The analysis of cortisol levels in human hair constitutes a novel method in the field of biopsychosocial stress research. In contrast to previous assessment strategies reflecting short-term cortisol secretion, hair analysis is assumed to allow provision of a retrospective calendar of cumulative cortisol exposure over periods of six to nine months. A number of studies will be reviewed that hair cortisol deposition is altered in a number of clinical conditions, including depression, posttraumatic stress disorder, alcoholism, general anxiety disorder, Addison’s disease and Cushing’s disease. Furthermore, the considerable individual stability of cortisol levels in human hair and its potential as an early indicator of myocardial infarct provides researchers and clinicians with a useful endocrine assessment tool. Extending the analysis of human hair extracts to a steroid panel (including cortisone, testosterone, DHEA, DHEAs and more) will likely lead to the incorporation of this method into large-scale epidemiological studies.