

AHS Pre-operative Fasting and Carb Loading Guideline: Questions and Answers

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Refer to the AHS *Pre-operative Fasting and Carbohydrate* Loading Prior to Surgical Interventions – Adults, Guideline* for details of the provincial guideline, available at <https://extranet.ahsnet.ca/teams/policydocuments/1/clp-ahs-preop-fasting-carb-load-hcs-237-01.pdf>

Resources in **bold** are included in the **Guideline Implementation Toolkit**, available at www.ahs.ca/SurgerySCN

1. What is pre-operative fasting? What is the source of evidence?

According to the Canadian Anesthesiologists' Society (CAS) *Guidelines to the Practice of Anesthesia, Revised Edition (2019)*, the minimum duration of pre-operative fasting for adults before scheduled procedures should be

- 8 hours after a meal that includes meat or fried or fatty foods
- 6 hours after a light meal (such as toast and a clear fluid)
- 2 hours after clear fluids

* Carb = carbohydrate

2. What is pre-operative carb loading? What is the source of evidence?

According to the AHS *ERAS Nutrition Working Group Consensus: Juice as Carbohydrate Loading Products*, all adult patients undergoing surgery may benefit from a carb load of 500 mL of clear apple juice or cranberry cocktail 2 to 3 hours prior to surgery time. Carb loading helps patients undergo surgery in a metabolically fed state which reduces surgical stress on patients, accelerates their recovery, and contributes to reductions in post-surgical complications. The clear juice carb load is to be consumed by patients at 3 hours before surgery time, prior to patients stopping drinking.

3. Why do pre-operative fasting and carb loading practices need to be standardized across Alberta?

Pre-operative fasting and carb loading practices standardized across Alberta

- contributes to patient safety by minimizing the risk of aspiration for all patients based on current evidence from *CAS Guidelines to the Practice of Anesthesia, Revised Edition (2019)*
- avoids unnecessary prolonged fasting for all patients
- prevents Operating Room delays due to inadequate patient fasting
- ensures all patients undergoing surgery are in a metabolically fed and hydrated state which has been shown to enhance patient recovery from surgery

4. Who is involved in pre-operative fasting and carb loading?

Surgeons, surgeons' office staff, anesthesiologists, nursing, allied health, and site operations leadership need to be familiar with the information given to patients, the evidence for minimum pre-operative fasting times, and when to appropriately provide patients with a clear juice carb load. Patients and families need to receive clear, consistent messages from all sources about pre-operative fasting and carb loading to arrive appropriately fasted before surgery.

5. What patient instructions are available? What should patients be instructed to do?

The AHS Eating and Drinking Before Surgery: **Patient Instructions**, six versions are available for clinicians to use in multiple formats including print from DataOnline for surgeons' offices and Pre-admission Clinics, and online for patients at MyHealth.Alberta.ca.

Standardized provincial instructions promotes consistent messages to patients and their families about pre-operative fasting and carb loading from all providers along the surgical care pathway. Refer to the **Patient Instructions: Quick References** for details on how to select, order, and use the six versions of patient instructions for specific patient and clinical situations: Non-Diabetic; Non-Diabetic, With Bowel Prep; Non-Diabetic, Fasting Only; Non-Diabetic, With Bowel Prep, Fasting Only; Diabetic; Diabetic, With Bowel Prep.

Patients should be instructed to stop eating at 8 hours before surgery and to stop drinking at 3 hours before surgery. This allows for a 'buffer' zone of 2 extra hours for solid food and 1

extra hour for clear fluids compared to the CAS minimum fasting guidelines, i.e., the patient instructions time are longer than the minimum fasting times. This provides flexibility as needed in the Operating Room schedule. The AHS **When to Stop Eating and Drinking Before Surgery: Patient Timetable** may be used to assist patients and health care providers in determining exact times to stop eating and drinking before scheduled surgery times.

6. Do patients have to get up at night to eat a final snack or consume a carb load?

While beneficial, eating a final snack or consumption of a clear juice carb load is not required for a surgical intervention to proceed. Non-consumption of a final snack or a clear juice carb load is not a reason to delay or cancel a surgical intervention.

7. What happens if a patient doesn't drink a clear juice carb load before arriving at the hospital?

Patients should be assessed in the day of surgery admission unit or area using the **Carb Loading: Assessment Algorithm and Quick Tips** to determine whether they have consumed a clear juice carb load, if appropriate. Patients who have not consumed a clear juice carb load and are admitted greater than 3 hours prior to a scheduled surgery may be provided with 500 mL of clear apple juice or cranberry cocktail, if appropriate.

8. Does carb loading apply to patients with diabetes?

The current AHS Provincial Clinical Knowledge Topics (*Perioperative Management of Patients with Diabetes Mellitus; Enhanced Recovery for All Surgeries*) recommendation is to **avoid carb loading patients with diabetes mellitus** until prospective trials have been completed.

9. What happens if a patient situation is outside of the parameters provided in the guideline? Does this guideline apply to emergent or urgent cases?

Clinical judgment may be exercised when a situation is determined to be outside the parameters of the **AHS Pre-operative Fasting and Carb Loading Guideline** including considerations for age and preexisting medical conditions. The guideline does not apply to pediatric patients. Any deviation from the guideline that is determined to be clinically appropriate or necessary must be documented with rationale in the patient's health record. Health care providers need to assess emergent or urgent cases on an individual basis related to pre-operative fasting and carb loading, considering the risk of delaying surgery vs the risk of aspiration of gastric contents.

10. What happens if a patient does not meet minimum fasting times?

Reasonable clinical judgment should be used if the last times or types of food or drink consumed do not meet the minimum fasting times (see Question 1). Considerations for delaying or cancelling surgery related to minimum pre-operative fasting guidelines need to be done in consultation with the surgical site team and site leadership as per site local practices. Documentation along with rationale must be completed in the patient's health record.

References:

AHS *Eating and Drinking Before Surgery: Patient Instructions*. (2019). Retrieved from <https://myhealth.alberta.ca/alberta/Pages/Your-Surgery-Resources.aspx>

AHS *ERAS Nutrition Working Group Consensus: Juice as Carbohydrate Loading Products*. (2019). Retrieved from Appendix A of <https://extranet.ahsnet.ca/teams/policydocuments/1/klink/et-klink-ckv-enhanced-recovery-for-all-surgeries-adult-inpatient.pdf>

AHS *Pre-operative Fasting and Carbohydrate Loading Prior to Surgical Interventions – Adults, Guideline*. (2019). Retrieved from <https://extranet.ahsnet.ca/teams/policydocuments/1/clp-ahs-preop-fasting-carb-load-hcs-237-01.pdf>

AHS *Provincial Clinical Knowledge Topic: Perioperative Management of Patients with Diabetes Mellitus, Adult – Inpatient, V 1.0*. (2019). Retrieved from <https://extranet.ahsnet.ca/teams/policydocuments/1/klink/et-klink-ckv-perioperative-diabetes-guidelines-adult-inpatient.pdf>

AHS *Provincial Clinical Knowledge Topic: Enhanced Recovery for All Surgeries, Adult – Inpatient, Ambulatory V 1.1*. (2019). Retrieved from <https://extranet.ahsnet.ca/teams/policydocuments/1/klink/et-klink-ckv-enhanced-recovery-for-all-surgeries-adult-inpatient.pdf>

AHS *Pre-operative Fasting and Carbohydrate Loading Prior to Surgical Interventions – Adults, Guideline: Implementation Toolkit*. (2019). Retrieved from <https://www.albertahealthservices.ca/scns/Page9378.aspx>

Canadian Anesthesiologists' Society (CAS) *Guidelines to the Practice of Anesthesia, Revised Edition* (2019). Retrieved from <https://www.cas.ca/en/practice-resources/guidelines-to-anesthesia>

DataOnline at <https://dol.datacm.com>

MyHealth.Alberta.ca at <https://myhealth.alberta.ca>

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