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## Introduction

Hearing is a fundamental element for the acquisition and development of language. Severe/profound hearing loss limits social, linguistic and cognitive development of children, making the rehabilitation an urgent matter. Since 1994 the joint committee on Infant Hearing recommends the diagnosis until 3 months and intervention until 6 months of age and the Grupo de Rastreio e Intervenção da Surdez Infantil (GRISI) recommends the implementation of universal screening programs in the first days of life and, in cases of hearing loss, an early and adequate intervention, until six months.

## Objective

To compare the impact of early rehabilitation in children with severe to profound hearing loss, before and after six months of age.

## Results

### Intervention before 6 months

- Normal linguistic and cognitive development (5)
- Use of more vowels, consonants and words (5)
- Global development similar to that of a normal child (2)

### Intervention after 6 months

- Language delay that increases with age (7)
- Worst syntax capabilities (5)
- Worst academic performance (6)

## Methodology

The article research was made using the databases PubMed and B-On, using the key words: "severe/profound bilateral hearing loss", "rehabilitation", "infants" and "new born", in Portuguese and English. The inclusive criteria were: children with no more than three years and severe/profound hearing loss. Of a total of 16 articles, 10 were select for use.

Fig.1- Hearing impaired child



<http://bit.ly/2WiwQxU>

According to some of the authors of articles used in this revision, children rehabilitated before six months had a better global development, especially in the cognitive and language processes. After three years, the oral language acquisition process is more difficult. As such, it is argued that the diagnosis should be made until three months of age and therapeutic intervention until six months of age. It's fundamental that the neonate diagnosis program functions correctly to make sure every hearing impairment is discovered as early as possible.

## Conclusion

Early rehabilitation minimizes the impact of hearing loss in children, making their global development similar to a normal child's. The exposure to sound stimulus promotes the maturation of the auditory cortex, allowing a child to identify familiar voices. Without this stimulus there is no maturation, and this is only possible until the 4-5 years of life, period of great neuronal plasticity. After this period the possibility of hearing is reduced and with it the acquisition and development of the language. It is therefore imperative that there is auditory stimulus as early as possible. With early rehabilitation it's possible to minimize the negative impact of hearing loss.

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