

# Part I

## First Study the Science, Then Practice the Art

Leonardo da Vinci

Part I is the first of three parts that constitute this volume on the nature and treatment of the human stress response. This series of chapters is dedicated to providing the reader with a comprehensive introduction to stress phenomenology. The need to adhere to da Vinci's urgings to study the science before we practice the art is a virtual imperative in the case of human stress. The human stress response represents the ultimate intertwining of physiology and psychology. One cannot understand nor fully appreciate the stress response without a working knowledge of both. Thus we begin.

Chapter 1 is entitled "The Concept of Stress." It provides the reader with a working definition of the stress response and related term and concepts derived from the Selyean tradition.

Chapter 2, entitled "The Anatomy and Physiology of Human Stress" is a functional review of the core anatomical substrates and physiological mechanisms that constitute human stress. Contained in this chapter, the reader will also find a unique "systems' model" that will be used throughout the text to demonstrate the phenomenology, measurement, and treatment of human stress. In addition, the reader will find a "multi-axial" flow chart that should prove of value in better understanding various interacting physiological mechanisms.

Chapter 3 is entitled "The Link from Stress Arousal to Disease." It examines major models of target organ pathogenesis, i.e., the mechanisms that link stress arousal to disease.

Chapter 4 provides an introductory review of putative stress-related diseases. While the reviews are by no means comprehensive, they should serve as a useful introduction to core aspects of psychosomatic medicine.

Chapter 5 addresses the measurement of human stress. Though less enigmatic than in earlier years, the measurement of human stress remains a most challenging endeavor fraught with pitfalls than can bias or even cast serious epistemological doubt on the entire field.

Chapter 6 "Personologic Diathesis" introduces the somewhat novel idea that human personality can serve to buffer or accentuate exposure to psychosocial stressors. In this chapter, we introduce the work of Theodore Millon, one of the world's

greatest personologists and apply his work to suggest that there may be value in understanding that various personality styles may actually have diatheses, or vulnerabilities, related to the manifestation of the stress response.

Finally, Chap. 7 introduces a rather new topic to the mainstream study of human stress, i.e., human resilience. Resilience is certainly timely and has attracted the interest of a wide variety of scholars and clinicians.