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XXIX IFSO World Congress

1-4 September 2026 | Toronto, Canada

TORONTO2026

The Future of Obesity Management:
From Weight Loss to Health Gain

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Disclosure Slide

No Disclosures

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Anesthesia for the High-Risk Patient Undergoing Metabolic Bariatric Surgery

ISPCOP Session: Optimizing Perioperative Care in Patients with Obesity

Speaker: Joy Lo Chen, MD, FASA, FCCM

Date: September 2, 2026

TORONTO2026 The Future of Obesity Management: From Weight Loss to Health Gain

Learning Objectives

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01

Identify the high-risk bariatric patient before entering the OR

02

Apply evidence-based intraoperative strategies

- airway, ventilation
- pharmacology
- multimodal analgesia

03

Understand key postoperative handoff considerations

Who Is the "High-Risk" Bariatric Patient?

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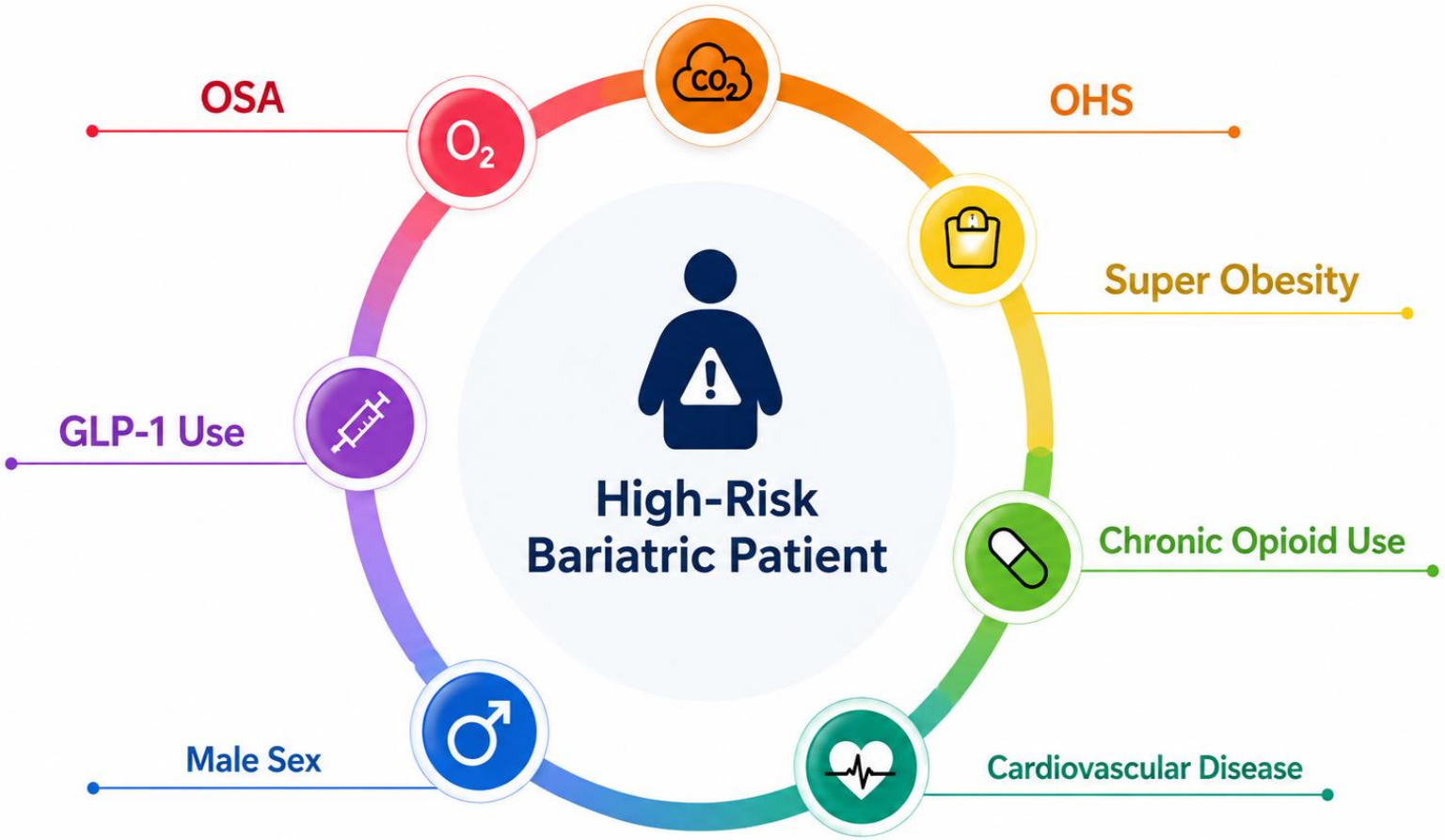

The GLP-1 RA Question: A New Preoperative Consideration

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GLP-1 RAs (semaglutide, tirzepatide)
increasingly used preoperatively
for weight optimization

Delayed gastric emptying attenuates
with ongoing treatment (>12 weeks)
(van Zuylen et al., 2024)

Clinically significant aspiration events
appear uncommon
(Chen et al., 2025; Elawa et al., 2026)

Personalized approach recommended *(Winchester et al., 2026)*

- Assess dose escalation phase, GI symptoms, urgency of surgery
- Stable dose >12 weeks without GI symptoms → **standard fasting may suffice**
- GI symptoms or recent dose escalation → **liquid diet 24h pre-op, consider POCUS, full stomach precautions/RSI**

Airway Management: Setting Up for Success

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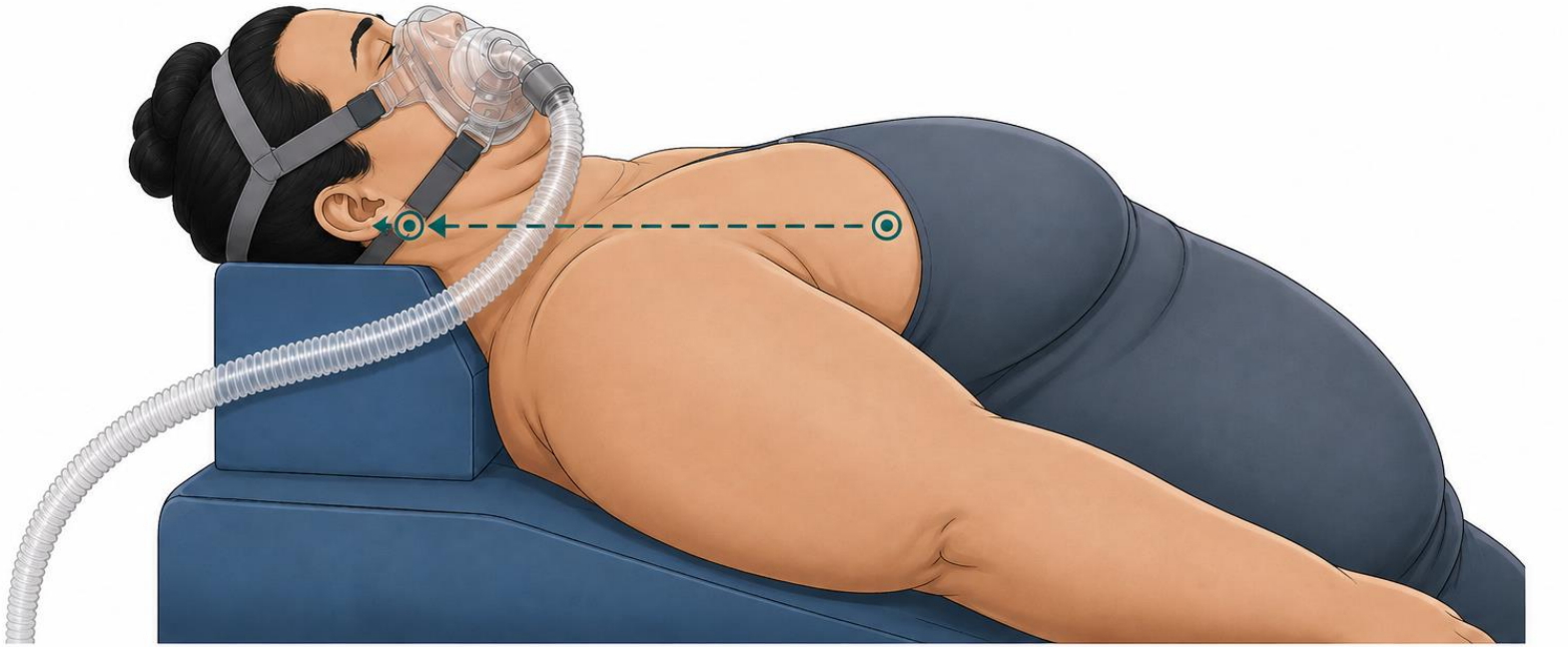

Positioning & Preoxygenation

Positioning: Ramped position improves laryngoscopic view even with VL *(Lee et al., 2023)*

Preoxygenation: Use CPAP + PS ventilation to prolong safe apneic period
(Harbut et al., 2014; Moon et al., 2019)

Align ear to sternal notch

Videolaryngoscopy as First-Line

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Meta-analysis: VL significantly ↓ failed intubation, hypoxemia, and first-attempt failure vs. DL
(Goh et al., 2025)

Improved glottic visualization without increased intubation time
(Ruetzler et al., 2020)

Recommendation: VL should be first-line approach in patients with obesity
(McKechnie et al., 2025; Russotto et al., 2026)

Have full rescue equipment available: bougie, SGA, front-of-neck access kit

Videolaryngoscopy is the preferred first-line approach in patients with obesity—optimize visualization, oxygenation, and have a plan for rescue.

Examples of Videolaryngoscopes

GlideScope (Verathon) · C-MAC (Karl Storz) · McGrath (Medtronic) · Airtraq (Prodol)

King Vision (Ambu) · Hyperangulated (Video Laryngoscope) (Stryker) · Pentax AWS (Hoya/Pentax) · LIFT (Atos Medical)

Choose the device you know best and have a backup plan.

Intraoperative Ventilation: Beyond "One PEEP Fits All"

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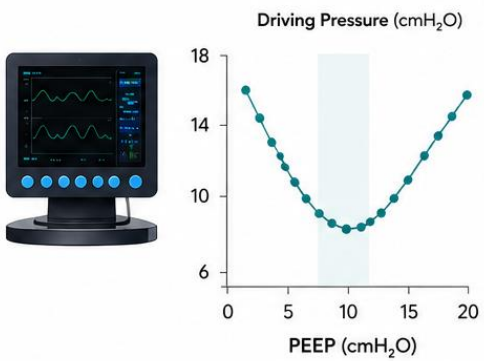
Individualized PEEP: Tailoring PEEP to the patient improves oxygenation and lung mechanics compared with fixed PEEP strategies.

1 Driving Pressure–Guided PEEP Titration

(Elbehairy et al., 2025)

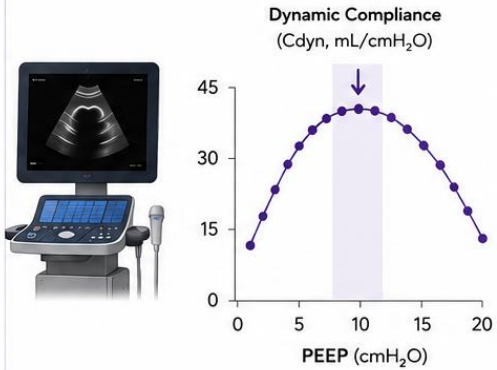


Goal: Select PEEP at the lowest driving pressure

- ↑ Oxygenation
- ↑ Compliance
- ↓ Postoperative hypoxemia

2 Dynamic Compliance–Guided PEEP

(Göçmen et al., 2026)

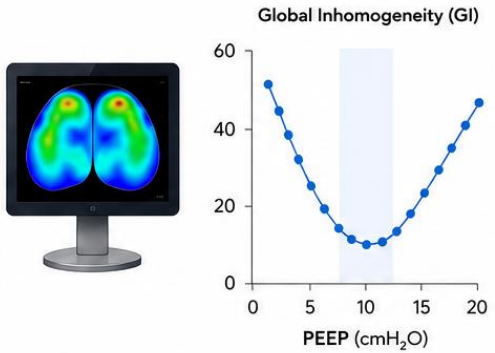


Goal: Use the PEEP that achieves the highest dynamic compliance

- ↓ Lung ultrasound scores
- ↑ PaO_2/FiO_2 at PACU

3 EIT-Guided Personalized PEEP

(Xia et al., 2026)



Goal: Set PEEP at the point of minimum inhomogeneity (best aeration)

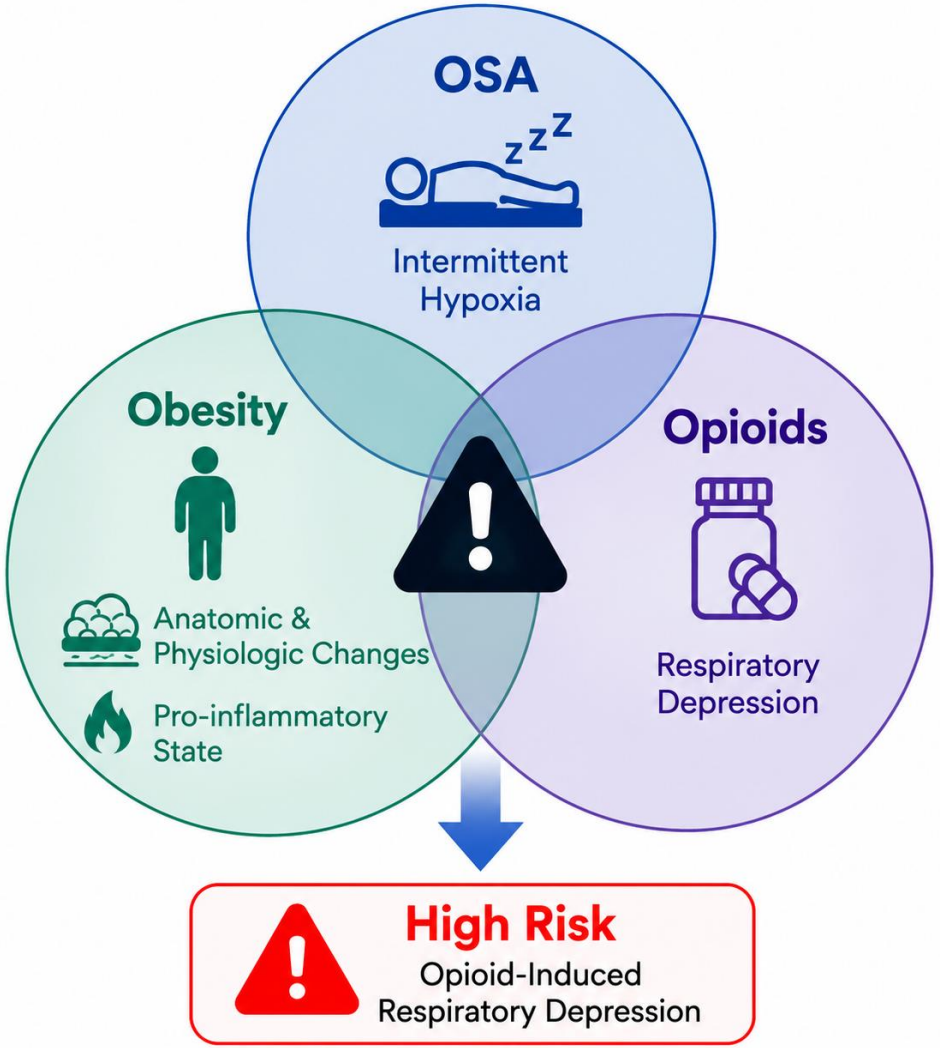
- ↑ Lung aeration
- ↑ Oxygenation
- No hemodynamic compromise

Drug Dosing in Obesity: “One Size Does NOT Fit All”

Drug	Dosing Weight	Key Point
Propofol (induction)	Lean body weight	Titrate to effect
Propofol (maintenance)	Total body weight	↑ Vd and clearance
Succinylcholine	Total body weight	↑ Pseudocholinesterase
Rocuronium	Ideal body weight	Avoid prolonged block
Fentanyl / Sufentanil	Lean body weight	Minimize dose
Remifentanil	Ideal body weight	Rapid metabolism
Sugammadex	Adjusted body weight	Ensure complete reversal

(De Jong et al., 2020)

Why Minimize Opioids in This Population?



Opioid-Free vs. Opioid-Sparing Anesthesia

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Comparable Recovery

(Olausson et al., 2025)

Reduced Pain

(Dagher et al., 2025)

Reduced Postoperative Opioid Use

(Olausson et al., 2025; Dagher et al., 2025)

Increased Patient Satisfaction

(Dagher et al., 2025)

Reduced PONV

(Mieszczanski et al., 2023)

Increased Hemodynamic Lability and Vasopressor Requirements

(Mieszczanski et al., 2023)

The Multimodal Analgesia Toolkit

Agent	Evidence in Bariatric Surgery
NSAIDs (ketorolac)	↓ LOS, 34% ↓ opioid use; low bleeding risk (Hariri et al., 2019)
IV Acetaminophen	↓ Pain scores and opioid consumption (Lee et al., 2019)
Ketamine (low-dose)	↓ Morphine consumption; NMDA antagonism (Kasputyte et al., 2020)
Dexmedetomidine	↓ PACU opioid use, ↓ PONV, ↓ PACU LOS at 0.2 mcg/kg/h TBW (Tufanogullari et al., 2008)
Magnesium	Synergistic with ketamine; ↓ 24h morphine (Jabbour et al., 2020)
Lidocaine infusion	↓ Postoperative opioids; requires LAST protocols (Plass et al., 2021)
Dexamethasone	↓ Pain and opioid use after laparoscopic surgery (De Oliveira et al., 2011)

Embed within an ERABS pathway (Mechanick et al., 2020; Grant et al., 2019)

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Regional Anesthesia Considerations

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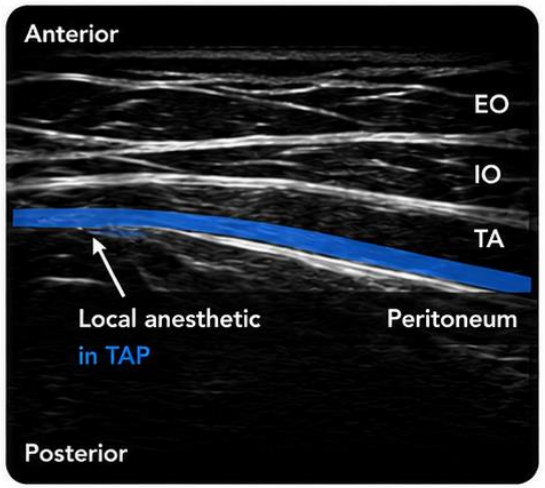
TRANSVERSUS ABDOMINIS PLANE (TAP) BLOCK

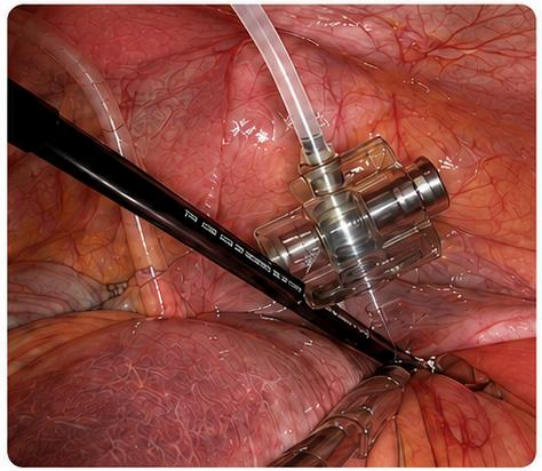


Provides analgesia to the anterior abdominal wall (T6–L1)

- ↓ 24h opioid consumption
- ↓ rescue opioid need
- ↓ pain scores

(Filardi et al., 2024)

INTRAPERITONEAL BUPIVACAINE INSTILLATION



Local anesthetic instilled into the peritoneal cavity at the end of the case before desufflation

- ↓ pain in first 6 hours
- ↓ total morphine consumption

(Omar & Abualsel, 2019)

LOCAL ANESTHETIC INFILTRATION

Standard at trocar sites for laparoscopic cases

LIPOSOMAL BUPIVACAINE

No advantage over standard bupivacaine

(Ma et al., 2019)

BEST CANDIDATES FOR TAP BLOCKS

- Chronic pain
- Chronic opioid use
- Ambulatory bariatric surgery
- Open procedures

SAFE AND EFFECTIVE

Part of multimodal, opioid-sparing strategies

GOAL

Optimize analgesia, reduce opioid exposure, enhance recovery

Postoperative Handoff: What the Anesthesiologist Must Communicate

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Postoperative CPAP is safe after primary bariatric surgery

Does NOT ↑ anastomotic leak risk

- *Tong et al., 2017; Reijers et al., 2021*

CPAP throughout PACU + ≥24h post-discharge

with continuous pulse oximetry

↓ complications

- *Weingarten et al., 2011*

Most OSA patients on perioperative CPAP

can go to surgical wards

Routine ICU admission not needed

- *Alexis et al., 2022; Goucham et al., 2016*

Handoff essentials

- OSA severity
- Intraoperative opioid use
- CPAP settings
- Monitoring needs
- Analgesic plan

Key Takeaways

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- **Identify risk** before induction:
  OSA/OHS status, GLP-1 RA use, chronic opioid use
- **Airway:** Ramped position + preoxygenation with positive pressure + VL as first-line
- **Ventilation:** Low Vt (6–8 mL/kg IBW) + individualized PEEP + recruitment maneuvers
- **Pharmacology:** Dose by appropriate weight scalar; quantitative NMB and depth-of-anesthesia monitoring
- **Analgesia:** Multimodal, opioid-sparing (or opioid-free) strategy within an ERABS framework
- **Handoff:** Communicate OSA severity, CPAP plan, and analgesic strategy to PACU/ward team

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Thank you!

Thank you for your attention. We will now transition to our next speaker.

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"Advancing Multimodal Obesity Care"

24-27 August 2027

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