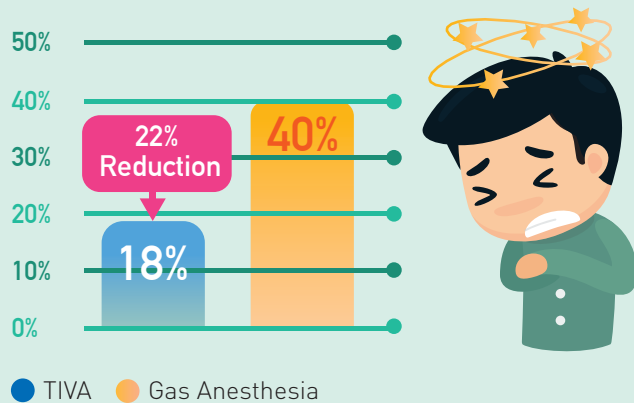
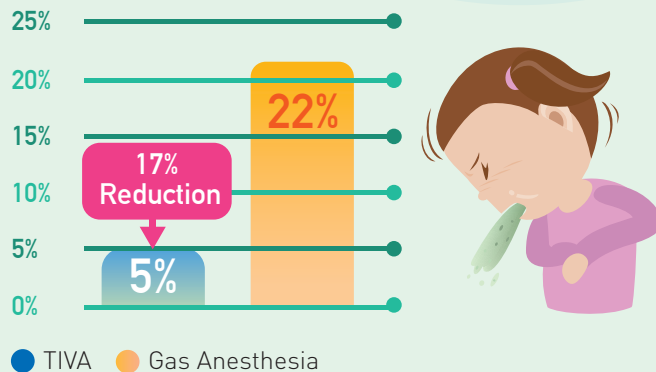


TOTAL INTRAVENOUS ANESTHESIA (TIVA) VS. VOLATILE GAS ANESTHETICS

NAUSEA UPON PACU DISCHARGE



VOMITING UPON PACU DISCHARGE



Klazina Visser, et al. Randomized Controlled Trial of Total Intravenous Anesthesia with Propofol versus Inhalation Anesthesia with Isoflurane–Nitrous Oxide: Postoperative Nausea and Vomiting and Economic Analysis. *Anesthesiology* 9 2001, Vol.95, 616–626

AM I AT HIGH RISK FOR POSTOPERATIVE NAUSEA & VOMITING ?

○ Patient Factors

- Female
- Age < 50 years
- Non-smoker
- Motion sickness
- History of Postoperative Nausea and Vomiting

○ Surgical Factors

- Gynecological Operations
- Cholecystectomies
- Laparoscopic Operations
- Extended Operations > 1 hour

○ Anesthesia Factors

- General Anesthesia
- Volatile Anesthetics
- Postoperative opioid use

Please contact your anesthesia team
for further information!



Taiwan Society
of Anesthesiologists

What You Should Know About Postoperative Nausea & Vomiting (PONV)



台灣麻醉醫學會

Taiwan Society of Anesthesiologists
Shared Decision Making Series

Reviewed by Prof. Ting Hsiao-Hsien,
Prof. Chen Chia-Wen, Prof. Chang Chuen-Chau.

August, 2019 Version

Postoperative Nausea and Vomiting (PONV) is Common after General Anesthesia

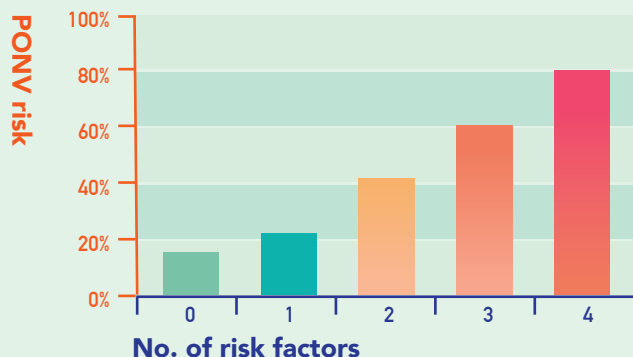
An estimated 50% of patients complain of post-operative nausea, and 30% experience vomiting. These not only cause a lot of anxiety and distress in patients, but also prolongs hospitalization length and increases medical costs.



Patients at High Risk for PONV

PONV risks can be as high as 80% in patients with multiple risks factors

Risk factors	Points
Female gender	1
Nonsmoker	1
History of PONV	1
Postoperative opioids	1
Risk score=	0-4



These problems are preventable!

Anesthesia planning to lower PONV risks

Strategies with high evidence levels

- Regional anesthesia when possible
- Avoidance of volatile gas anesthetics
- Use of propofol for induction and maintenance of anesthesia
- Adequate hydration
- Prophylactic administration of antiemetics
- Minimization of postoperative opioids

Target Controlled Infusion of Total Intravenous Anesthesia (TIVA)



Under guidance of anesthesia depth monitor, computer controlled infusion pump administers propofol to reach target levels in the blood or brain.

TIVA vs. Inhalation Anesthesia

	Total Intravenous Anesthesia (TIVA)	Inhalation Anesthesia
Agent	Intravenous propofol	Volatile gas Anesthetics
Administration	Computer controlled infusion	Manual adjustment
Monitoring	Anesthesia Depth Monitor	Gas analysis
Malignant Hyperthermia	Does Not Occur	Low Incidence
Postoperative Nausea	Lower Risk	Higher Risk
Postoperative Vomiting	Lower Risk	Higher Risk
Residual Anesthetics	Less	More

Specialist's Recommendations



American Society of Anesthesiologists™

Propofol TIVA results in a reduction of PONV, and increases patient comfort.



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COLLEGE OF ANAESTHETISTS

Propofol used as part of TIVA is recommended to reduce baseline risk for PONV.