

Summary of findings:



### 3 Relative effect for association: breastfeeding compared to other feeding for prevention of otitis media

**Patient or population:** Children aged 0 to 8 years.

**Setting:** Community / Primary health care.

**Intervention:** Breastfeeding. Duration varied from 6 months to 8 years.

**Comparison:** Other feeding.

Outcome № of participants (studies)	Relative effect (95% CI)	Anticipated absolute effects (95% CI)			Quality	What happens
		Without Breastfeeding / Never / "Less" Breastfeeding	With Breastfeeding / Ever / "More" Breastfeeding	Difference		
Annual incidence rate of AOM episodes in the first two years of life - exclusive breast feeding compared with nonexclusive breastfeeding for the first 6 months of life. assessed with: physician/doctor diagnosed AOM, parent/self-reported AOM, or AOM recorded on health-related databases. follow up: median 2 years № of participants: 17735 (5 observational studies) <sup>1,a</sup>	<b>OR 0.57</b> (0.44 to 0.75)	No raw data available			 VERY LOW <sup>b,c</sup>	In children exclusively breastfed for first 6 months of life compared nonexclusive breast feeding there are possibly fewer AOM episodes in first 2 years of life.  NNT not evaluable
Annual incidence rate of AOM episodes in first two years of life - ever breast fed compared no never breast fed over those two years assessed with: physician/doctor diagnosed AOM, parent/self-reported AOM, or AOM recorded on health-related databases. follow up: median 2 years № of participants: 19650 (5 observational studies) <sup>1,d</sup>	<b>OR 0.67</b> (0.56 to 0.80)	No raw data available			 VERY LOW <sup>b,c</sup>	In children breastfed compared to other feeding there are possibly fewer AOM episodes in first 2 years of life.  NNT not evaluable

Summary of findings:



### 3 Relative effect for association: breastfeeding compared to other feeding for prevention of otitis media

**Patient or population:** Children aged 0 to 8 years.

**Setting:** Community / Primary health care.

**Intervention:** Breastfeeding. Duration varied from 6 months to 8 years.

**Comparison:** Other feeding.

Outcome № of participants (studies)	Relative effect (95% CI)	Anticipated absolute effects (95% CI)			Quality	What happens
		Without Breastfeeding / Never / "Less" Breastfeeding	With Breastfeeding / Ever / "More" Breastfeeding	Difference		
Annual incidence rate of AOM episodes in first two years of life: "more" versus "less" breastfeeding assessed with: physician/doctor diagnosed AOM, parent/self-reported AOM, or AOM recorded on health-related databases. follow up: median 2 years № of participants: 39380 (12 observational studies) <sup>1,e</sup>	<b>OR 0.67</b> (0.59 to 0.76)	No raw data available			 VERY LOW <sup>b,f</sup>	In children breastfed "more" compared to "less" there are possibly fewer AOM episodes in first 2 years of life.  NNT not evaluable
Risk of AOM beyond two years of age: "more" versus "less" breastfeeding assessed with: physician/doctor diagnosed AOM, parent/self-reported AOM, or AOM recorded on health-related databases. follow up: range 2 to 8 years № of participants: 3943 (7 observational studies) <sup>1,g</sup>	<b>OR 1.03</b> (0.59 to 1.79)	No raw data available			 VERY LOW <sup>b,h</sup>	In children breastfed "more" compared to "less" there is possibly no difference in long term outcomes of AOM.  NNT not evaluable

\*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval; RR: Risk ratio; NS: Not significant; NNT: Number needed to treat; NNH: Number needed to harm

**GRADE Working Group grades of evidence**

**High quality:** We are very confident that the true effect lies close to that of the estimate of the effect

**Moderate quality:** We are moderately confident in the effect estimate: The true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different

**Low quality:** Our confidence in the effect estimate is limited: The true effect may be substantially different from the estimate of the effect

**Very low quality:** We have very little confidence in the effect estimate: The true effect is likely to be substantially different from the estimate of effect

## Explanations

- a. Studies taken from: Bowatte 2015 (Duffy 1997, Hetzner 2009, Ladomenou 2010, Raisler 1999, Scariati 1997)
- b. Risk of Bias: Recall bias; some studies had mailed questionnaires which may lead to mis-classification of disease process.
- c. Inconsistency: High heterogeneity noted with complete data.
- d. Studies taken from: Bowatte 2015 (Hetzner 2009, Labout 2011, Raisler 1999, Teele 1989, Scariati 1997)
- e. Studies taken from: Bowatte 2015 (Alho 1990, Duffy 1997, Duncan 1993, Freeman 2007, Hetzner 2009, Kero 1987, Labout 2011, Ladomenou 2010, Raisler 1999, Teele 1989, Vernacchio 2004, Scariati 1997)
- f. Inconsistency: High heterogeneity noted with complete data.
- g. Studies taken from: Bowatte 2015 (Fridel 2014, Li 2014, Teele 1989, Hatakka 2010, Homoe 1999, Patel 2006, Voganzianos 2007)
- h. Inconsistency: High heterogeneity

## References

1. Bowatte G, Tham R, Allen KJ, Tan DJ, Lau M, Dai X, et al. Breastfeeding and childhood acute otitis media: a systematic review and meta-analysis. *Acta paediatrica (Oslo, Norway : 1992)*. 2015;104(467):85-95. Epub 2015/08/13. doi: 10.1111/apa.13151. PubMed PMID: 26265016.