors or editors and the publisher have attempted to trace the copyright holders of all material reproduced in this publication and apologize to copyright holders if permission has not been obtained. If any copyright holder has not been acknowledged, please write to us so we may rectify.

# 00077598

Notice: Registered trademark of products or corporate names are used only for explanation and identification without intent of infringement.

Delve Publishing publishes wide variety of books and eBooks. For more information about Delve Publishing and its products, visit our website at www.delvepublishing.com.

# TABLE OF CONTENTS

	Preface	xi
1	Introduction to Dietary Plans For Chronic Diseases	1
	Dietary Plans For Prevention and Treatment of Chronic Diseases	
	Treating Cardiovascular Disease With Amaranth Oil	
	Evaluating The Cell Membrane Fatty Acid Composition In Individuals With Hypertension And Coronary Heart Disease	
	Treating And Preventing Diabetes Mellitus With Diet	20
	Using The Amaranth Grain In Combination With Arvs To Treat HIV/AIDS	27
2	Assessing Health Claims For Essential Foods	33
	Introduction	33
	Varying Nutritional And Health Claims	34
	Criteria To Demonstrate The Effects Of Essential Foods	37
	Required Evidence For Supporting A Health Claim	38
	Future Trends	40
	The Claim That Garlic Can Fight Cardiovascular Diseases	42
	Future Trends: Development of New Essential Foods	49
	Oxidative Stress, Diet and Cardiovascular Diseases	52
3	Diet For Prevention of Coronary Heart Disease	57
	Introduction	57
	The Diet For Preventing Sudden Cardiac Death	59
	Diet For Preventing Chronic Heart Failure	62
	Dietary Plans For Preventing The Development of Heart Disease	67
	Diet For Preventing Post-Angioplasty Restenosis	70
	Dietary Plan For Controlling Traditional Risk Factors	74
	Preventing Coronary Heart Disease Using The 'Mediterranean Diet'	79

ı	The Role Played by Antioxidants and Fat-Soluble Nutrients In Preventing Heart Disease		
		85	
	Introduction Essential Properties Of Vitamin E In Preventing Heart Disease	86	
	Essential Properties Of Vitamin D In Preventing Heart Disease	93	
	Essential Properties Of Vitamin D III Preventing Reart Disease Essential Properties Of Ubiquinone In Preventing Heart Disease	98	
		101	
	- Tutale trends		
5	Essential Foods For Managing Type 2 Diabetes	105	
	• Introduction	105	
	Whole Grains	108	
	• Legumes	113	
	• Nuts	115	
	Fenugreek	116	
	Allium Species	117	
	Gymnemasylvestre	117	
	Panux Genus	117	
	Mormodicacharantia	118	
	Fish And Seafood		
	Red Meat And Meat	120	
	Dairy Products		
	Sugar And Sugar Substitute		
	Alcohol		
	Other Essential Foods In Diabetes Management		
	A Natural Approach For Effective Prevention Against Type 2 Diabetes		
6	Essential Foods For Managing Obesity	131	
	Introduction		
	Carbohydrate Based Food		
	Protein Based Food And Components		
	Fats And Their Related Compounds		
	Fruits And Vegetables		
	Beverages		
	Water And Low Energy Ingredients		
	Sugar And Obesity		
	Calcium And Dairy Products		

	Additives, Ingredients And Inhibitors	148
	Dietary Plans For Obesity Management	149
	• Future Trends	153
7	Essential Foods For Cancer	
	. Introduction	157
	Cancer Of The Oral Cavity, Esophagus And Pharynx	159
	Nasopharyngeal Cancer	160
	Stomach Cancer	162
	Colorectal Cancer	163
	Cancer of the Liver	166
	Cancer of the Pancreas	166
	Lung Cancer	168
	Breast Cancer	169
	Prostate Cancer	170
	Foods That Increase Cancer Risk	170
	Essential Foods For Cancer	174
	Summary Of Anticancer Essential Foods	181
8	Essential Foods For Arthritis	185
	Introduction	185
	Omega-3 Fatty Acids	188
	Plant Seed Oils	189
	Calcium	191
	• Iron	192
	Vitamin B6	193
	Other Essential Foods And Ingredients In Arthritis Management and Prevention	194
	Special Diets And Arthritis	199
9	Essential Foods For Asthma	211
	Introduction	
	Antioxidants	213
	Vitamins (A, B-Carotene, C, D And E)	214
	Essential Minerals In Asthma	
	Dietary Triggers For Asthma	
	Diet Plans For Asthma Prevention	

		229
	Anti-Asthma Diet	
	Essential Foods For Asthma: A Dietary Approach For Managing Exercise Induced Asthma	230
	Approach For Managing Exercise Industry of Preventing Asthma	
	Dietary Management of Obesity In Fleveriting Conclusion	235
	Conclusion	
10	Dietary Fiber, The Overlooked	237
		237
	Introduction	238
	Introduction The Definition And Classification of Dietary Fiber	720
	The Definition And Classification  Fiber Intake Recommendations	220
	Weight Maintained And Health of The Gastrointestinal Tract	239
	Colorectal And Breast Cancer	241
	Tooth Wear And The Status of Impaired Dentition	242
	Interaction With Microelements And Drugs	243
	References	259
	Index	273
	Index	

### **Functional Foods for Chronic Diseases**

Diseases such as cancer, cardiovascular, diabetes, obesity and heart disease are referred to as Chronic because they tend to last for a period of 3 months or more according to the United States National Center for Health Statistics. These are diseases which cannot be cured through medication and cannot be prevented through vaccination. They have become a global epidemic in many developed nations of the world and this field of research has an unprecedented interest level. This book will tackle selected reviews on the current strategies in the treatment and prevention of chronic diseases by the use of the latest improvements in the nontraditional plants, herbal remedies and food additives. This book is composed of contribution from different scientist of various parts of the world in addition to the participants of the Essential Foods for the prevention and treatment of chronic diseases international conference. Essential Foods Center was the organizer of this conference and it was held on November 14th -15th 2005 in USA, Texas. The Main objective of this book is to present the contribution of various types of foods which we refer to as Essential foods in the treatment and prevention of chronic diseases by bringing together experts in the food industry, biology and medicine. This book will cover many articles which are intended to give the practical usage of food supplements and botanicals by experts in medicine globally in the case of hypertension, cancer etc.



Merly F. Arjona, M.A.T, is a full time Professor at Laguna State Polytechnic University, Siniloan, Laguna, Philippines. She graduated from the Laguna State Polytechnic University, Siniloan, Campus, with the degree of Master of Arts in Teaching, Major in Technology and Home Economics. Her Professional experience includes an assessor in different Hotel and Restaurant Competency in TESDA. She is an active member of Association of Administrators in Hospitality Hotel and Restaurant Management Educational Institution( AAHRMEI) and has attended seminars and trainings in Hotel and Restaurant Management. At present, she is the Associate Professor II at the LSPU. Her greatest joy at the moment is to share her knowledge, expertise and give prestige to her students.



