Your Surgery Nutrition Plan: What to Buy and When to Take It

Why Nutrition Matters Before and After Surgery

Your body needs extra building blocks to heal after surgery. Research shows that taking specific nutritional supplements before and after orthopedic surgery helps preserve muscle, reduces complications, and speeds recovery. Your surgeon is recommending the following plan based on the best available evidence.

STEP 1: Supplements to Buy Before Surgery

Go to your local pharmacy (CVS, Walgreens, Walmart, etc.) or order online (Amazon, Walmart.com) at least 2 weeks before your surgery date.



- **Essential Amino Acid (EAA) Powder** — Look for a product labeled "EAA" that contains at least 9 grams of essential amino acids per serving and at least 3 grams of leucine per serving. Common brands include Kion EAA, NutraBio EAA Pure, or Nutricost EAA. These come as flavored powders you mix in water.
- **Juven (by Abbott)** — Available as individual packets at most pharmacies and on Amazon. This contains arginine, glutamine, and HMB, which support wound healing and reduce muscle loss.
    - *SEE THE END OF THIS DOCUMENT FOR A COUPON THAT GIVES YOU A DISCOUNT FOR JUVEN AT THE PROVIDENCE HOSPITAL CAFETERIA*

Everyone Should Also Get:



- **Vitamin D3** — 2,000 IU daily (available over the counter). If your surgeon tells you that your vitamin D level is low, you may be given a higher dose prescription.
- **Vitamin C** — 500 mg twice a day (available over the counter).
- **Ensure Pre Surgery by Abbott** — A clear carbohydrate drink designed for the morning of surgery. Available on Amazon/Walmart.com. Order 2 drinks. See Step 3 below for special instructions if you have diabetes or are on GLP-1 medicine.

STEP 2: When to Take Everything

Starting 1 Week Before Surgery:

- **EAA powder**: Mix one serving in 8–12 oz of water. Drink it twice a day, between meals (for example, mid-morning and mid-afternoon).
- **Juven**: Mix 1 packet in 8 oz of water. Drink twice a day (for example, with breakfast and dinner).
- **Vitamin D3**: 2,000 IU once daily with food.
- **Vitamin C**: 500 mg twice daily.

The Night Before Surgery:

- Take your supplements as usual with dinner.
- You may eat a normal dinner. Follow your surgeon's instructions about when to stop eating solid food (usually midnight or 8 hours before surgery).
- **Drink** one bottle of **Ensure Pre Surgery by Abbott** before bedtime. (See Step 3 below for special instructions if you have diabetes or are on GLP-1 medicine.)

The Morning of Surgery (VERY IMPORTANT — Read Carefully):

- **DO drink** one bottle of **Ensure Pre Surgery by Abbott** and **finish the drink at least 2 hours before your scheduled ARRIVAL time.**
- If your arrival time is at or before 7 am, then if you desire you can skip the Ensure Pre Surgery by Abbott in the morning and you may drink both bottles the night before.
- **DO NOT** drink anything else after finishing the **Ensure Pre Surgery** — no coffee, no juice, no water.
- **DO NOT** eat any solid food the morning of surgery.

After Surgery — Continue for 6 Weeks:

- **EAA powder**: Continue twice daily between meals.
- **Juven**: Continue twice daily for at least 2 weeks (you may continue up to 6 weeks).
- **Vitamin D3**: Continue 2,000 IU daily.
- **Vitamin C**: Continue 500 mg twice daily.
- **Protein goal**: Aim for protein-rich foods at every meal (eggs, chicken, fish, Greek yogurt, cottage cheese, protein shakes). Your goal is roughly 1.2–1.5 grams of protein per kilogram of body weight per day. As a rough guide:
    - If you weigh 150 lbs: aim for about 80–100 grams of protein per day
    - If you weigh 200 lbs: aim for about 110–135 grams of protein per day
    - If you weigh 250 lbs: aim for about 135–170 grams of protein per day

STEP 3: Special Instructions for Patients With Diabetes or taking a GLP-1 (Mournjaro, Wegovy, Ozempic, Zepbound, etc.)

If you are taking a GLP-1 medicine, you should NOT drink the Ensure Pre Surgery.

If you have well-controlled type 2 diabetes (your doctor has told you your HbA1c is below 7.5% and you do NOT have gastroparesis or diabetic nerve problems affecting your stomach):

- You CAN drink **Ensure Pre Surgery** on the morning of surgery. Research shows it is safe and may actually help your blood sugar control after surgery.
- **Extra step**: Check your blood sugar with your home glucometer the morning of surgery BEFORE drinking the **Ensure Pre Surgery**.
    - If your blood sugar is **under 250 mg/dL** → go ahead and drink the **Ensure Pre Surgery** as directed above.
    - If your blood sugar is **250 mg/dL or higher** → skip the **Ensure Pre Surgery** and drink plain water instead (up to 12 oz, finished at the same cutoff time).
- Tell your anesthesia team that you drank the **Ensure Pre Surgery** so they can monitor your blood sugar during surgery.

If you have type 1 diabetes:

- **DO NOT** drink **Ensure Pre Surgery**. Drink plain water instead (up to 12 oz, finished at the same cutoff time).

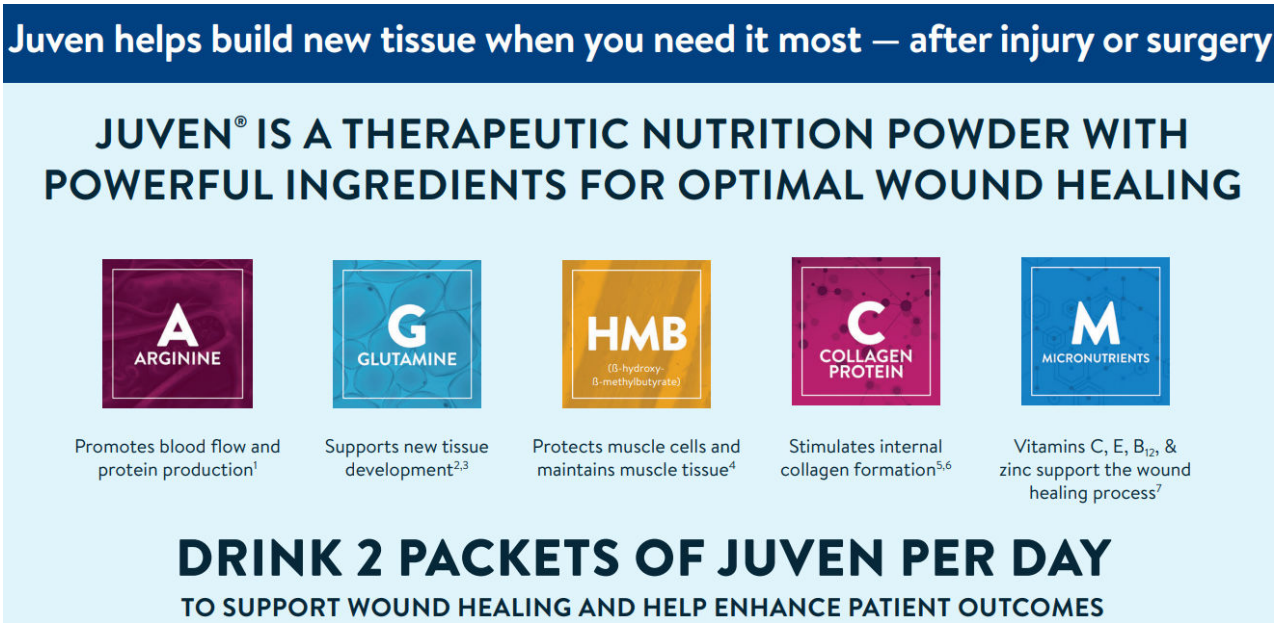
If you have poorly controlled diabetes (HbA1c 7.5% or higher), gastroparesis, or diabetic nerve problems affecting your stomach:

- **DO NOT** drink **Ensure Pre Surgery**. Drink plain water instead (up to 12 oz, finished at the same cutoff time).

If you are unsure which category you fall into, ask your surgeon's office before surgery day.

Quick Shopping List

- EAA powder (e.g., Kion EAA, NutraBio EAA, or Nutricost EAA)
- Juven packets (Abbott) — enough for twice daily x 6 weeks
- Vitamin D3 2,000 IU
- Vitamin C 500 mg
- Ensure Pre Surgery by Abbott, 2 bottles



Provide this voucher to Ascension Providence hospital cafeteria located at 6901 Medical Pkwy, Waco, TX to purchase Juven at a discounted rate.

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Also available at: amazon CVS Walgreens Walmart.com

Abbott

Frequently Asked Questions

Q: Can I just drink a protein shake instead of EAAs?

A: Protein shakes (like whey protein) are helpful for meeting your daily protein goal, but they are not a substitute for EAA supplements. EAA supplements are specifically designed to deliver a concentrated dose of the amino acids your muscles need most, especially leucine. Think of it this way: protein shakes are your daily nutrition, and EAA supplements are your medicine for surgery recovery.

Q: What if I can't afford all of these?

A: If cost is a concern, the single most important supplement is the EAA powder for surgery requiring healing or Juven for fractures. Start there. Vitamin D and vitamin C are also very affordable.

Q: Are there any side effects?

A: These supplements are very safe. Some people notice mild bloating or a change in taste with the amino acid powders. Juven may cause mild stomach upset in some people — if so, try taking it with a small snack.

Q: What if my surgery gets rescheduled?

A: Just keep taking the supplements and restart the 1-week countdown when your new surgery date is set.

Q: Can I use Gatorade instead of Ensure Pre Surgery on the morning of surgery?

A: No. Gatorade and other sports drinks are not the same thing. **Ensure Pre Surgery** is specifically formulated for pre-surgery use. Sports drinks may not be approved by your anesthesiologist and could result in your surgery being delayed or cancelled.

Important: Bring this sheet to your pre-op appointment so your surgical and anesthesia team are aware of your nutrition plan.

If you have questions, call your surgeon's office.

Select References for Surgery Nutrition Handout

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2. Hendrickson NR, Davison J, Glass NA, et al. Conditionally essential amino acid supplementation reduces postoperative complications and muscle wasting after fracture fixation: a randomized controlled trial. *J Bone Joint Surg Am*. 2022;104(9):759–766.

3. Ueyama H, Kanemoto N, Minoda Y, Taniguchi Y, Nakamura H. Perioperative essential amino acid supplementation facilitates quadriceps muscle strength and volume recovery after TKA: a double-blinded randomized controlled trial. *J Bone Joint Surg Am*. 2023;105(15):1163–1172.

4. Ljungqvist O, de Boer HD, Balfour A, et al. Opportunities and challenges for the next phase of Enhanced Recovery After Surgery: a review. *JAMA Surg*. 2021;156(8):775–784.

5. Joshi GP, Abdelmalak BB, Weigel WA, et al. 2023 American Society of Anesthesiologists practice guidelines for preoperative fasting. *Anesthesiology*. 2023;138(2):132–151.