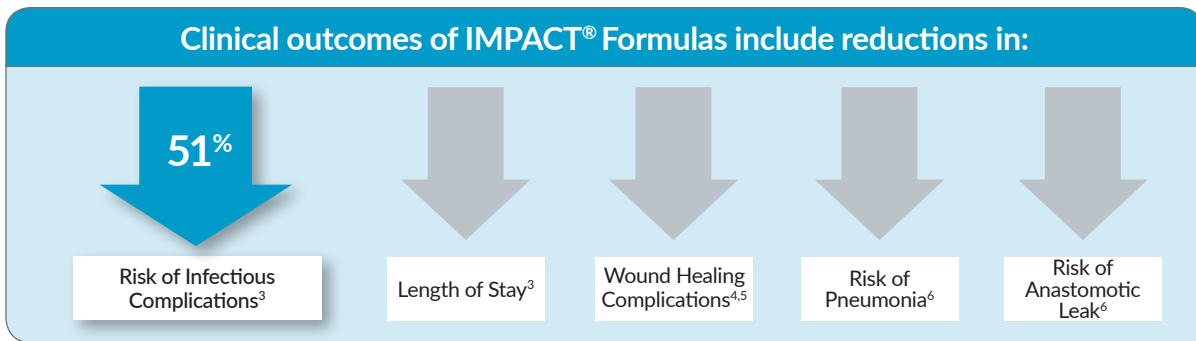


# An Evidence-Based Choice



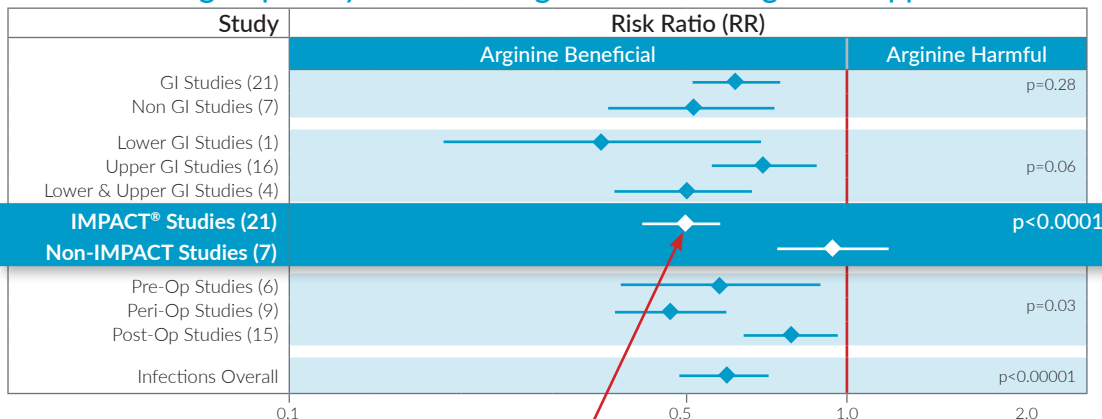
**An analysis of 28 studies in major elective surgery showed only IMPACT® formula reduced the risk of infectious complications by 51% vs. control. Other immunonutrition formulas showed no significant effect.<sup>3</sup>**

**Study Objective:** To provide an up-to-date systematic and large review (n=3,487) of randomized clinical trials evaluating arginine-supplemented immunonutrition (IM) in major elective surgical patients.

**Synopsis:**

- Risk of infectious complications, aggregated across 28 studies of IM vs. standard formula, showed a 41% reduction with IM (RR=0.59; 95% CI, 0.50–0.70; p<0.00001).
  - Of 28 surgical studies, 22 were in GI, 4 in head and neck cancer, 1 in cardiac and 1 in gynecological cancer.
- A priori subgroup analysis compared studies that used IM containing supplemental arginine, omega-3 fatty acids and nucleotides (IMPACT® formula) with studies that used other arginine-supplemented IM formulas (non-IMPACT® studies).
  - Studies using IMPACT® formulas found a 51% reduction in risk of infectious complications vs. control (RR= 0.49; 95% CI, 0.41–0.58; p<0.00001).
  - The non-IMPACT® studies did not find a significant reduction in infectious complications (RR=0.95; 95% CI, 0.75–1.21; p=0.68).
- Reduction in length of stay (LOS) aggregated across 29 studies of IM vs. standard formula was –2.38 weighted mean days (95% CI, –3.39 to –1.36; p<0.00001).
- Additionally a priori sub-analyses found perioperative administration of IM yielded the most significant benefit in the reduction of LOS and risk of infectious complications.

**Results of subgroup analyses examining the effect of arginine-supplemented diets on infection**



p values refer to the differences in the effect of arginine-supplemented diets on infections between subgroups (gastrointestinal [GI] versus non-GI studies, p=0.28; lower GI, upper GI, and mixed GI studies, p=0.06; IMPACT® versus non-IMPACT studies, p<0.00001; preoperative, perioperative, and postoperative, p=0.03).

Adapted from Drover et al., J Am Coll Surg 2011, Figure 4

Studies with IMPACT® formula show a **51% reduction in risk of infectious complications** (RR= 0.49; 95% CI, 0.41–0.58; p<0.00001)

IMPROVING SURGICAL OUTCOMES WITH

# IMPACT® Immunonutrition Formulas

Contains a unique blend of arginine, omega-3 fatty acids (EPA+DHA from fish oil), and nucleotides shown to reduce complications in major elective surgery patients<sup>3-10</sup>



## Nutrition Information

Serving Size	IMPACT ADVANCED RECOVERY® Drink		IMPACT® Formula	IMPACT® Peptide 1.5 Formula
	Per 178 mL carton	Per 534 mL (3 cartons)	Per 1000 mL	Per 1000 mL
Supplemental L-arginine (g)	4.2	12.6	12.5	18.7
EPA + DHA (g)	1.1	3.3	1.7	4.9
Nucleotides (g)	0.43	1.3	1.2	1.8
Calories (kcal)	200	600	1,000	1,500
Protein (g)	18 (35% of total kcal)	54 (35% of total kcal)	56 (22% of total kcal)	94 (25% of total kcal)

## Ordering Information

PRODUCT	PRODUCT CODE	NDC FORMAT NUMBER	CASE UPC (GTIN)	PACKAGING
IMPACT® Unflavored	35810000	43900-0358-10	10043900358106	24-250 mL cartons/case
IMPACT® UltraPak® System	35810800	43900-0358-18	10043900358182	6-1000 mL bags/case
IMPACT ADVANCED RECOVERY® Vanilla	4390099291	43900-0992-90	00043900992914	15-178 mL cartons/case
IMPACT® Peptide 1.5 Unflavored	4390097400	43900-0973-99	10043900974009	24-250 mL cartons/case
IMPACT® Peptide 1.5 UltraPak® System	4390097371	43900-0973-70	10043900973712	6-1000 mL bags/case

NDC Formatted Numbers are not actual National Drug Codes (NDC). They are product codes adjusted according to standard industry practice to meet the format requirements of certain suppliers and payers. Nestlé HealthCare Nutrition submits product information including various product codes to the compendia including First Data Bank, RedBook and Medispan but cannot confirm that the NDC Formatted Numbers submitted have been published by the compendia.

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USE UNDER MEDICAL SUPERVISION. NOT INDICATED WHEN IMMUNE SUPPRESSION IS DESIRED.

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