

# Pediatric Swallowing and Feeding Assessment and Management

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## Abstract

“Pediatric Swallowing and Feeding Assessment and Management” by J Arvedson, L Brodsky, and M Lefton-Greif (San Diego, CA: Plural Publishing: 2020) is about new interventions for feeding problems and swallowing disorders. Its contents inform speech and language specialists on the nature of swallowing, the etiology of relevant diseases, methods to evaluate disorders, and evidence-based therapies in the interventions for feeding problems in infants and children. In addition, the book could be useful for the pediatrician, gastroenterologist, otorhinolaryngology, occupational therapist, psychiatrist, nurses, lactation consultants, and families of children with feeding/swallowing problems. Intervention approaches are illustrated with case reports. In the third edition of this book, which was published in 2020, novel approaches and evaluation methods are discussed. In Chapters three to eight, the most important screening methods and instrumental evaluation (for example FEES, VFSS and ultrasound), as well as clinical evaluation of swallowing are presented. The advantages, disadvantages, implementation of each method is discussed in the ninth to thirteenth chapters, mainly focusing on interventions.

## Review

The first chapter of this book reviews the evaluations and interventions from the past to the present, team approaches, and the incidence and prevalence of the feeding/swallowing problems in different populations. These populations include premature infants, low birth weight infants, and infants with genetic, cardiac, gastrointestinal, and complex medical problems. This chapter also addresses the early diagnosis and intervention for cognitive impairments, cerebral palsy, chronic lung problems, structural defects, and neurological disorders in infants that are often associated with feeding and swallowing problems.

The first chapter is about the embryology and anatomy of organs involved infant feeding and swallowing, during the fetal period (growth of sucking/swallowing/breathing pattern in different embryonic weeks). The second chapter is about the physiology of natural swallowing and its phases. The normal growth of head and neck and its components, including the throat, larynx, respiratory system, cardiovascular system, and central nervous system are discussed. It concludes by identifying fetal abnormalities that affect swallowing and feeding problems.

In chapters Three to Eight, clinical and neurodevelopmental evaluation of swallowing and feeding, risk factors, related diseases and evaluation of cranial nerves are reviewed. According to the authors of this book, the anatomical relationship of the upper airways with the structures of the upper gastrointestinal tract which are involved in swallowing, require precise coordination of

respiration system, laryngeal closure, upper esophageal sphincter, requiring physical evaluation of these structures. As a result, airway protection is the first and most important physiological function for the newborn. The study of children's gastrointestinal (GI) tract is often associated with swallowing and feeding problems. In certain GI problems, the baby or child has to use feeding tubes for safe feeding. Chapter Five investigates the normal functioning of the pediatric digestive system and clarifies how deficits in the pediatric digestive system affect swallowing and feeding. The crucial role of intact feeding in premature infants, full-term and older children (from birth to 18 years old) is discussed in Chapter Six. In addition, this chapter describes the physical evaluation as well as intervention strategies for infants suffering from feeding/swallowing problems. Since the management and treatment of these disorders follow a team approach, the authors of this book make recommendations regarding appropriate referrals for further evaluation by professionals and referral criteria are listed. All professionals place emphasis on the participation of caregivers with team members (Chapter Seven).

Chapters Nine through Thirteen review the interventions used in dealing with feeding/swallowing problems in infants and children. In chapter nine, the general principles for all interventions are discussed, presenting the evidence base. The framework for intervention is explained, based on the WHO and International Classification of Functioning, Disability and Health. It also explains about various tools (including spoons, straws and special utensils) and modifying food consistencies to improve feeding/swallowing problems. Chapter Ten focuses on the pulmonary consequences of aspiration and special considerations needed for infants/children with underlying lung disease. According to the authors of this book, there are no evidence-based approaches to diagnose and manage aspiration in the pediatric population. Excessive salivation can cause constant moisture, contamination of clothing, bad breath or pain around the mouth, chin, infection, oral and skin problems, dehydration, chewing problems, speech interference and communication deficits. Drooling and its interventions are considered in Chapter Eleven. Genetic medical professionals, including clinical geneticists and genetic counselors, are important members of the medical care team. Genetic abnormalities can lead to significant deficits in the swallowing skills of infants and children. Chapter Twelve provides an overview of recent improvement in laboratory and analytical technology for genetic testing, as well as guidance for the involvement of a genetic medicine specialist in the testing process. Since behavior-related problems (for example, children with autism) can also have a negative impact on proper feeding, the final chapter (thirteen) discusses those that relate to feeding/swallowing problems.

Thus, in general, this book investigates the etiology, evaluation and interventions for feeding/swallowing problems. We can recommend it as a comprehensive source for the science of swallowing intervention at different ages in infants and children. In public health nutrition, this may be a useful adjunct for those dealing with breastfeeding in particular.