

1. Record Nr.	UNINA9910637716503321
Titolo	Fatigue in multiple sclerosis : background, clinic, diagnostic, therapy / / Iris-Katharina Penner, editor
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2023] ©2023
ISBN	9783031134982 9783031134975
Descrizione fisica	1 online resource (196 pages)
Disciplina	612.744
Soggetti	Fatigue Multiple sclerosis - Complications Fatiga Esclerosi múltiple Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Intro -- Preface -- Contents -- Part I: Background -- On the History of Fatigue -- References -- Further Reading -- Definitions, Epidemiology, and Etiological Factors -- 1 Definitions and Terminology -- 2 Prevalence and Significance of Fatigue -- 3 Demographic and Clinical Factors -- 4 Etiological Factors -- 4.1 Personality Traits -- 4.2 Autonomous Regulation -- 4.3 Endocrine Factors -- 4.4 Proinflammatory Cytokines -- 4.5 Attention Deficit Disorder -- 4.6 Structural and Functional Brain Changes -- 4.7 Summary of the Considerations on the Etiological Factors -- References -- Pathophysiology and Differentiation from Other Symptoms and Diseases -- 1 Introduction -- 2 Primary Fatigue -- 2.1 Structural and Functional Imaging -- 2.2 Neurophysiological Findings -- 2.2.1 Electroencephalography -- 2.2.2 Transcranial Magnetic Stimulation -- 3 Secondary Fatigue -- 3.1 Sleep Disorders -- 3.2 Other Causes -- 4 Summary and Outlook -- References -- Immunopathology and Pathogenesis -- 1 Introduction -- 2 Immunopathology and Pathomorphological Changes in MS -- 2.1

Demyelination -- 2.2 Gray Matter Lesions -- 2.3 Axonal Lesions and Neurodegeneration -- 3 Inflammatory Mediators and Fatigue in MS -- 4 Pathological Patterns of Damage and Fatigue in MS -- 5 Neuroendocrine Regulatory Disorders in MS -- 6 Multidimensionality of Fatigue and Damage Processes in MS -- 7 Summary -- References -- Part II: Clinic -- Motor Performance Fatigability in MS -- 1 Introduction -- 2 Clinician and Patient Perspective -- 3 Gait-Related Motor Performance Fatigability -- 3.1 Linear Approaches for Gait Analysis -- 3.1.1 Distance Walked Index -- 3.1.2 Deceleration Index -- 3.2 Nonlinear Approaches for Gait Analysis -- 3.2.1 Local Dynamic Stability -- 3.2.2 Fatigue Index Kliniken Schmieder. 4 Motor Performance Fatigability and Perceived Fatigability -- 5 Interactions between Sustained Cognitive or Motor Activity and Performance Fatigability -- 6 Motor Performance Fatigability and Trait Fatigue -- 7 Motor Performance Fatigability and Trait Self-Control -- 8 Pharmacological and Non-pharmacological Treatment of Motor Performance Fatigability -- 9 Summary -- References -- Cognitive Fatigue -- 1 Introduction -- 2 Definition of Cognitive Fatigue -- 3 Neuroanatomical Correlates of Cognitive Fatigue -- 4 Cognitive Fatigue and Cognition -- 5 The Role of Attention in the Diagnosis of Fatigue -- 6 Summary -- References -- Personality Factors and Motivation -- 1 Introduction -- 2 Personality and MS -- 3 Personality Trait Assessment Instruments -- 4 Motivation -- 5 Behavioral Aspects: Coping and Disease Management -- 6 Conclusion -- References -- Fatigue and Depression -- 1 Introduction -- 2 Symptom Overlap Between Fatigue and Depression -- 3 Depression and Fatigue in MS from a Diagnostic Perspective -- 4 Depression and Fatigue in MS from a Research Perspective: Pathophysiology -- 5 Depression and Fatigue in MS from a Therapeutic Perspective -- 6 Summary -- References -- Sleep and Wake Disturbances -- 1 Epidemiology -- 1.1 Sleep Diagnostics -- 2 Sleep-Wake Disorders -- 2.1 Insomnia -- 2.2 Restless Legs Syndrome -- 2.3 Sleep-Disordered Breathing -- 2.4 Excessive Daytime Sleepiness and Fatigue -- 3 Nocturia -- 3.1 Other Sleep and Wake Disturbances -- References -- Part III: Diagnostics -- Clinical Assessment Tools for Fatigue -- 1 Introduction -- 2 Neurological Interview -- 3 Fatigue Diaries -- 4 Fatigue Questionnaires -- 5 Neurophysiological Possibilities of Detection -- 6 Summary -- References -- Neuroimaging and Fatigue -- 1 Macrostructural Imaging Correlates of Primary Fatigue. 1.1 Relevance of Inflammatory White Matter Lesions -- 1.2 Changes in Global and Regional Brain Volume -- 2 Microstructural Imaging Correlates of Primary Fatigue -- 3 Functional Imaging Correlates of Primary Fatigue -- 4 Functional Imaging Correlates of Fatigability -- 5 Secondary Fatigue and Imaging Findings -- 6 Summary and Outlook -- References -- Electrophysiology and Fatigue -- 1 Introduction -- 1.1 Fatigue and Exhaustibility -- 1.2 Heterogeneity of Studies on Exhaustibility -- 1.3 Peripheral and Central Fatigue -- 1.4 Electrophysiological Methods for the Investigation of Fatigue -- 2 Electrophysiological Findings in Healthy Subjects -- 2.1 Corticospinal Excitability -- 2.2 Intracortical Excitability -- 2.3 Cortical Silent Period -- 2.4 Potential Influencing Factors -- 3 Electrophysiological Findings in MS Patients -- 3.1 Corticospinal Excitability -- 3.2 Intracortical Excitability -- 3.3 Cortical Silent Period (CSP) -- 3.4 Event-Related Potentials -- 3.5 "Event-Related Desynchronization" -- 3.6 High Frequency Oscillations -- 3.7 Fronto-Thalamic Networks -- 4 Effects of Therapeutic Approaches on Electrophysiological and Clinical Parameters in MS Patients -- 4.1 Pharmacological Therapeutic

Approaches -- 4.2 External Brain Stimulation -- 4.2.1 Transcranial Direct Current Stimulation (tDCS) -- 4.2.2 Repetitive Transcranial Magnetic Stimulation (rTMS) and Intermittent Theta Burst Stimulation (iTBS) -- 5 Summary -- References -- Expert Opinion and Medicolegal Assessment -- 1 Basics of Expert Opinions -- 2 Objectification of Fatigability -- 2.1 Fundamental Aspects -- 2.2 Value of Questionnaires -- 2.3 Objectification of Cognitive Fatigability -- 2.4 Objectification of Motor Fatigability -- 2.4.1 Upper Extremities -- 2.4.2 Lower Extremities -- 3 Symptom Validity Assessment -- 3.1 Basics.
3.2 Fatigue-Related Symptom Validity Assessment -- 3.2.1 Medical History -- 3.2.2 Cognitive Fatigability -- 3.2.3 Motor Fatigability -- 3.2.4 Clinical Symptom Validation -- 4 Assessing Occupational Capacity -- 4.1 Quantification of Fatigability According to ICF -- 5 Assessing Driving Ability -- 5.1 Basics -- 5.2 Driving with Fatigue Symptoms -- 5.2.1 Orientation towards Self-Perception -- 5.2.2 Orientation towards Occupational Capacity -- 5.2.3 Orientation to Daytime Sleepiness -- References -- Part IV: Therapy -- Disease Modifying Immunotherapies and Fatigue -- 1 Immunotherapies for Mild/Moderate Forms of MS -- 1.1 Interferons -- 1.2 Glatiramer Acetate -- 1.3 Dimethyl Fumarate -- 1.4 Teriflunomide -- 2 Immunotherapies for (Highly) Active Forms of MS -- 2.1 Fingolimod -- 2.2 Cladribine -- 2.3 Natalizumab -- 2.4 Alemtuzumab -- 2.5 Ocrelizumab -- 2.6 Rituximab -- 3 Classic Immunosuppressants -- 4 New Immunotherapeutics in MS -- 4.1 Siponimod -- 4.2 Ozanimod -- 4.3 Ponesimod -- 5 Summary -- References -- Symptomatic Drug Treatment of Fatigue -- 1 Introduction -- 2 Symptomatic Therapeutic Approaches -- 3 Drug Treatment Approaches -- 4 Immunological Treatment Approaches -- 4.1 Cytokines -- 5 Immunosuppressive Therapies -- 5.1 Cortisone -- 6 Endocrine Treatment Approaches -- 6.1 Hydrocortisone/Fludrocortisone -- 6.2 ACTH -- 6.3 Alfacalcidol -- 7 Neurotransmitter-Oriented Treatment Approaches -- 7.1 Amantadine -- 7.2 Ketamine -- 7.3 Modafinil -- 7.4 Ondansetron -- 8 Treatment Approaches with Channel Blockers -- 8.1 Fampridine (Syn. 4-Aminopyridine) -- 9 Treatment Approaches with Stimulants -- 9.1 L-Amphetamine -- 9.2 Methylphenidate -- 10 Antidepressant Therapy Methods -- 10.1 Selective Serotonin Reuptake Inhibitors (SSRI) -- 11 Other Drug Therapy Approaches -- 11.1 Ginseng -- 11.2 N-Acetylcysteine.
11.3 Pemoline -- 11.4 Carnitine -- References -- Non-drug Treatment Approaches and Neurorehabilitation -- 1 Introduction -- 2 Exercise Therapy -- 3 Cryotherapy -- 4 Training and Empowerment -- 5 Cognitive Behavioral Therapy -- 6 Nutrition -- 7 Non-invasive Brain Stimulation -- 8 Neurorehabilitation -- 9 Summary -- References.
