

Encouraging oral diet for those children who are tube fed with Chronic Kidney Disease (CKD)

Establishing eating and drinking patterns in children with CKD can be challenging and positive early oral feeding experiences are vital. Many children with CKD are tube fed as they are unable to consume enough calories and protein orally, secondary to symptoms associated with their condition such as a poor appetite, nausea, vomiting and reflux. Realistic expectations regarding managing an oral diet need to be discussed with the family with full multi-disciplinary team involvement if possible. This can help pave the way for positive eating patterns in the future.

Many children with CKD are tube fed, receiving a large proportion or all of their nutritional requirements via a feeding tube¹. Tube feeding is indicated when nutritional requirements cannot be met orally and weight gain and growth are faltering². Tube feeding may help to reduce vomiting by slow delivery of feeds³ and successfully promote weight gain and improve linear growth^{4,5}. It can also reduce parental anxiety associated with oral feeding in this patient group¹. While this is an effective way of ensuring a child thrives and grows, long-term oral feeding difficulties can often continue throughout the course of the condition such as post kidney transplant⁶. Tube feeding can have an impact on eating and drinking skills and the child's relationship with food. Weaning a child from a tube feed can therefore be a prolonged process⁷.

The following are tips which can be considered to help build positive eating and drinking experiences:

1. Unless medically contraindicated, the goal of tube feeding should be to supplement not replace oral feeding⁸.
2. Keep feeding a positive experience and make small steps⁸. For example, from the child touching the food to licking the food is a great step. Stop oral trials at the mealtime if the child becomes upset or distressed.
3. Ensure the child is involved with food preparation and with the sights, smells and sounds of family mealtimes⁹.
4. Encourage the use of a dummy (if age appropriate) during tube feeds to maintain and develop the association between positive oral experiences and their stomach becoming full¹⁰. Encourage other positive sensory experiences while tube feeding such as mouthing toys.
5. If possible, introduce foods (within dietary restrictions) when developmentally appropriate and ready, for example introducing solid foods and finger foods⁸. Discuss with parents the signs which indicate that their child may be ready to move onto the next feeding stage. Be led by what foods the child wants to try.
6. Children with CKD often have altered taste sensations; savoury foods are often preferred to sweet foods.
7. Following transplant, consider early reduction in tube feeds to encourage appetite for foods. For example, give foods before bolus tube feeds or try overnight tube feeds to allow for oral diet in the day⁶.



Innovation in Nutrition

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Vitaflo International Ltd,
Suite 1.11,
South Harrington Building,
182 Sefton Street,
Brunswick Business Park,
Liverpool, L3 4BQ, UK.

Nutritional Helpline: **+44 (0) 151 702 4937**

www.vitafloweb.com

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**This information sheet is only intended for
Healthcare Professionals**

References

1. Royle J. Chapter 12: Kidney Disease. In: Shaw V, editor. Clinical Paediatric Dietetics. 4: John Wiley & Sons Ltd.; 2015. p. 242-81.
2. National Kidney Foundation. KDOQI Clinical Practice Guideline for Nutrition in Children with CKD: 2008 Update. American Journal of Kidney Diseases. 2009;53(S2):S1-S124.
3. Rees L, Brandt ML. Tube feeding in children with chronic kidney disease: technical and practical issues. Pediatric Nephrology. 2010;25(4):699-704.
4. Rees L, Azocar M, Borzych D, Watson AR, Büscher A, Edefonti A, et al. Growth in very young children undergoing chronic peritoneal dialysis. Journal of the American Society of Nephrology. 2011;ASN. 2010020192.
5. Kari JA, Gonzalez C, Ledermann SE, Shaw V, Rees L. Outcome and growth of infants with severe chronic renal failure. Kidney International. 2000;57:1681-7.
6. Mason SJ, Harris G, Blissett J. Tube Feeding in Infancy: Implications for the Development of Normal Eating and Drinking Skills. Dysphagia. 2005;20(1):46-61.
7. Blackman JA, Nelson CL. Reinstating oral feedings in children fed by gastrostomy tube. Clinical Pediatrics. 1985;24(8):434-8.
8. Samaan S, Secker D. Oral Feeding Challenges in Infants With Chronic Kidney Disease: Assessment and Intervention. ICAN: Infant, Child, & Adolescent Nutrition. 2014;6(3):164-71.
9. Krom H, de Winter JP, Kindermann A. Development, prevention, and treatment of feeding tube dependency. European journal of pediatrics. 2017;176(6):683-8.
10. Strologo LD, Principato F, Sinibaldi D, Appiani AC, Terzi F, Dartois AM, et al. Feeding dysfunction in infants with severe chronic renal failure after long-term nasogastric tube feeding. Pediatric Nephrology. 1997;11(1):84-6.