Background:
Cognition is a complex concept that concerns the human ability to preserve and use information. Our cognition has a great impact on our ability to assimilate education and put it into practice during the school years. Studies have shown that the cognitive ability can improve with an increased intake of omega-3 fatty acids among both infants, school children with ADHD and elderly. This makes it interesting to examine whether the cognition also can be improved among healthy children without any neuropsychiatric diagnosis.

Objective:
The aim of this systematic review is to investigate if there are evidence to support that supplementation with omega-3 fatty acids has beneficial effects on cognition in children.

Search strategy:
Searches were performed in the databases PubMed and Scopus with the keywords omega-3, cognition, child and learning.

Selection criteria:
Age six to twelve years old, RCT's, human studies, articles written in Swedish or English, children without neuropsychiatric conditions and children well-nourished.

Data collection and analysis:
A total of seven articles met the search criteria, of which five were critical reviewed. The articles were reviewed by the SBU audit template for RCT's. The strength of evidence was evaluated using the GRADE system.

Main results:
According to the reviewed articles there are moderate evidence (+++) that omega-3 supplementation affects the reading comprehension among children and low evidence that omega-3 supplementation affects the reading ability among children.

Conclusions:
There are no significant evidence that supplementation with omega-3 fatty acids benefits reading comprehension and reading ability among children during interventions between eight and 40 weeks.