

Contents

Introduction	1
Clinical material	1
Technique of peroral jejunal biopsy	3
Technique for electron microscopy	3
Comparison of histology, thick and thin ultramicrotome sections and immunofluorescence	4
Challenge studies	4
References	4
 Chapter 1. Cells of the Normal Mucosa	5
The enterocyte	5
Crypt cells	23
Precursor cells of the enterocytes	26
Goblet cells	29
Paneth cells	30
APUD cells	30
Theliolymphocytes	35
The lamina propria	39
Cells infiltrating the lamina propria	39
Schwann cells and unmyelinated nerve fibres	50
Endothelial cells	52
Fibrocytes and their fibrillar processes	56
References	58
Select bibliography	59
 Chapter 2. Coeliac Disease	61
Untreated	61
Comparison of adult and childhood coeliac disease	79
Gluten challenge in treated children with normal mucosa	79
Gluten challenge in children with partial repair of the mucosa	87
The correlation of structure and function in coeliac disease	91
Untreated coeliac disease	91
Gluten challenge after treatment with a gluten-free diet	92

References	93
Select bibliography	94
Chapter 3. Cow's Milk Protein Intolerance (CMPI)	97
Untreated	99
Cow's milk challenge	100
Histology and immunology	100
Ultrastructural observations	100
Clinical, morphological and immunological correlation	108
References	109
Chapter 4. Protein-Energy Malnutrition (P-EM)	111
Histology	111
Ultrastructure	112
Correlation of clinical and morphological data	126
References	128
Chapter 5. Miscellaneous	129
Malignancies	129
Fine structure of involved mucosa with IPSID	129
Fine structure of the mucosa in alpha-chain disease	132
Fine structure of uninvolved mucosa in lymphoma	137
Ultrastructural recognition of abnormal inflammatory cells	139
<i>Giardia lamblia</i>	139
Cysts	140
Whipple's disease	144
Acrodermatitis enteropathica	148
Multiple sclerosis	149
Crohn's disease	153
References	158
Subject Index	161