



Keeping your Child Nourished

At birth, children with congenital heart diseases such as hole in the heart, tend to have lower birth weights. As the heart has to work harder to pump adequate blood for the body metabolism, children with this condition lack the energy to consume food properly and face nutritional issues such as inadequate calorie intake and inefficient calorie absorption. This leads to poor growth and development. So it is important we understand how to manage this.



Methodical feeding

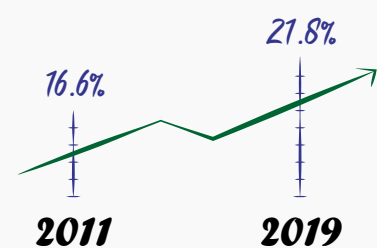
It is essential to be flexible about the child's feeding method and schedule. To ensure these children get sufficient nutrients, formula milk can be used to supplement breast milk if the mother is not able to produce enough. Some may also require special nutritional supplements such as medium-chain triglyceride (MCT) oil, glucose or protein modular products to help achieve their energy and protein requirements.

Frequent feedings up to 8-12 times per day helps them in meeting the calorie intake needed. It also ensures that each feeding time is not too taxing on their body, having to consume so much in one sitting.

Children with heart problems may require fluid restriction which limits their total feeding volume per day. We advise parents to fortify their milk by using a formula that has higher energy and nutrient density. Plain water is definitely not recommended for babies under 6 months old.

If breast or bottle feeding is not possible then we would recommend them to be on tube feeding in which the milk will be delivered through the tube from the nose or mouth straight into the esophagus and the stomach.

Stunting of children under five years of age in Malaysia



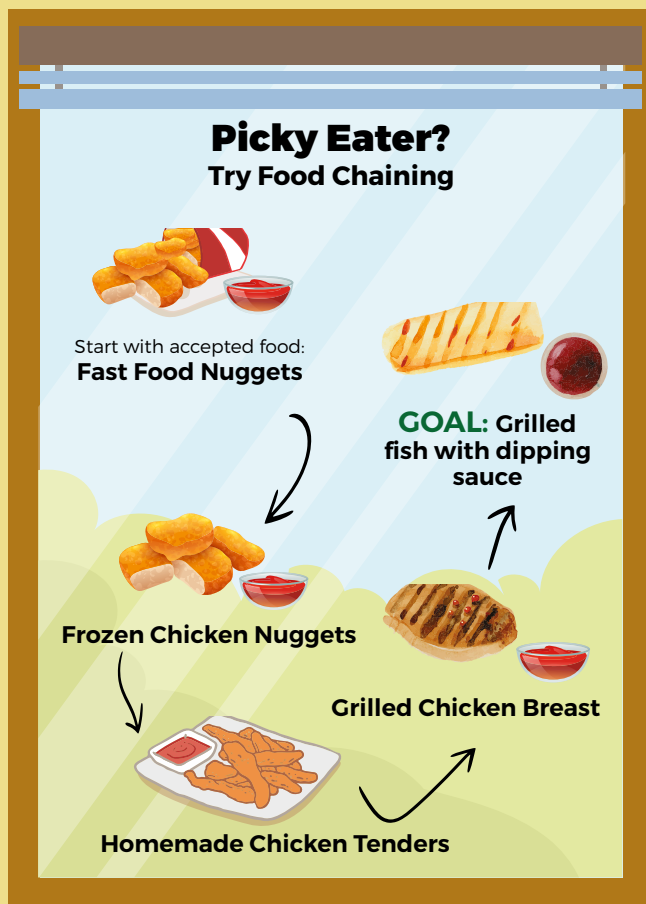
A child is malnourished if he or she has low height for age (stunting), low weight for age (underweight) or low weight for height (wasted). According to the National Health and Morbidity Survey (NHMS 2019), the prevalence of stunting in children under five years of age in Malaysia has increased.



Consistency and creativity Is key

Establish regular and consistent meal times with at least 3 main meals a day. Snacking in between meals is ok, provided they are energy dense snacks. Eating together with the family will also create a conducive environment that encourages children to eat more, as they tend to pick up on and imitate good habits.

Also, identify the food that the child prefers and use your creativity to prepare food in attractive ways to stimulate their appetite without sacrificing on their needs. Food chaining is a great idea to introduce new food to picky eaters.



Monitor your children's weight and height once a month by plotting on growth charts. Normal weight and height should fall between the 5th to 95th percentile of the growth charts based on their age and gender. The ultimate goal is to ensure children with CHD achieve optimal growth and attain healthy weight gain.

Children with congenital heart disease may only be able to consume small portions of food so these are ways to fortify food with more calories and protein.

Dietitian's note:



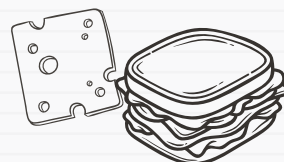
- ☐ Add egg, chicken, fish, tofu or meat into porridge, fried rice or noodles.
- ☐ Add ½ to 1 teaspoon of oil into each serving of rice porridge.



- ☐ Spread butter, margarine, jam or peanut butter on bread, biscuits, pancakes or French toast.
- ☐ Coat egg and flour on chicken or fish before deep frying it.
- ☐ Serve sweet potato fries, potato wedges or banana fritters as finger foods.



- ☐ Blend mango, banana or avocado with plain yogurt or full cream milk.
- ☐ Add a slice of cheese in tuna or egg sandwiches or burger.



Nutrition plays a fundamental role in the development and wellbeing of children with congenital heart disease. Early nutritional intervention is recommended for these children to ensure adequate nutrition for catch-up growth and optimal development. Consult a Dietitian, for the nutritional support and understanding in how to manage your child's feeding requirements.



**For further enquiries, please contact
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