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5.5 Factors leading to insulin resistance5.6 Defining the function of the insulin cascade molecules through global knockouts; 5.7 Double heterozygous mice as models of polygenic forms of diabetes; 5.8 Defining tissue and/or organ relevance for the maintenance of insulin sensitivity; 5.9 Genetically modified mice to study modulators of insulin sensitivity; 5.10 Lipodystrophy versus obesity, the insulin resistance paradox; 5.11 Excess of nutrients as a cause of insulin resistance; 5.12 PPARs, key mediators of nutritional-regulated gene expression and insulin sensitivity; References
6 Insulin Resistance in Glucose Disposal and Production in Man with Specific Reference to Metabolic Syndrome and Type 2 Diabetes6.1 Introduction; 6.2 Measurement of insulin resistance; 6.3 Insulin-resistant states; 6.4 Conclusion and perspectives; References; 7 Central Regulation of Peripheral Glucose Metabolism; 7.1 Introduction; 7.2 Counter-regulation of hypoglycaemia - role of the CNS; 7.3 Brain regions involved in counter-regulation; 7.4 Glucosensing neurons; 7.5 Central control of peripheral organs involved in glucoregulation
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Sommario/riassunto

Diabetes is now one of the major causes of morbidity worldwide. In many cases, the onset of diabetes is progressive, developing via a condition of insulin resistance. This book considers the development of this condition, its consequences and clinical and therapeutic aspects. The book reviews the normal biology of insulin action on glucose, lipids and proteins. It considers the pathological basis for insulin resistance in animal models and humans, and discusses the influence of heredity, dietary factors and exercise. Clinical consequences including dyslipidaemia, hypertension and polycy