613.28 DIE

CONTENTS

I. Health Benefits

Historical Aspects	3
Dietary Fiber in Health and Disease: The South African Experience	11
The Structure of Dietary Fibre	26
Fiber in Foods	37
Fiber as Energy in Man	46
The Physiological Effects of Dietary Fiber	58
Modulation of Intestinal Development by Dietary Fiber Regimens	72
II. Lipids and Nutrient Metabolism	
Effect of Dietary Fiber on Alimentary Lipemia	87
Dietary Fiber and Lipid Absorption: Interference of Chitosan and Its Hydrolysates with	
Cholesterol and Fatty Acid Absorption and Metabolic Consequences in Rats	95
The Role of Viscostity in the Cholesterol-Lowering Effect of Dietary Fiber	106
Fat/Fiber Interactions: Effect on Colon Physiology and Colonic Cytokinetics	115
Cholesterol-Lowering Effects of Solubel Fiber in Hymans	126
Dietary Fiber, Carbohydrate Metabolism and Diabetes	137
Dietary Fiber and Protein Digestion and Utilization	146
III. Fiber and Cancer	
Fiber and Cancer: Prevention Research	159
Fiber and Cancer: Historical Perspectives	174
Dietary Fiber and Colon Cancer Risk: The Epidemiologic Evidence	183
Your Mother was Right-Eat Your Vegetables: The role of Plant Foods in Cancer	191
The Polyp Prevention Trial: Rationale and Design	219
ECP Trial of Fiber in Precancerous Lesion of the Large Bowel	226
Dietary Fiber and Digestive Tract Disorders	237
Dietary Fiber and the Pattern of Energy Intake	243
Effect of Dietary Fiber on Intestinal Microflora and Health	257
Dietary Fiber an Mineral Nutrition	267
Effects of Lignans and Other Dietary Estrogens	294
Phytic Acid and Other Nutrients: Are They Partly Responsible for Health Benefits of High Fib	er
Foods?	305
V. Fiber Effects/In Vivo and In Vitro Laboratory Models	
Comparative Aspects of Animal Models	321
Propionate as a Mediator of the Effects of Dietary Fiber	340
In Vitro Methods That Anticipate the Colonic Influence of Dietary Fibre	346
Fiber and Aspects of Lipid and Cholesterol Metabolism	353

In vitro and In Vivo Models for Predicting the Effect of Dietary Fiber and Starchy Food	ds on
Carbohydrate Metabolism	360
Animal Models of Obesity: Diet, Inactivity, and Genetics	378
Animal Models of Colon Cancer	406
Workshop Summaries	
Summary Report of dietary Fiber Analysis Workshop	419
Fiber and The GI Microflora	423
Dietary Fiber and Gastrointestinal Function	433
Design of Human Studies to Determine the Effect of Fiber on Serum Lipids in Relation	to Blood
Lipids, Fecal Bulking, Glycemic Control or Bodyweight	438
Short-Chain Fatty Acids-Research and Clinical Updates	441
Bile Acids	450
Resistant Starch	453
Dietary Fiber and Body Weight Management	459
Public Aspects	
Food Industry Perspective: Functional Properties and Food Uses of Dietary Fiber	467
Future Research in Dietary Fibre?	475
Index	481