

# ORAL AND NON-ORAL SENSORIMOTOR STIMULATION IN PRETERM INFANTS: BIBLIOGRAPHIC REVIEW

## *Estimulação sensoriomotora intra e extra-oral em neonatos prematuros: revisão bibliográfica*

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### ABSTRACT

Prematurity is one of the most prevalent factors in children's hospital. The speech therapy performed in hospitals focusing on premature newborn has gained more space. This intervention had as main purpose the detection of problems related with feeding and provides solutions to newborns that use enteral tubes due to organic immaturity. The use of techniques has been exploited aiming the maturation of oral sensorimotor system in a more accelerated way, besides a safe transition to full oral feeding. The purpose of this study is to conduct a systematic review of national and international literature in order to list the different techniques and elucidate their effectiveness to the maturation of oral sensorimotor system in preterm neonates who remain in hospital. According to the literature, the most used techniques in Brazil were the non-nutritive sucking with minimal gloved finger or orthodontic pacifier. In other countries, the most cited techniques were non-nutritive sucking on pacifier and stimulation of the oral sensorimotor system. The techniques used in Brazil and abroad have reflected positively on the development of oral functions of neonates. Taking into account the need to promote exclusive breastfeeding, recent publications have shown alarming and disturbing percentage of use of synthetic nozzles for stimulation in neonatal intensive care.

**KEYWORDS:** Infant, Newborn, Infant, Premature, Feeding, Deglutition Disorders, Intensive Care, Neonatal, Breast Feeding

### INTRODUCTION

Speech therapy performed in hospitals focusing newborns under risk has reaching more space. It aims to detect problems and propose solutions to neonates presenting difficulties with oral feeding (OF), due to their organic immaturity<sup>1</sup>.

The speech pathology therapist is part of the minimum team of professionals working with newborns under risk in Neonatal Intensive Care Units (NICU). Their participation is determined by the Ministry of Health under regulation nº 930 in force since May 10<sup>th</sup> of 2012<sup>2</sup>. The professionals

evaluates newborns that do not coordinate sucking, swallowing and breathing (SSB), lethargic neonates with weak sucking, apnea, declining saturation levels while feeding, gastroesophageal reflux episodes, coughing while or after swallowing and those who are on gastric tube<sup>3</sup>.

Prematurity is one of the main factors that provoke neonatal complications, because retains newborn's (NB) natural development. Besides, the preterm infant is inclined to other future complications, as cognitive function development compromising<sup>4</sup>.

According to World Health Organization (WHO), the preterm newborn (PTNB) or premature is the one that was born before the 37<sup>th</sup> gestational week. The classification for those neonates is based on the gestational age (GA), birth weight, on the relation weight and GA, and also corrected gestational age (CGA). These data are used on the evaluation of baby's size and development after the 40<sup>th</sup> week<sup>5</sup>.

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web the direction of a vector  $v$  is the unit vector  $u$  parallel to  $v$   $u = \frac{v}{|v|}$  b given two points  $p$   $q$  addition the sum  $q$  the vector from  $p$  to  $q$  is denoted  $\vec{pq}$  or resultant  $v + w$  of two vectors  $v$  and  $w$  is the diagonal of the parallelogram with sides  $v$   $w$   $d$

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