

# All you wanted to know about the autonomic nervous system (but were afraid to ask)

Autonomic Neurology

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This book does what it says on the box (sleeve), and is ‘... a focused approach to the pathophysiology, diagnosis and management of the most common autonomic disorders that may present to the clinical neurologist’. It is foremost a useful book: it is up-to-date, it is comprehensive (with references lists where appropriate for further reading), it is full of practical approaches and clinical experience, it is easy to read, and it is easy to find what you want by through the references, the index or the ‘Key Points’ at the end of each chapter. The birth place of this book is the Mayo clinic in Minnesota, USA but the information and clinical wisdom it contains are universally applicable.

The first section of the book details the functional and anatomical organisation of the autonomic nervous system, pharmacology and systematic tests for aspects of autonomic function (and dysfunction). Anatomically this starts with the central autonomic integrative centres, central ‘autonomic sensing organs’ in the hypothalamus and brain stem, and includes conscious appreciation of autonomic signalling. Next described are the parasympathetic and sympathetic outputs, anatomical organisation and synaptic transmitters. The complexity of the system is explained and illustrated in an understandable way, and I found myself flicking back to this section later in the book to ensure that I understood the biological explanations for clinical disease and symptoms. The Pharmacology section deals with autonomic neurotransmitters and of the drugs used in autonomic nervous system treatment. This section ends with an excellent approach to the evaluation of autonomic function, and worked examples of patients’ results.

The second section is entitled ‘Pathophysiology and management of autonomic disorders’. Each chapter describes a clinical entity, and its

diagnosis management and underlying causes. Common conditions that are covered are in chapters on Orthostatic Hypotension, Postural Tachycardia Syndromes (POTS)—a particularly useful chapter, Syncope, Excess sweating (we are reminded that there is sweating driven by emotion and by temperature, as well as rarities such as Cold Induced Hyperhidrosis), bladder and bowel and sexual autonomic dysfunction (with one foot firmly in the real world with common aetiology and practical treatments foremost in the text). Chapters are also devoted to the rare but important to diagnose phenotypes of Baroreflex failure and Autonomic Hyperactivity.

The final section is entitled ‘Common Neurologic Autonomic Disorders’. Again weight is given to the most common conditions and to those rare conditions in which diagnosis is important they are treatable. Conditions in which autonomic features play a significant role, for example, Multiple System Atrophy, are covered with descriptions of diagnostic approaches and of therapies. Progressive autonomic neuropathies of known cause, for example, amyloid and diabetes, are described, again with excellent clinical description of diagnostic features, tests to use, clinical scenarios and treatment options. The very rare Mendelian sensory neuropathies have their own chapter, which despite being brief is comprehensive. And there are chapters on autoimmune conditions, those affecting the central nervous system (not covered elsewhere in the book), and a very welcome chapter on disorders of chronic pain which have autonomic features as part of the phenotype.

This is a good book, it is comprehensive, it is useful, it has no major omissions, and given the wealth of clinical experience contained within its covers, it will age well. This is an essential and welcome addition to our knowledge of the treatment of human autonomic nervous system disease.

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