

Table of Contents

Contributors	VII	17. The EEG in Cerebral Inflammatory Processes <i>Barbara F. Westmoreland</i>	259
Preface to the First Edition	IX	18. Cerebrovascular Disorders and EEG <i>Ernst Niedermeyer</i>	275
Preface to the Second Edition	XI	19. EEG and Old Age <i>Ernst Niedermeyer</i>	301
1. Introduction to the Neurophysiological Basis of the EEG and DC Potentials <i>Erwin-Josef Speckmann and Christian E. Elger</i>	1	20. EEG and Dementia <i>Ernst Niedermeyer</i>	309
2. Dynamics of EEGs as Signals of Neuronal Popu- lations: Models and Theoretical Considerations <i>Fernando H. Lopes da Silva</i>	15	21. Degenerative Disorders of the Central Nervous System <i>Ernst Niedermeyer and Sakkubai Naidu</i>	317
3. Biophysical Aspects of EEG and Magnetoence- phalogram Generation <i>Fernando H. Lopes da Silva and Anton Kamp</i>	29	22. The EEG in Infantile Brain Damage and Cere- bral Palsy <i>Ernst Niedermeyer</i>	339
4. Technological Basis of EEG Recording <i>Anton Kamp and Fernando H. Lopes da Silva</i>	43	23. Craniocerebral Trauma <i>Erik Ruml</i>	347
5. EEG Recording and Operation of the Apparatus <i>Edward L. Reilly</i>	57	24. Metabolic Central Nervous System Disorders <i>Ernst Niedermeyer</i>	369
6. The EEG Signal: Polarity and Field Deter- mination <i>Ernst Niedermeyer</i>	79	25. Cerebral Anoxia <i>Gerhard Bauer</i>	383
7. The EEG Laboratory: Patient-Technician Inter- action, Design, and Management <i>Edward L. Reilly</i>	85	26. Coma and Brain Death <i>Gerhard Bauer</i>	391
8. EEG and Clinical Neurophysiology <i>Ernst Niedermeyer</i>	95	27. Epileptic Seizure Disorders <i>Ernst Niedermeyer</i>	405
9. The Normal EEG of the Waking Adult <i>Ernst Niedermeyer</i>	97	28. Nonepileptic Attacks <i>Ernst Niedermeyer</i>	511
10. Sleep and EEG <i>Ernst Niedermeyer</i>	119	29. The EEG in Patients with Migraine and Other Forms of Headache <i>Ernst Niedermeyer</i>	517
11. Maturation of the EEG: Development of Waking and Sleep Patterns <i>Ernst Niedermeyer</i>	133	30. Psychiatric Disorders and EEG <i>Joyce G. Small</i>	523
12. EEG Patterns and Genetics <i>Ernst Niedermeyer</i>	159	31. Psychology, Physiology, and the EEG <i>Morton D. Low</i>	541
13. Nonspecific Abnormal EEG Patterns <i>Frank W. Sharbrough</i>	163	32. EEG in Aviation, Space Exploration, and Diving <i>James D. Frost, Jr.</i>	549
14. Abnormal EEG Patterns (Epileptic and Paroxys- mal) <i>Ernst Niedermeyer</i>	183	33. EEG and Neuropharmacology – An Experimen- tal Approach <i>Christoph Stumpf and Gertrud Gogolák</i>	553
15. Activation Methods <i>Takeo Takahashi</i>	209	34. EEG, Drug Effects, and Central Nervous System Poisoning <i>Gerhard Bauer</i>	567
16. Brain Tumors and Other Space-Occupying Lesions (with a Section on Oncological CNS Complications) <i>Mariella Fischer-Williams</i>	229	35. Toxic Encephalopathies <i>Gisela Freund and Ernst Niedermeyer</i>	579

36. Nasopharyngeal, Sphenoidal, and Other Electrodes <i>Edward L. Reilly</i>	587	46. Event-Related Potentials: Methodology and Quantification <i>Fernando H. Lopes da Silva</i>	763
37. Depth Electroencephalography <i>Ernst Niedermeyer</i>	593	47. Visual Evoked Potentials <i>Gastone G. Celesia</i>	773
38. Electrocorticography <i>Ernst Niedermeyer</i>	613	48. Auditory Evoked Potentials <i>Gastone G. Celesia and Madeleine H. Grigg</i>	797
39. Special Techniques of Recording and Transmission <i>Anton Kamp and Fernando H. Lopes da Silva</i>	619	49. Somatosensory Evoked Potentials <i>C. William Erwin</i>	817
40. Prolonged EEG Monitoring in the Diagnosis of Seizure Disorders <i>Roger J. Porter</i>	635	50. Evoked Potentials in Infancy and Childhood <i>Allan Krumholz</i>	835
41. EEG Monitoring during Carotid Endarterectomy and Open Heart Surgery <i>Warren T. Blume</i>	645	51. Neuroanesthesia and Intraoperative Neurological Monitoring <i>Robert W. McPherson</i>	849
42. Contingent Negative Variation <i>Joseph Tecce and Lynn Cattanach</i>	657	52. Introduction to Computer Analysis in Electroencephalography <i>Donald O. Walter</i>	863
43. Polygraphy <i>Anton Kamp and Fernando H. Lopes da Silva</i>	681	53. EEG Analysis: Theory and Practice <i>Fernando H. Lopes da Silva</i>	871
44. Polysomnography: Principles and Applications in Sleep and Arousal Disorders <i>Roger J. Broughton</i>	687	54. Computer-Assisted EEG Diagnosis: Pattern Recognition in EEG Analysis, Feature Extraction, and Classification <i>Fernando H. Lopes da Silva</i>	899
45. Neonatal Electroencephalography <i>Cesare T. Lombroso</i>	725	Index	921