

The pediatrics Digit-in-Noise Test (pDIN)

I. Saadane, S.T. Goverts, J.M. Festen & C. Smits

Department of ENT-Audiology, VU University Medical Center, Amsterdam

i.saadane@VUmc.nl

Objective: Recently, we developed a speech-in-noise test with digit-triplets as speech material, the digits-in-noise test (DIN-test). This test measures the ability of understanding speech in noise without a large demand on cognitive skills, e.g., language proficiency. The objective of the current study is to develop a pediatric version of this DIN-test (the pDIN), and to determine normative data for this test in children with normal hearing.

Subjects and Method: The essential difference between the pDIN-test and the original DIN-test is the use of single digits instead of triplets. Furthermore, animations are presented to children during the test to make it enjoyable. The pDIN was related to the DIN test by testing 10 adults with normal hearing and with simulated hearing loss. Native Dutch children from 4 to 12 with normal hearing of an Amsterdam primary school took part in the normative study.

Results: The pDIN gives the same results as the original DIN test in a group of normal hearing adults. Normative data in primary school children show an increase in ability with age. The test could be performed in nearly all children.

Conclusion: Assessing speech-in-noise recognition abilities in children is important, from a perspective of diagnostics, and rehabilitation as well. The pDINtest is a reliable and easy-to-perform test, even for children of 4 years of age.