The objective measurement of pain remains elusive, and various modalities have been proposed to quantify it. One such modality is the Surgical Pleth Index, and this parameter is indicative of the hemodynamic responses to nociceptive stimulation. Based on an algorithm that analyzes plethysmographic pulse amplitude and pulse interval, it correlates well with the autonomic responses to pain. It is represented by a number that changes in proportion to such nociceptive responses, and when used in conjunction with electroencephalographic monitoring (BIS/Entropy), it can guide the clinician in maintaining the proper balance between hypnosis and analgesia.