He reasoned that if stress could cause this in his experimental animals perhaps it played a role in their clinical counterparts, which he labeled "Diseases of Adaptation". The crux of Selye's thesis was rooted in the belief that disease resulted from some threat that caused change because the body could not successfully cope with or adapt to the challenge. This concept was first proposed by Claude Bernard, the 19th century French physiologist who emphasized that good health depended on the ability of the organism to maintain the constancy of the milieu intérieur (internal environment). By this he meant the concentration of numerous substances in blood and tissue fluids, acid-base balance, body temperature, blood pressure, heart rate and a host of other chemical and physical properties that must be maintained within fairly narrow limits whenever anything threatens to change the status quo.

Fifty years later, Walter Cannon called the coordinated physiologic processes responsible for maintaining this stability "homeostasis", from the Greek homoio, meaning similar, and stasis, the ability to stay static or the same. Cannon also showed that fear, rage and other distressful emotions disrupted homeostasis. This was due to widespread endocrine and nervous system responses that were designed to facilitate life saving "fight or flight" responses.

Shunting of blood away from the gut to the arms and legs provided more strength for combat or speed in fleeing from an attacker. A surge of sugar from the liver supplied energy, quickened blood clotting prevented loss from lacerations, a rise in blood pressure and heart rate increased blood flow to the brain to improve decision making, dilated pupils extended the range of vision, and a host of other things happened that would have been purposeful for primitive man faced with some sporadic physical threat.

However, these are of little value in responding to the chronic emotional challenges that characterize contemporary stress. Repeatedly invoked, it is not hard to understand how such ancient responses could contribute to an increased incidence of hypertension, stroke, peptic ulcer or muscle spasm.