

PATIENT INFORMATION

Blended diet via Feeding tubes:

A practical guide for parents administering blended diet via feeding tubes.

Introduction

There is growing interest in the use of blended diet via enteral feeding tubes in the UK. Blended diet can be given in small quantities alongside or as an alternative to commercial feeds.

Patient reported benefits include.

- Reduced vomiting and retching
- Improved bowel function
- Reduced dependence on medication
- Improved general wellbeing and mood
- Diet administered is more in line with a child's typical diet
- Families empowered to be more involved in their child's nutrition
- Perceived Social and Emotional Benefits

Please be aware that whilst blended diet does suit some children it doesn't benefit all which could be due to infection risk, nutritional inadequacy, poor tolerance and other practical applications. Alternative options can be discussed with your dietitian.

Review

Regular review from your dietitian will be required for monitoring of growth and nutritional adequacy.

Please be aware that if:

- symptoms become worse/new problems or symptoms develop
- weight trends deteriorate (and/or growth is adversely affected for children)
- tube blockages become a problem requiring other interventions
- there is a food borne infection

The decision to offer blended diet should be reviewed and alternatives should be considered.

Summary of healthcare professional input

The decision to offer a blended diet should be a shared decision between yourself, your dietitian

relevant healthcare professionals involved in the patient's care.

The evidence-based guidance for dietitians has now been developed and collaboration across the

South West NHS trusts where Paediatric Dietitians have produced region wide guidance for blended

diet patients. Although information for carers is widely available on the internet through websites

and social forums, we would encourage carers who have an interest in offering blended diet to

speak to their dietitian for support with this.

If you are interested in offering a blended diet via a feeding tube for your child, please complete a shared

decision-making tool with your dietitian and feeding MDT.

Other Considerations.

- ❖ If the patient has a known allergy, please discuss this with your dietitian to get further advice on how to manage a blended diet and allergies.
- ❖ If the patient has not been exposed to food from birth, talk to your dietitian about how to prevent potential allergic reactions.
- ❖ Blended diet can be introduced from about six months of age in line with public health complementary feeding guidance, this will be assessed on an individual basis
- ❖ Time required to create feeds – this way of feeding can be labour intense
- ❖ Some settings prefer pre-blended products such as baby pouches

Meeting Nutritional requirements

Concern	Reason for concerns	Techniques to minimise concern
Potential inadequate vitamin and mineral intake	<ul style="list-style-type: none"> -Long cooking required to achieve suitable consistency may destroy some vitamins and minerals -Foods/liquids may not contain adequate complete nutrition -Reduced absorption from excessive supplementation or imbalanced food groups 	<ul style="list-style-type: none"> -Ensure a balance of foods from the different food groups are used, based around the EatWell plate or individual advice from the dietitian -Speak to your dietitian about the need for supplementation -Discuss the use of a 'mix' of commercial feed and liquidized feeds -Keep a diary of the recipes you are using – these can be discussed with your dietitian
Excess vitamin and minerals	Intake from excessive supplementation or imbalanced food groups potentially leading to serious medical problems	<ul style="list-style-type: none"> -Ensure a balance of foods from the different food groups are used -Inform your dietitian if adding in supplements

Concern	Reason for concerns	Techniques to minimise concern
Poor weight gain / weight loss (& faltering growth in children)	-Adding extra liquid, dilutes nutrients and means larger volumes are required	-Base each blend on a meal typical for the timing of the feed and add high calorie food – this can be discussed with your dietitian
Poor volume tolerance	-Large volumes of feed may be required to achieve nutritional requirement for growth	<ul style="list-style-type: none"> -Ensure a balance of foods from the different food groups are used -Use nourishing liquids (such as full fat milk, olive oil or commercial feed) to achieve required consistency -Regular Dietetic input to review suitability of blended diet

Cost

Concern	Reason for concerns	Techniques to minimise concern
Increased cost	<p>Increased cost to family compared with commercial feed.</p> <p>-Extra feeding tube/ancillaries will be needed.</p>	<p>-Consider ways to alleviate additional costs – i.e. blending standard family meals rather than looking to include special ‘super foods’ or use of prescribed formula as a base</p>

Hygiene and infection control management

Concern	Reason for concerns	Techniques to minimise concern
Infection	<p>-Change from a sterile commercially pre-prepared feed to home cooked blended diet</p> <p>-Blended diet could be a breeding ground for bacterial growth</p> <p>-Potential contamination risk from preparation, utensils, cooking, equipment, and storage.</p> <p>-Administration method</p> <p>-Poor cleaning of utensils/blender/feeding equipment.</p> <p>-Risk of food becoming lodged in tube after feeding</p>	<p>-Adherence to national food safety guidance (as per table below); including temperature control and thorough hand and feeding equipment cleaning.</p> <p>-Avoid using high risk foods (such as eggs and unpasteurised products) and ensure all foods are well cooked.</p> <p>-Pump feeding is not recommended due to hanging times</p>

SUGGESTED GOOD PRACTICE – Food Safety and Hygiene

1. Effective and frequent handwashing before and during food preparation is important.
2. Raw and cooked food ingredients should be separated during storage and preparation.
3. Food ingredients to be used in blends should be stored appropriately and used within their use by date.
4. Food ingredients should be cooked as if they were to be eaten orally prior to blending.
5. Equipment used to prepare and administer blends should be cleaned in warm soapy water, rinsed and left to air dry.
6. Blends should only be kept at room temperature for a maximum of 2 hours.
7. Blends can be stored in the refrigerator (below 5°C) for up to 24-48 hours.
8. Blends can be stored in the freezer (below -18°C) for 1-3 months.
9. Frozen blends should be defrosted thoroughly in the refrigerator (below 5°C).
10. Blends that contain meat, chicken and previously cooked foods require reheating to 70°C for 2 minutes (‘piping hot’ or ‘steaming hot’).
11. Blends are often easier to administer if given warm as the viscosity is reduced.
12. Blends should not be dehydrated at home.
13. Defrosted foods should be discarded after 24-48hrs if not used.

Tube blockage or reduced lifespan of tube

Concern	Reason for concerns	Techniques to minimise concern
Tube blockage	<ul style="list-style-type: none"> - Thicker consistency, sticky textures of blended foods. -Inadequate blending so smooth consistency is not achieved -Small gauge feeding tubes -Inadequate flushing to remove food. -Tubes are unlicensed for blended diet and the impact on the tube is unknown 	<p>Flushing tube with water pre and post feeding and take care of the tube and ancillaries</p> <ul style="list-style-type: none"> -Achieve a suitable consistency, that will easily flow through the tube. -Do not introduce foreign bodies like wires or skewers which may cause internal injury -Use blender guide as below to support with purchasing blender Ensure you know techniques of how to unblock the tube (other considerations) -Contact CCN and request regularly checks of tube condition. -It would not be recommended to give blended diet via a jejunal tube. Extra individual case by case assessment is needed if a ng tube is in place and blended diet is clinically indicated.

Type/Style of Blender	Advantages	Disadvantages
Stick Blender	Inexpensive. Easy to use. Easy to clean.	Typically, low power. Some foods are less easy to blend (e.g. seeds, nuts). Mainly small volumes. May be messy. A good container required to blend in. It may be necessary to use a sieve in addition.
Mid-Range e.g. NutriBullet®, Nutri Ninja®	Mid-price range. Easy to use. Easy to clean. Best for blending meal by meal. Best with small volumes.	Likely not large enough for batch blending. Durability.
Commercial blenders e.g. Vitamix®, Omniblend®, BlendTec®, Oster®	Powerful – will blend most foods. Good for batch blending and large quantities. Many have self-clean settings. Long product guarantees. Durable.	Can be very noisy. High initial cost.

What to do if tube blocks.

- Soak outside of tube in warm water or wrap with a warm flannel to try and break down the blockage and then massage the tube in the area of the blockage gently to try and work it out
- Attach a syringe with warm, previously boiled water, and use a push/pull technique to try to remove the blockage
- The blockage may be in the extension set, remove this as it is easier to unblock when not attached to the patient, if unsuccessful at unblocking, use a new extension set
- Contact the community nurse for advice/support

Coming into hospital.

The patient/family must understand that due to the complexities associated with offering blended diet, that there may be some limitations in who would be able to administer blended diet on the ward. This may vary from hospital to hospital.

Some hospitals are happy for families to administer blended feeds in hospital. Sometimes ward staff are not allowed to do this and in these circumstances an alternative feeding plan will be required if the family members are not on the ward at feed time. It may also be medically contraindicated to administer blended feeds e.g. if your child is particularly sick and requires continuous feeds.

Not all hospitals allow food to be brought onto the ward, and those that do will not always have a fridge or area to prepare feeds. Some hospitals are able to offer the pureed meal that is available to other patients, level 4, can be used to administer via a feeding tube after some dilution with feed, milk or other suitable nourishing liquid.

When initiating blended diet, your dietitian and nurse can support with completing a blended diet care plan for local admission. However, the administration of blended diet in hospital is also at the discretion of the ward matron. Therefore, as part of initial discussions you may be asked to supply an alternative feeding plan in place based on a commercial feed for these emergency situations.

For further assistance or to receive this information in a different format, please contact the department which created this leaflet.