*Epidemiology and Infection*

**Maternal infection during pregnancy and** **type 1 diabetes mellitus in offspring: a systematic review and meta-analysis**

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Supplementary Material

**Supplementary Table S1.** Quality of evidence in included studies

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| --- | --- | --- | --- |
| Study | Newcastle-Ottawa scale score | Total score(\* as 1 point) | Matching criteria |
| Selection | Comparability | Outcome /Exposure | Age | Sex | Time of birth | HLA genotypes | Region |
| Awadalla(2017) | \*\*\* | \*\* | \* | 6 | Yes | Yes | No | No | No |
| Blom(1989) | \*\* | \*\* | \*\* | 6 | Yes | Yes | No | No | Yes |
| Dahlquist(1995) | \*\*\* | \* | \*\* | 6 | No | No | Yes | No | No |
| Füchtenbusch(2001) | \*\*\* | \*\* | \* | 6 | No | No | Yes | Yes | Yes |
| Lee(2015) | \*\* | \*\* | \*\* | 6 | Yes | Yes | Yes | No | No |
| Lynch(2017) | \*\*\*\* | \* | \*\* | 7 | No | No | No | Yes | No |
| Majeed(2011) | \*\*\*\* | \* | \*\* | 7 | Yes | No | No | No | No |
| Marshall(2004) | \*\*\* | \*\* | \* | 6 | Yes | No | Yes | No | No |
| McKinney(1997) | \*\*\* | \*\* | \*\* | 7 | Yes | Yes | No | No | No |
| Patterson(1999) | \*\*\* | \* | \*\* | 6 | Yes | No | No | No | No |
| [Sadeharju](https://www.ncbi.nlm.nih.gov/pubmed/?term=Sadeharju K[Author]&cauthor=true&cauthor_uid=12699416" \o ")(2003) | \*\* | \*\* | \*\* | 6 | No | Yes | Yes | Yes | No |
| Salminen(2003) | \*\*\* | \*\* | \* | 6 | No | Yes | Yes | Yes | No |
| Šipetić(2005) | \*\* | \*\* | \*\* | 6 | Yes | Yes | No | No | Yes |
| Stene(2003) | \*\*\*\* | - | \*\* | 6 | No | No | No | No | No |
| Visalli(2002) | \*\*\* | \*\* | \*\* | 7 | No | No | Yes | No | Yes |
| Viskari(2002) | \*\*\*\* | \*\* | \*\* | 8 | Yes | Yes | No | No | Yes |
| Viskari(2012) | \*\*\*\* | \*\* | \*\* | 8 | No | Yes | Yes | Yes | Yes |
| Wahlberg(2005) | \*\*\*\* | - | \*\* | 6 | No | No | No | No | No |

|  |  |  |
| --- | --- | --- |
| Study Excluded | Effect Size | Heterogeneity |
| OR | 95% CI | *I*2,% | *P* |
| Awadalla | 1.30 | 1.06-1.59 | 71 | <0.001 |
| Blom | 1.35 | 1.09-1.68 | 72 | <0.001 |
| Dahlquist | 1.27 | 1.04-1.55 | 69 | <0.001 |
| Fuchtenbusch | 1.35 | 1.10-1.65 | 71 | <0.001 |
| Lee | 1.33 | 1.08-1.63 | 72 | <0.001 |
| Lynch | 1.39 | 1.11-1.73 | 68 | <0.001 |
| Majeed | 1.27 | 1.04-1.56 | 69 | <0.001 |
| Marshall | 1.29 | 1.05-1.58 | 70 | <0.001 |
| McKinney | 1.35 | 1.09-1.67 | 72 | <0.001 |
| Patterson | 1.37 | 1.10-1.71 | 72 | <0.001 |
| [Sadeharju](https://www.ncbi.nlm.nih.gov/pubmed/?term=Sadeharju K[Author]&cauthor=true&cauthor_uid=12699416" \o ") | 1.30 | 1.06-1.59 | 71 | <0.001 |
| Salminen | 1.34 | 1.09-1.64 | 72 | <0.001 |
| Sipetic | 1.25 | 1.04-1.50 | 64 | <0.001 |
| Stene | 1.39 | 1.15-1.69 | 66 | <0.001 |
| Visalli | 1.30 | 1.05-1.60 | 68 | <0.001 |
| Viskari | 1.33 | 1.07-1.64 | 72 | <0.001 |
| Viskari | 1.30 | 1.05-1.60 | 71 | <0.001 |
| Wahlberg | 1.39 | 1.09-1.77 | 72 | <0.001 |

**Supplementary Table S2**. Sensitivity analysis result for studies included in meta-analysis

**Supplementary Fig S1.** Pooled odds ratios in subgroup analysis stratified by study design



**Supplementary Fig S2.** Pooled odds ratios in subgroup analysis stratified by outcomes (islet autoimmunity or T1DM)

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**Supplementary Fig S3.** Pooled odds ratios in subgroup analysis stratified by different methods to confirm gestational infection

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**Supplementary Fig S4.** Pooled odds ratios for studies tested enterovirus infection in mother during pregnancy

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**Supplementary Fig S5.** Pooled odds ratios in subgroup analysis stratified by study quality

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**Supplementary Fig S6.** Pooled odds ratios in sensitivity analysis based on the study size

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**Supplementary Fig S7.** Pooled odds ratios for studies matched on HLA-DR genotype

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**Supplementary Fig S8.** Pooled odds ratios for studies investigated children <10 years

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