# Improve ICU Patient Feeding Tolerance for Better Outcomes

Problem: Tube feeding intolerance can result in an additional:



## **Solution:**



## **Peptide 1.5 Formula**

- Shown in a retrospective chart review to improve tolerance in SICU patients<sup>3</sup>
- Contains MCT to help facilitate fat absorption which supports formula tolerance

# Peptamen<sup>®</sup> Family of Formulas

- Enzymatically hydrolyzed 100% whey protein, which may facilitate gastric emptying and are associated with improved absorption and tolerance.<sup>4-7</sup>
- Contains MCT to help facilitate fat absorption which supports formula tolerance



Specialized Nutrition Solutions Designed for Tolerance

IMPACT® Peptide 1.5 Formula	PEPTAMEN® Intense VHP	PEPTAMEN® AF
Peptide-based high protein immunonutrition formula for surgical and trauma ICU patients	Peptide-based, very high protein formula for medical ICU patients	Peptide-based, high protein formula for medical ICU patients
Peptide profile supports absorption and tolerance <sup>3,8,9</sup>	Peptide profile promotes tolerance and improved nitrogen retention and absorption. <sup>4-5</sup>	Peptide profile promotes tolerance and improved nitrogen retention and absorption. <sup>4-5</sup>
50% of fat as MCT to help facilitate fat absorption which supports formula tolerance <sup>3,10,11</sup>	50% of fat as MCT to help facilitate fat absorption which supports formula tolerance <sup>3,10,11</sup>	50% of fat as MCT to help facilitate fat absorption which supports formula tolerance <sup>3,10,11</sup>
<ul> <li>Evidence-based blend of immunonutrients:</li> <li>Arginine: Reduces immunosuppression in trauma/surgical patients, sustains oxygenation and increases collagen production for wound management<sup>12-17</sup></li> <li>Nucleotides: Supports replication of the rapidly dividing cells of the immune system, e.g. T-cells<sup>18-21</sup></li> <li>Omega-3 fatty acids: Manages inflammation and helps sustain arginine supply by reducing induction of arginase<sup>22,23</sup></li> </ul>	Evidence-based nutritional formula:  — Efficiently delivers more protein than a standard polymeric diet <sup>25</sup> — Better meets nutrient needs in patients on Propofol <sup>®6</sup> — Supports glucose control with a hypocaloric, high protein diet <sup>27-28</sup>	Advanced formulation to help manage inflammatory response and support GI absorption and tolerance <sup>4,31</sup>
Calorically dense to achieve adequate calories in volume sensitive patients	Highest percentage of calories from protein (37%) of any complete tube-feeding formula to help support maintenance of body mass <sup>29</sup>	Calorically dense to achieve adequate calories in volume sensitive patients and high protein to support the demands of metabolic stress <sup>32</sup>
Relatively lower carbohydrate level to support glycemic control in the ICU <sup>24</sup>	Low carbohydrate level and 100% whey protein to support the nutritional management of hyperglycemia <sup>30</sup>	Contains a lipid profile (omega-3 fatty acids) and antioxidants (vitamins C&E and selenium) supported by the Critical Care Guidelines. <sup>33</sup>

**1. Gungabussoon U, et al.** *JPEN* 2015;39(4):441-448. **2.** Estimated savings bed on cost of ICU bed at 200 bed hospital. American Hospital Directory. Sourced June 2017. **3. Rumberger L et al.** *JPEN* 2014;38:20-22. **4. Borlase BC, et al.** *Surgery, Gynecology and Obstetrics* 1992;174:181-8. **5. Dylewski ML et al.** Nutrition Poster 72, ASPEN Clin Nutr Week 2006. **6. Fried MD, et al.** *Journal of Pediatrics* 1992; 120:569-72. **7. Hall WL, et al.** British Journal of Nutrition 2003; 89:239–248. **8. Meredith JW et al.** *J Trauma* 1990;30(7):S25-S29. **9. Calbet JA et al.** *Eur J Nutr* 2004;43(3):127-139. **10. Sucher KP.** NCP 1986;1(3):146-150.

- 11. McLaughlin J et al. Gastroenterol 1999;116:46-53. 12. Morris CR et al. NCP 2017;32(1):30S-47S. 13. Zhu X et al. Ann Surg 2014;259(1):171-178.
- **14. Forstermann U and Sessa WC.** Euro Heart J 2012;33:829-837. **15. Braga M et al.** Surg 2002;132:805-14. **16. Ochoa JB et al.** Ann Surg 2001;233(3):393-9.
- **17.** Chow O and Barbul A. Adv Wound Care 2014;3(1):46-53. **18.** Hess JR and Greenberg NA. NCP 2012;27(2):281-294. **19.** Grimble GK et al. Curr Opin Clin Nutr Metab Care 2001;4(1):57-64. **20.** Yamauchi K et al. Nutr 2002;18:329-333. **21.** Santora R and Kozar RA. J Surg Res 2010;161;288-294.
- **22.** Calder PC. Biochem Biophys Act 2015;1851:469-484. **23.** Bansal V et al. JPEN 2005;29(1):S75-S80. **24.** Evert AB et al. Diabetes Care 2011;34 (1):S11-S61.
- 25. Hopkins B, Jackson N. Nutrition Poster at ASPEN Clinical Nutrition Week 2017 26. Wieser JL et al. Nutrition Poster at ASPEN Clinical Nutrition Week 2017.
- **27. Ochoa J et al.** *JPEN* 2017;41(2):290. **28. Huhmann M et al.** *Clinical Nutrition* 2017;36(Supp1):S266.
- **29. Ha E, et al.** J Nutr Biochem. 2003;14:251-258. **30. Adams & Broughton.** Annals of Nutr & Metab. 2016;69:56-63.

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#### USE UNDER MEDICAL SUPERVISION

Formula selection should be based on clinical assessment and judgment of the clinician.

