FORE-SIGHT ELITE®
Absolute Tissue Oximetry

Incidence of cerebral desaturation events in various clinical settings using FORE-SIGHT® and other cerebral oximeters

Incidence of Cerebral Desaturation Events	Desaturation Definition	Type of Procedure	Citation
73%	$SctO_2$ < 60%	Aortic arch surgery	Fischer GW et al. **Noninvasive cerebral oxygenation may predict outcome in patients undergoing aortic arch surgery.** *J Thorac Cardiovasc Surg.* 2011; 141(3):815-21.
60%	N/A	Cardiac surgery	Fedorow C et al. **Cerebral monitoring to optimize outcomes after cardiac surgery.** *Curr Opin Anaesthesiol.* 2010 Feb; 23(1):89-94.
90%	rSO_2 <50%	Cardiac surgery	Yao FS et al. **Cerebral oxygen desaturation is associated with early postoperative neuropsychological dysfunction in patients undergoing cardiac surgery.** *J Cardiothorac Vasc Anesth.* 2004 Oct; 18(5):552-8.
25% with shunts 3.9% without	$SctO_2$ <55%	Carotid endarterectomy	De Naeyer S et al. **Non-invasive absolute cerebral oximetry and intraluminal shunting during carotid endarterectomy.** *Presented at American Society of Anesthesiologists Annual Meeting 2010 # A398.*
30% control 26% intervention	Desaturation score > 3000s (rSO_2 < 50% x time)	Coronary artery bypass graft	Slater JP et al. **Cerebral oxygen desaturation predicts cognitive decline and longer hospital stay after cardiac surgery.** *Ann Thorac Surg.* 2009 Jan; 87(1):36-44; discussion 44-5.
56% intervention	rSO_2 > 30% drop from baseline > 1 min	Coronary bypass surgery	Murkin JM et al. **Monitoring brain oxygen saturation during coronary bypass surgery: a randomized, prospective study.** *Anesth Analg.* 2007 Jan; 104(1):51-8.
45.9 ± 134 (min-%)	$SctO_2$ < 55% for AUT	EP lab	Miller MA et al. **Activation and entrainment mapping of hemodynamically unstable ventricular tachycardia using a percutaneous left ventricular assist device.** *J Am Coll Cardiol.* 2011; 58(13):1363-71.
26%	rSO_2 < 75% of baseline or < 80% in case of baseline rSO_2 < 50%	General abdominal surgery	Casati A et al. **Monitoring cerebral oxygen saturation in elderly patients undergoing general abdominal surgery: a prospective cohort study.** *Eur J Anaesthesiol.* 2007 Jan; 24(1):59-65. Epub 2006 Jul 7.
53%	< 60% for ≥ 60s	ICU, post-cardiac surgery	Greenberg SB et al. **Cerebral desaturation events in the intensive care unit following cardiac surgery**. *J Crit Care.* 2013 Jun; 28(3):270-6.
18%	$SctO_2$ < 55%	Craniotomy from acute intracerebral bleeding	De Deyne CS et al. **Monitoring of absolute cerebral oxygen saturation during craniotomy for acute intra-cerebral bleeding.** *Eur J Anaesthesiol* 2009; 26(Suppl 45): 7AP5-6.
80.3%	$SctO_2$ ≤ 55% or ≥ 20% drop from baseline	Shoulder surgery in beach chair position	Murphy GS et al. **Cerebral oxygen desaturation events assessed by near-infrared spectroscopy during shoulder arthroscopy in the beach chair and lateral decubitus positions.** *Anesth Analg* 2010; 111(2):496-5.
36%	$SctO_2$ < 60%	Spine surgery in prone position	Hemmerling TM et al. **Decrease of Cerebral Oxygen Saturation in Prone Position During Spine Surgery Measured by Absolute Cerebral Oximetry.** *Presented at American Society of Anesthesiologists Annual Meeting 2010 #LB07.*
29% (9%)	$SctO_2$ ≤ 60% ($SctO_2$ ≤ 55%)	Thoracic surgery with single lung ventilation	Hemmerling TM et al. **Reduced cerebral oxygen saturation during thoracic surgery predicts early postoperative cognitive dysfunction.** *Br J Anaesth.* 2012 Apr; 108(4):623-9. Epub 2012 Feb 5.
56% (10%)	$SctO_2$ ≤ 65% ($SctO_2$ ≤ 55%)	Thoracic surgery	Kazan R et al. **Reduced cerebral oxygen saturation measured by absolute cerebral oximetry during thoracic surgery correlates with postoperative complications.** *Br J Anaesth.* 2009; 103(6):811-16.

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