advantages" to other patients and the general public. Perhaps they'll put in a word for wrist restraints as well, while they are at it.

It would be hard to find a psychiatrist who would not find something of interest in this book, although the price may deter private buyers.

DAVID GOLDBERG

Biomechanics of the Spine: Clinical and Surgical Perspective. Edited by VK GOEL AND JN WEINSTEIN. (Pp 295; Price: Not Stated). London, Wolfe Publishing Ltd, 1990. ISBN 0-8493-6649-6.

This book, edited by a basic engineer in biomedical engineering and an osteopath, has been written to provide information for basic researchers and clinicians alike, and to make the practising surgeon and clinician aware of the large amount of biomechanical research that has gone into the spine in recent years. It should be more correctly called "Biomechanics of the Lumbar Spine"; there is little on the thoracic spine and nothing on the cervical spine. Eighty per cent of Western population at some time in their life will have an acute episode of low back pain which will cause a varying amount of debility and loss of time from work. They also review critically many of the "received" truths about the treatment of the lumbar spine and analyse the effects of exercises, orthoses and spinal stabilisation in the laboratory setting. They remind the reader that in the United States there are 200,000 lumbar laminectomies performed a year, with a poor outcome (published) of 10-20%. Clearly, if one in five operations do not produce a good result, radical thinking has to go into the subject.

There are ten chapters and 280 pages. The line diagrams are clear and demonstrate the points well. The chapter on the anatomy of the lumbar spine is good. It is clear that their own particular research interests are on the biomechanics of the intact ligamentous spine and the biomechanics of the operated spine. These are perhaps the largest and most detailed chapters in the book. In contrast, the chapter on the mechanism of pain is five pages long and does not include all the most recent thoughts on the mechanisms of pain production, for example they quote Melzack and Wall but do not refer to the most recent edition of Wall's book and the current thoughts on pain.

The descriptions of the surgical approaches are a very good basic introduction to the clinician who is about to refer his patient for such a procedure. It demonstrates how rapidly the field of spinal surgery is moving and, to those who qualified more than ten years ago, shows how many other procedures beyond a midline laminectomy are available for lumbar spine surgery.

The role of fusion in disc disease is well reviewed. They point out that many people are subject to a fusion as well as a disectomy for lumbar disc disease and show that there is no good clinical evidence that the fusion is the ideal approach in disc disease, rather the fused segment may cause secondary deterioration at disc levels above and below the fused segment.

The treatment of idiopathic scoliosis is discussed and this is the only excursion from the lumbar spine.

The biomechanics are well described and

they limit the mathematics to appendices so that the average clinician does not go to sleep immediately he begins to read the chapter.

ALAN CROCKARD

Current Practice of Clinical Electroencephalography 2nd Edition. Edited by DD DALY AND TA PEDLEY. (Pp 824; Price: \$102.00). New York, Raven Press, 1990. ISBN 0-88167-635-7.

Since the first edition of this book appeared in 1979 there has been notable progress in the field and the literature has burgeoned. Clearly an over-view of the subject is now required and this book provides it admirably. It is approaching twice the length of its predecessor, the number of chapters and contributors likewise. The scope is appropriately increased to include sections on intracranial recording, monitoring, both long-term and intra-operative, sleep, evoked responses of the main modalities including a chapter specifically on multiple sclerosis.

There has been another change, the first edition was largely aimed at those in training, particularly with the American Boards in mind. This edition takes a much wider view with the editors stating modestly that, "it should also serve as an initial reference source for EEG practitioners". The succinct introduction by John R. Knott one of the most notable teachers in the field, acts as a signpost not only as to what it contains but also how the beginner may direct his efforts. In this context the two chapters on an orderly approach to the normal and the abnormal tracings are noteworthy. Then follows chapters which form the basis of ordinary EEG practice, on epilepsy, focal and generalised brain disorders, coma and death. They present a review often with a valuable critique of the literature. An epilogue by the editors might usefully have been longer but perhaps this reflects their exhaustion at having completed excellently a monumental task.

The standard of production is good as would be expected from these publishers. The quality of paper used to provide many well produced illustrations mean that the tome weighs 3 kilograms! It represents value for money and is warmly recommended.

DF SCOTT

Pathophysiology of Development and Rupture of Cerebral Aneurysms Supplement 48. By HANS-JAKOB STEIGER. (Pp 57; Price: DM 77, Subscribers to "Acta Neurochirurgica DM 70). 1990. Wien, Springer-Verlag. ISBN 3-211-82192-9.

This excellent monograph briefly reviews the current theories of causation of aneurysms and develops Dr Steiger's concept of aneurysmal pathophysiology derived from the experimental work undertaken by himself and others and discusses the part played by various theoretical considerations.

This book is essentially for researchers in arterial flow patterns and he gives a detailed analysis of the flow patterns of non-Newtonian fluid and demonstrates the appropriateness of Reynold's qualification of Poiseuille's equation under experimental

conditions. Dr Steiger develops the experimentally derived hypothesis that the angle between the feeding artery and the aneurysm axis follows certain rules which determine the direction of the aneurysm fundus. He continues with a geometric analysis of the relationship between aneurysm and the parent artery in patients, both angiographically and intraoperatively and concludes that there is a set of typical angles between different cerebral arteries and aneurysmal axes. Typically, these occurred between the terminal carotid, its branches and the aneurysmal axes but there was less congruence between aneurysms affecting the anterior communicating and middle cerebral artery complexes. Whilst the author questions whether the risk of rupture of an aneurysm is proportional to the surface area or volume of an aneurysm, interestingly he makes no mention of the natural history of giant aneurysms.

Dr Steiger concludes by postulating a series of events in the formation of aneurysms and their eventual rupture. He describes the initial high shear stresses at the apices of bifurcations: further growth occurs by passively yielding to the blood pressure. Focal weakness of the aneurysmal wall may lead to a compensatory bulge or loculus, and finally he discusses the possible mechanical effects of turbulence and reflection of the pulse wave within the arterial tree.

The illustrations are clear although some of the diagrams are difficult to interpret.

This well written monograph provides an essential basis for further research into aneurysmal evolution and flow phenomena within aneurysm and their parent vessels.

MICHAEL R GOODING

Motor Disturbances II (2nd Congress of the International Medical Society of Motor Disturbances—Rome, Italy 2-4 June 1988). Edited by A BERARDELLI, R BENECKE, M MANFREDI AND CD MARSDEN. (Pp 440; Price: £50.00). Sidcup, Harcourt Brace Jovanovich Ltd. 1990. ISBN 0-12-089445-9.

This book contains an edited selection of papers delivered at the second Congress of the International Medical Society of Motor Disturbances, held in Rome in 1988. The main themes of the Rome congress were cortical stimulation, akinesia, the neurophysiology of cranial movement disorders, weakness and upper motor neurone involvement and neuro-imaging in motor disturbances.

The book opens with an excellent chapter by Rothwell, Day, Thompson and Marsden from the MRC Human Movement and Balance Unit in which the physiology of electrical and magnetic stimulation of the human brain is explained. Bartholow in 1874 was the first to demonstrate electrical excitability of the human cortex in a woman who had an open scalp ulcer over the parietal bones as a result of friction from a piece of whalebone in her wig. The ulcer had eroded the skull over a two inch diameter and the pulsations of the brain were clearly seen. Bartholow was able to demonstrate the insensibility of the dura and brain substance to the insertion of needles and that stimulation led to movements of the contra lateral side of the body. The strongest stimuli, however, caused the patient to have an epileptic seizure!