

BIS™Advance monitor for TIVA

Perfecting your art. Advancing patient care.

Make a difference in post-TIVA outcomes



Personalize TIVA dosing. Improve outcomes.¹⁻⁴



There are several potential advantages to total intravenous anesthesia (TIVA). But using only routine monitoring during TIVA may increase the risk of unintended awareness^{1,2,5} or excessively deep anesthesia.¹⁻⁴

In order to personalize your propofol dosing based on the individual needs of each patient, you need a direct measurement of the propofol effect on your patient's brain. BIS™ Advance monitoring empowers you by accurately reflecting the anesthetic effect on your patient's brain, allowing you to personalize dosing to:



Easy to use. Easy to configure.

The completely redesigned BIS™ Advance monitor gives you:



- A large, high-resolution, touchscreen monitor that's simple to read
- Configurable data and settings so you can see just the information you want
- Color-coordinated data to quickly review readings
- The ability to track total suppression time detected during the procedure
- Built-in troubleshooting guides with information on clinical parameters and data significance

Proven algorithm. Trusted insight.

With its validated algorithm, BIS^{TM} technology provides meaningful insight so you can personalize dosing throughout a procedure. Studies show that using less anesthetic agent improves outcomes when using TIVA anesthetic approach, 1,5 when following ERAS^{TM*} protocols, 12,13 and in elderly patient populations at risk for postoperative neurocognitive disorders. 6,14-17 In addition, brain monitoring is recommended in multiple society guidelines. 18-22

Easy output. Easy to move.

The BIS™ Advance monitor is engineered to help make your workflow more efficient while giving you the insight you need.

 Save time with data output protocols that enable connectivity to electronic medical records (EMRs)

Maintain continuous monitoring when moving between care settings

To request a full clinical demo of the BIS™ Advance monitor, contact your Medtronic representative.



The BIS™ monitoring system should not be used as the sole basis for diagnosis or therapy and is intended only as an adjunct in patient assessment. Reliance on the BIS™ monitoring system alone for intraoperative anesthetic management is not recommended.

1. Lewis SR, Pritchard MW, Fawcett LJ, Punjasawadwong Y. Bispectral index for improving intraoperative awareness and early postoperative recovery in adults. Cochrane Database Syst Rev. 2019;9:CD003843. doi:10.1002/14651858.CD003843.pub4. 2. Zhang C, Xu L, Ma Y-Q, et al. Bispectral index monitoring prevent awareness during total intravenous anesthesia: a prospective, randomized, double-blinded, multi-center controlled trial. Chin Med J (Engl). 2011;124(22):3664-3669. https://www.ncbi.nlm.nih.gov/pubmed/22340221. 3. Myles PS, Leslie K, McNeil J, Forbes A, Chan MTV. Bispectral index monitoring to prevent awareness during anaesthesia: The B-Aware randomised controlled trial. Lancet. 2004;363(9423):1757-1763. doi:10.1016/S0140-6736(04)16300-9. 4. Ekman A, Lindholm M-L, Lennmarken C, Sandin R. Reduction in the incidence of awareness using BIS monitoring. Acta Anaesthesiol Scand. 2004;48(1):20-26. doi:10.1111 /j.1399-6576.2004.00260. 5. Gao WW, He YH, Liu L, Yuan Q, Wang YF, Zhao B. BIS monitoring on intraoperative awareness: a meta-analysis. Current Med Sci. 2018 Apr; 38(2): 349-53. 6. Punjasawadwong Y, Chau-In W, Laopaiboon M, Punjasawadwong S, Pin-On P. Processed electroencephalogram and evoked potential techniques for amelioration of postoperative delirium and cognitive dysfunction following non-cardiac and non-neurosurgical procedures in adults. Cochrane Database Syst Rev. 2018;5:CD01128. 7. Gan TJ, Glass PS, Windsor A, et al. Bispectral index monitoring allows faster emergence and improved recovery from propofol, alfentanil and nitrous oxide anesthesia. Anesthesiology. 1997;87(4):808-815. doi:10.1097/00000542-199710000-00014. 8. Song D, Joshi GP, White PF. Titration of volatile anesthetics using bispectral index facilitates recovery after ambulatory anesthesia. Anesthesiology. 1997;87(4):842-848. 9. Wong J, Song D, Blanshard H, Grady D, Chung F. Titration of isoflurane using BIS index improves early recovery of elderly patients undergoing orthopedic surgeries. Can J Anaesth. 2002;49(1):13-18. doi:10.1007/BF03020413. 10. Punjasawadwong Y, Phongchiewboon A, Bunchungmongkol N. Bispectral index for improving anaesthetic delivery and postoperative recovery. Cochrane Database of Syst Rev. 2014(6). 11. Luginbuhl M, Wuthrich S, Petersen-Felix S, Zbinden AM, Schnider TW. Different benefit of bispectal index (BIS) in desflurane and propofol anesthesia. Acta Anaesthesiol Scand. 2003;47(2):165-173. https://www.ncbi.nlm.nih.gov/ pubmed/12631045. 12. Lau CSM, Chamberlain RS. Enhanced recovery after surgery programs improve patient outcomes and recovery: A meta-analysis. World J Surg. 2017;41: 899-913. doi: 10.1007/s00268-016-3807-4. 13. Thillainadesan J, Yumol MF, Suen M, Hilmer S, Naganathan V. Enhanced recovery after surgery in older adults undergoing colorectal surgery: a systematic review and meta-analysis of randomized controlled trials. Diseases of the Colon & Rectum. 2021 May 11;64(8):1020-8. 14. Evered LA, Chan MT, Han R, etal. Anesthetic depth and delirium after major surgery: a randomised clinical trial. Br J Anaesth. 2021; 27 (5): 704-2. 15. Chan M, Cheng B, Lee T, et al. BIS-guided anesthesia decreases postoperative delirium and cognitive decline. J Neurosurg Anesthesial. 2013; 25(1), 33-42. 16. Radtke FM, Franck M, Lendner J, et al. Monitoring depth of anaesthesia in a randomized trial decreases the rate of postoperative delirium but not postoperative cognitive dysfunction. Br J Anaesth. 2013; 110: i98-i105. 17. Sieber FE, Zakriya K, Gottschalk A, et al. Sedation depth during spinal anesthesia and the development of postoperative delirium in elderly patients undergoing hip fracture repair. Mayo Clin Proc. 2010; 85(1), 18-26. 18. Nunes R, Fonseca N, Simões C., et al. Brazilian consensus on anesthetic depth monitoring. Braz J Anesthesiol. 2015;65(6):427-436. doi: 10.1016/j.bjane.2015.10.001. 19. Checketts M, Alladi R, Ferguson K., et al. Recommendations for standards of monitoring during anaesthesia and recovery 2015: Association of Anaesthetists of Great Britain and Ireland. Anaesthesia. 2016;71(1):85-93. doi: 10.1111/anae.13316. 20. Inouye SK, Sharon K. et al. Postoperative Delirium in Older Adults: Best Practice Statement from the American Geriatrics Society. Intraoperative Measures to Prevent Delirium. J Am Coll Surg. 2014; 220(2):136-148.e1. 21. Guidelines - ERASTM* Society. ERASTM* Society. https://erassociety.org/guidelines/. Published 2022. Accessed September 27, 2022. 22. Guideline essentials: Moderate sedation key takeaways. Association of Perioperative Registered Nurses. http://aorn.org/-/media/aorn/essentials/moderate-sedation/files/keytakeaways_moderatesedation_021716.pdf. Published 2015.

medtronic.com/bisadvance

©2024 Medtronic. Medtronic, Medtronic logo, and Engineering the extraordinary are trademarks of Medtronic. Third-party brands are trademarks of their respective owners. All other brands are trademarks of a Medtronic company. 02/2024 - US-PM-2300408 - [WF#7418793]

