Atlas of Electroencephalography, 3rd Edition

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ABSTRACT — Electroencephalography (EEG) is the recording of the electrical activity of the brain. EEG is a reliable test to assess cerebral function. It aids in diagnosis, classification, and management of patients with epilepsy. It also has practical uses in conditions other than epilepsy. Moreover, it is harmless and inexpensive. EEG is an important tool for evaluating patients with epilepsy. It may help classify the syndrome, identify the likely source of focal seizures, and confirm a diagnosis of status epilepticus. EEG is therefore helpful when selecting appropriate antiepileptic drugs for patients with epilepsy, is valuable for diagnosis and management of status epilepticus as well as predicting the prognosis in epilepsy syndromes, and, is finally useful when localizing an area for resection in surgery candidates. In addition, despite advances in neuroimaging, EEG remains a valuable tool in the evaluation of stuporous and comatose patients. A systematic approach is essential for EEG interpretation, and when combined with good clinical judgment, it will improve diagnostic sensitivity and specificity and may improve therapeutic outcomes. This EEG atlas is designed as a practical guide for neurology residents, neurologists, and epileptologists, so that they may appropriately identify normal and abnormal findings, while reading an EEG. By reading and reviewing the relevant chapter of this well-organized atlas, that includes many EEG images, the reader will also learn how to report an EEG finding. We hope that this atlas fills an unmet need, and leads to improved patient care.

Key words: EEG techniques, normal EEG, epileptiform EEG abnormalities, non-epileptiform EEG abnormalities, artifacts

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