

Characteristics of the stage of general anesthesia

		Stage of Anesthesia									
		I		II		III				IV	
						Plane					
						1	2	3	4		
System Affected	Characteristic Observed					Light	Medium	Deep			
Cardiovascular	Pulse <sup>a</sup>	Tachycardia				Progressive bradycardia				Weak or imperceptible	
	Blood pressure <sup>a</sup>	Hypertension				Normal		Increasing hypotension		Shock level	
	Capillary refill	1 s or less				Progressive delay				3 s or longer	
Respiratory	Dysrhythmia probability	+++	+++	++	+			++	++	++++	
	Respiratory rate <sup>a</sup>	Irregular or increased				Progressive decrease				Slow irregular	
	Respiratory depth <sup>a</sup>	Irregular or increased				Progressive decrease				Irregular	
	Mucous membrane, skin color	Normal						Cyanosis		Pale to white	
	Respiratory action	May be breath holding				Thoracoabdominal, abdominal				Diaphragmatic	
	Cough reflex	++++	+++	+	Lost					Ceased	
	Laryngeal reflex	++++ May vocalize				Lost					
	Intubation possible	No	Yes								
	Gastrointestinal	Salivation	++++	+++	+	Diminished, absent, except in ruminants				Absent	
		Oropharyngeal reflex	++++	+++	+	Lost					
Vomition probability		+++	+++	+	Very slight						
Reflux (regurgitation) potential		None				Increases with relaxation				++++	
Ocular	Tympany (rumen, cecum)	None				Potential increases with duration of anesthesia					
	Pupils	Dilated				Normal or constricted, progressive dilation				Acutely dilated	
	Corneal reflex	Normal		+++			Diminishes, lost (horses may persist)				Absent
	Lacrimation	Normal		+++	+	Diminishes, absent				Absent	
	Photomotor reflex	Normal		+++	+	Diminishes, absent				Absent	
	Palpebral reflex	Normal		+++	+	Diminishes, absent				Absent	
	Eyeball position	Normal		Variable		Ventromedial in dogs and cats or central					
	Nystagmus	++++ Especially horses and cows						+		None	
Musculoskeletal	Jaw tone	++++	++++			Decreased, minimal				Lost	
	Limb muscle tone	++++	++++			Decreased, minimal				Lost	
	Abdominal muscle tone	++++	++++	++	Decreased, minimal				Lost		
	Sphincters (anus, bladder)	May void				Progressive relaxation				Control lost	
Nervous	Sensorium	+++	+			Lost					
	Pedal reflex	++++	++++	Decreased	Absent						
	Reaction to surgical manipulation	++++	++++	+	None						

<sup>a</sup>Surgical stimulation causes increased heart rate, blood pressure, and respiratory rate via autonomic responses that persist in plane 2. Vagal reflexes due to visceral traction persist in plane 3.

+ to ++++ = degree present.