

## Strategies for increasing oral nutritional intake

When transitioning to oral intake, it may be necessary to provide supplementary oral nutrition support to assist with progress. The child's fluid intake should be age appropriate and hydration monitored. When tube weaning, and oral intake is still less than optimal, fortification of drinks and food can be helpful in providing adequate nutrition in a smaller volume, at the same time ensuring that fluid requirements are also met. Please note that consideration needs to be given to specific dietary restrictions with respect to food allergies/intolerances/dietary requirements for disease states. <sup>¥</sup> **Please consult with a Speech-Language Therapist for a client with dysphagia requiring food and/or fluid texture modification\*.**

	Nutritional supplementation - breast milk or formula <sup>¥</sup>	High energy/high protein food <sup>¥</sup>
<b>Exclusively breast milk fed infant</b>	If transition to oral feeding is possible then consider use of supplementary oral feeds such as: -expressed milk (EBM) -fortified EBM <sup>(1)</sup> e.g. mixed with a carbohydrate supplement (e.g. Polycal) or fat emulsion (e.g. Calogen/Liquigen <sup>¥¥</sup> ) or mixed carbohydrate and fat supplement (e.g. Duocal <sup>¥¥</sup> ) or protein (e.g. Protifar) -infant formula if EBM supply is inadequate, fortified if necessary, e.g. as standard strength or concentrated Stage 1 infant formula, and/or with the addition of glucose polymer (e.g. Polycal) or fat emulsion (e.g. Calogen/Liquigen <sup>¥¥</sup> ) or mixed carbohydrate and fat supplement (e.g. Duocal <sup>¥¥</sup> )	Assess dietary intake of breastfeeding mother. Recommend nutritional advice according to the <a href="#">MOH Eating for Healthy Breastfeeding Women guidelines</a> .
<b>Formula fed infants</b>	If transition to oral feeding is possible and current formula volume given via tube is adequate to support appropriate growth then consider use of supplementary oral feeds such as: offering standard strength formula via bottle first with top up tube feed to meet required volume If the energy density of feeds needs to be increased to promote clinically safe weight before weaning OR the child is fatiguing with oral feeding OR suffers from gastro-oesophageal reflux and it is aimed to provide adequate nutrition in a smaller volume, then consider use of -fortified feeds <sup>(1)</sup> e.g. concentrated Stage 1 infant formula ± fat emulsion (e.g. Calogen/Liquigen <sup>¥¥</sup> ) or carbohydrate/fat supplement (e.g. Duocal <sup>¥¥</sup> ) as required ensuring fluid intake is adequate for hydration or consideration of non-IgE mediated food allergy if reflux present	
<b>Infants 6-12 months</b>	If transition to oral feeding is possible then consider use of supplementary oral feeds such as: -breast feeding or EBM via bottle -Stage 1 or Stage 2 infant formula OR if energy density of feeds needs to be increased to promote clinically safe weight before weaning can commence OR the child is fatiguing with oral feeding OR suffers from gastro-oesophageal reflux and it is aimed to provide adequate nutrition in a smaller volume then consider use of: - fortified feeds <sup>(1)</sup> e.g. concentrated Stage 1 infant formula ± fat emulsion (e.g. Calogen/Liquigen <sup>¥¥</sup> ) or carbohydrate/fat supplement (e.g. Duocal <sup>¥¥</sup> ) or Liquigen <sup>¥¥</sup> ) as required ensuring that fluid intake is adequate for hydration.	Aim for age and developmentally appropriate food variety, textures* and portion sizes where possible, with structured meal times Include protein rich foods such as meat, fish, poultry, egg, legumes, nut butter Food fortification to optimise energy intake

	Nutritional supplementation - breast milk or formula <sup>¥</sup>	High energy/high protein food <sup>¥</sup>
<b>Children &gt; 12 months</b>	Oral nutrition supplements e.g. Pediasure, Fortini to be considered if appropriate. If the child is only managing small oral food intake, then consider the use of carbohydrate or fat supplements (e.g. Duocal/Calogen/Liquigen <sup>¥¥</sup> ) added to foods.	Aim for age and developmentally appropriate food variety, textures* and portion sizes where possible, with structured meal times Include protein rich foods such as meat, fish, poultry, egg, legumes, nut butter Food fortification to optimise energy intake

<sup>¥¥</sup> Calogen and Duocal are contraindicated and must NOT be used in the nutrition management of chylothorax and disorders of long chain fatty acid oxidation. Liquigen is clinically indicated for use in nutrition management of chylothorax and disorders of long chain fatty acid oxidation

### Additional strategies for improving food variety<sup>(2)</sup>

- Offer alternative food within core food groups. For example:
  - Offer eggs, fish, legumes or tofu if meat and poultry are refused
  - Offer cooked, dried or tinned fruits and vegetables if raw varieties are refused or textures not well managed
- Limit non-core food and beverage items to help with appetite
- Encourage the use of core foods into standard recipes such as grated vegetables in sauces, patties or muffins, and cheese or dairy in mashed vegetables or soups
- Encourage a variety of foods offered at both main meals and snacks as this can be an important contribution to overall intake, including food variety.
- Include a variety of different coloured foods at each meal
- Offer two small courses at each meal e.g. cereal then toast at breakfast, hot meal then fruit or custard or yoghurt at dinner.
- Follow mealtime strategies to keep mealtimes relaxed, such as keeping mealtimes to a time limit and use supported seating for the child as needed.
- Encourage discussion and learning for the older child around where food comes from and what benefits foods have on health and energy.
- Encourage older child to be involved in meal/snack preparation as appropriate.

### References:

1. Neonatal and Infant Nutrition Handbook: A Nutrition Handbook for Health Professionals, Ed Barbara Cormack, 4<sup>th</sup> Edition 2013.
2. Feeding Difficulties in Children. A Guide for Allied Health Professionals. NSW Government Australia/Health, 2016 Office of Kids and Families