**Supplemental Table 1. The quality of included studies assessed by the Newcastle Ottawa Scale a**

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| --- | --- | --- | --- | --- |
|  | **Selection** | **Comparability** | **Outcome** | **Total stars** |
| Study | Representativeness of exposed cohort | Selection of the non-exposedcohort | Ascertainment of exposure | Demonstration that outcome of interest was not present at start of study | Comparabilityof cohorts on the basis of the design or analysis | Assessment of outcome | Was follow-up long enough foroutcomes tooccur | Adequacyof followup ofcohorts |  |
| Knekt, 1996  | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 6 |
| Shin, 2002 | 0 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 8 |
| McCullough, 2005 | 0 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 7 |
| Kesse Guyot, 2007 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 7 |
| Lin, 2007  | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 8 |
| Park, 2009  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 7  |
| Larsson, 2009 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 8 |
| Hjartaker, 2010 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 7 |
| Li, 2013  | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 7 |
| Gerkinger, 2013  | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 6 |
| Abbas, 2013 | 1 | 1 | 1 | 1  | 1 | 1 | 1 | 0 | 7 |

a A study can be awarded a maximum of one star for each numbered item within the Selection and Outcome categories and a maximum of two stars for Comparability.

**Selection**:

1. Representativeness of exposed cohort

Star assigned if cohort was truly or somewhat representative of the average calcium-consumer in the community/population. Note that stars were not assigned where study population was sampled from a special population (i.e. participants of clinical trials or health examinations, nurses, African-American women, Singaporean Chinese women, postmenopausal women).

1. Selection of non-exposed cohort

Star assigned where non-exposed persons were drawn from the same population as the exposed participants.

1. Ascertainment of exposure

 Star assigned where diets were assessed using structured interviews, or where articles stated that the self-administered questionnaires had been validated.

1. Demonstration that outcome was not present at start of study:

Star assigned where participants with prior breast cancer diagnosis at baseline were excluded.

**Comparability**:

1. Comparability of cohorts on the basis of the design or analysis

One star assigned where aged was controlled for in analyses.

Second star assigned where other important potential confounders were controlled for in analyses (i.e. BMI, parity, age at first birth, age at menarche, menopausal status, family history of breast cancer, history of benign breast disease, use of contraceptives or hormones, physical activity)

**Outcome**:

1. Assessment of outcome

Star assigned where outcomes were identified through medical records/ record linkage.

2) Was follow-up long enough for outcomes to occur

Star assigned where mean years of follow-up was >5 years

3) Adequacy of follow up of cohorts

Star assigned where the follow-up rate was >80%. Note that stars were not assigned where these data were not available.

**Supplemental Figure 1.** Calcium intake and risk of breast cancer for the highest versus the lowest categories of calcium intake.



**Supplemental Figure 2.** Non-linear dose-response relation between calcium intake and breast cancer risk.

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**Supplemental Figure 3**. Linear dose–response analysis on breast cancer risk associated with a 300 mg/day increase in dietary calcium and supplemental calcium intake.