

## **Postsurgical Infections are Reduced with Specialized Nutrition Support**

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World J Surg 2006;30:1-13*

### **Objective**

To examine the relationship between pre-, peri- and postoperative nutrition support with immune-modulating nutrients and determine post-operative morbidity in patients undergoing major elective surgery.

### **Methods:**

This meta-analysis was completed to determine if significant outcomes were found in surgery patients receiving IMPACT<sup>®</sup> Formula preoperatively, postoperatively or perioperatively. Seventeen (17) studies (14 published and 3 unpublished) with a total of 2,305 patients were used to collate the data for the meta-analysis. Ten (10) studies examined the efficacy of pre- or peri-operative IMPACT Formula supplementation, whereas 7 studies assessed postoperative efficacy. Fourteen (14) studies were in GI cancer surgery patients, 2 in cardiac surgery patients and 1 in head/neck cancer surgery.

### **Results**

- The meta-analysis showed an improvement in several of the measured endpoints. The average decrease in length of stay for patients receiving IMPACT Formula was 3.1 fewer days in hospital than those who received standard tube feeding or conventional treatment ( $p < 0.05$ ). There was a lower mortality rate in the patients fed IMPACT Formula, but the data was not statistically significant.
- There were significantly fewer outcomes of morbidity in those patients receiving IMPACT Formula. Supplementation was associated with a 39%-61% reduction in post-operative infectious complications. Wound infections ( $p = 0.005$ ), abdominal abscesses ( $p = 0.001$ ), pneumonia ( $p < 0.0001$ ), urinary tract infections ( $p = 0.011$ ), and anastomotic leaks ( $p = 0.004$ ) were significantly decreased. When sub-analyzed for intent-to-treat analysis, all above outcomes were significant except the incidence of UTIs.

### **Conclusion**

Investigators concluded in this meta-analysis that the immune-modulating nutrition in IMPACT Formula provides therapeutic benefits beyond conventional treatment and standard nutrition when used to help reduce the incidence of infection. This appears to warrant supplementation with IMPACT Formula at 0.5-1.0 L/d for 5-7 days preoperatively for maximum benefit, or if this is not possible, early postoperative support with IMPACT Formula to help improve outcomes.

**Summary prepared by Nestlé HealthCare Nutrition. For a complete copy of the study, please go to the following site:**

[http://www.ncbi.nlm.nih.gov/pubmed/16794908?ordinalpos=4&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed\\_ResultsPanel.Pubmed\\_DefaultReportPanel.Pubmed\\_RVDocSum](http://www.ncbi.nlm.nih.gov/pubmed/16794908?ordinalpos=4&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_DefaultReportPanel.Pubmed_RVDocSum)