Blenderized Tube Feeding for Patients with Head and Neck Cancer: Fact Sheet

Overview: Head and Neck Cancer
- Head and neck cancer includes malignant tumors in or around the throat, larynx, nose, sinuses, and mouth.
- This patient population often needs surgery, chemotherapy, and/or radiation therapy.
- Cancer and the treatment modalities have significant nutritional impact causing difficulty to maintain nutritional status and sometimes requires tube feeding.

Nutritional Goals
- Maximize nutrition intake (oral and tube)
- Prevent/limit weight loss and preserve lean body mass
- Minimize treatment delays and help improve treatment outcomes
- Weight maintenance during transition from enteral nutrition (EN)
- Increased physical activity

Recommended Nutrient Supply for Patients with Cancer

<table>
<thead>
<tr>
<th>Energy (kcal/kg/day)</th>
<th>Protein (g/kg/day)</th>
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<tr>
<td>25-30</td>
<td>1.0-1.5</td>
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Caloric requirements may increase to 35-40 kcal/kg during and right after chemoradiation therapy.

Nutrition Interventions and Support: When and How to Implement?
- Provide nutrition counseling and oral nutrition supplements
- Consider EN if oral intake <60% of estimated energy needs for 10+ days
- Place prophylactic or reactive feeding tube and initiate EN
- Insert PEG when enteral is expected more than 3-4 weeks

Bolus
- 1st Feeding: 120-237mL
- Increase similar volumes every 3-4 hours as tolerated, up to the goal volume.

Continuous
- Start at full strength, begin at 25-30 mL/hr.
- Advance as tolerated in increments of 20-30 mL/hr every 4-8 hours until the goal volume is achieved.

What is Blenderized Tube Feeding (BTF) Formula?
AS PEN Definition: Homemade BTFs are made from whole foods and usually prepared using a meal plan or recipe. There are also commercially available blenderized feeding formulas.
### Potential Benefits of EN Support with Blenderized Tube Feeding Formula (BTF)

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Description</th>
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<tr>
<td>Improved Weight Gain</td>
<td>BTF was found to be safe and effective in promoting weight gain in adult participants.³</td>
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<tr>
<td>Nausea/Vomiting</td>
<td>Emerging body of evidence suggests that BTF can be tolerated, with less nausea/vomiting than studied formulas.⁶</td>
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<tr>
<td>Bowel Regularity</td>
<td>Research suggests that BTF may help regulate normal bowel function.⁶,⁷</td>
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<td>Increased Oral Intake</td>
<td>Advantages of BTF include improved oral intake.⁶</td>
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<tr>
<td>Reflux</td>
<td>Increased viscosity of BTF may aid with reflux.⁸</td>
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### Key Takeaways

- Patients with head and neck cancer often need enteral nutrition support.
- Patients may require tube feeding during and after treatment.
- BTF has been shown to minimize GI symptoms usually associated with tube feeding, provide adequate nutrients, and may improve quality of life.
- BTF can be home blended, baby food based, or commercially prepared.

### Healthcare providers, especially dietitians, need to educate themselves on BTF and its benefits and consider use of BTF for any enterally fed patient.⁹

### References