



## Investing in Nutritional Therapy for the Surgical Patient Help Reduce Surgical Complications and Length of Stay (LOS)<sup>1,2</sup>

Surgical complications are a major driver of unplanned readmissions.<sup>3</sup> Appropriate nutritional therapy can reduce risk of surgical complications leading to improved outcomes and decreased LOS.<sup>4</sup> Surgical site infections (SSIs) alone cost over \$3 billion dollars per year.<sup>5</sup>

**IMPACT® Immunonutrition formulas are evidence-based specialized nutrition to meet the unique nutritional needs of surgical and trauma patients.<sup>4,6-8</sup> With over 20 years of use and 80+ publications, the IMPACT® family of formulas contain a unique blend of nutrients which consistently yield positive outcomes.**

When compared to standard nutrition, positive outcomes associated with the use of IMPACT® formulas in major elective surgery patients include:

- 51% decrease in risk of infectious complications (RR=0.49; 95% CI, 0.41-0.58; p<0.00001)<sup>4</sup>
- 15-20% reduction in hospital LOS (-2.62 days, 95% CI, -3.65 to -1.59; p<0.00001)<sup>4</sup>

Clinical outcomes associated with the use of IMPACT® formulas in major elective surgery patients also include significant reductions in risk of nosocomial pneumonia, UTI, SSI and anastomotic leak.<sup>9</sup>

The Critical Care Nutrition Guidelines support routine use of immune-modulating formula containing both fish oil and arginine for the post-operative SICU patient, and also suggest these immunonutrients for the severe trauma and traumatic brain injury patient requiring enteral nutrition therapy.<sup>10\*</sup>

### **IMPACT® PEPTIDE 1.5\* provides the following to help support improved outcomes in the major elective surgery or trauma patient:**

#### **Evidence-based blend of immunonutrients:**

- **Arginine:** In surgery or trauma promotes T-cells to reduce immunosuppression, and supports wound management by sustaining oxygenation and increasing hydroxyproline/collagen production<sup>11-16</sup>
- **Nucleotides:** Precursors to RNA and DNA synthesis which support replication of the rapidly dividing cells of the immune system, e.g. T-cells<sup>17-20</sup>
- **Omega-3 fatty acids:** Manage inflammation and help to sustain arginine supply by reducing induction of arginase<sup>21,22</sup>
- Peptide-based high protein formula to support tolerance and improved nitrogen retention and absorption;<sup>23-25</sup> calorically dense to achieve adequate calories in volume sensitive patients
- Relatively lower carbohydrate level to support glycemic control in the ICU<sup>26</sup>
- 50% of fat as MCT providing a readily available energy source to assist fat absorption<sup>25, 27-28</sup>
- Micronutrient blend that supports wound management including vitamins A and C, zinc and selenium<sup>16</sup>

# Critical Care Nutrition Guidelines for enteral nutrition in postsurgical and trauma patients:<sup>10\*</sup>

1. Initiate EN within 24-48 hours of admission to the Surgical ICU following major surgery or trauma, and within 4-6 hours of severe burn injury.
2. Use of an evidence-based immunonutrition formula is recommended for at least 5 days following surgery or trauma.

IMPACT® Immunonutrition formulas contain an evidence-based blend of arginine, nucleotides and omega-3 fatty acids.

## Estimated Potential Savings from hospital days avoided when using IMPACT® formulas



Average Hospital LOS: <sup>†</sup>	5.0 days
Reduced LOS by using postsurgical IMPACT® formulas <sup>4</sup>	<b>15%</b>
<b>Results in:</b>	<b>0.75 hospital days avoided</b>
Average Hospital Cost per bed per day <sup>†</sup>	\$1,266 per bed per day
<b>Results in:</b>	<b>\$950 savings per patient**</b>

Average Hospital LOS:	_____ days
Multiplied by	<b>15%</b>
<b>Results in:</b>	<b>_____ hospital days avoided</b>
Multiplied by average Hospital Cost per bed per day	\$_____ per bed per day
<b>Results in:</b>	<b>\$_____ savings per patient**</b>

\* These statements do not constitute an endorsement of IMPACT® formulas or any Nestlé Health Science product by SCCM or A.S.P.E.N.

\*\* Estimated potential savings are for illustrative purposes only and are based on a variety of assumptions and aggregated data. They should not be construed as a guarantee of any specific costs or cost-savings for your particular institution.

<sup>†</sup>Average hospital LOS and hospital cost per bed are based on American Hospital Directory reported averages

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## IMPACT® formulas Proven to Improve Surgical Outcomes

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