**Supplementary Table 1.** Search terms for literature search

|  |  |
| --- | --- |
| **Databases** | **Search terms** |
| PubMed | ((((((((((((((n-3) OR omega-3) OR marine) OR docosahexaenoic) OR eicosapentaenoic) OR DHA) OR EPA) OR a-linolenic acid) OR ALA) OR Docosapentaenoic) OR DPA)) AND (((Colorectal) OR colon) OR rectal)) AND (((cancer) OR neoplasms) OR carcimoma)) |
| Embase | ('n 3':ti,ab,kw OR 'omega 3':ti,ab,kw OR marine:ti,ab,kw OR docosahexaenoic:ti,ab,kw OR eicosapentaenoic:ti,ab,kw OR dha:ti,ab,kw OR epa:ti,ab,kw OR 'a-linolenic acid':ti,ab,kw OR ala:ti,ab,kw OR docosapentaenoic:ti,ab,kw OR dpa:ti,ab,kw) AND (colorectal:ti,ab,kw OR colon:ti,ab,kw OR rectal:ti,ab,kw) AND (cancer:ti,ab,kw OR neoplasms:ti,ab,kw OR carcinoma:ti,ab,kw) |

**Supplementary Table 2**. Summary of pooled relative risks (RR) of colorectal cancer risk for marine n-3 PUFAs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variable** | **No. of studies** | **RR** | **95% CI** | ***P* for difference** |
|  |  |  |  |  |
| High versus low marine n-3 PUFA intake | | | | |
| **All studies** | 13 | 0.98 | 0.92-1.05 |  |
| **Sex** |  |  |  |  |
| Male | 5 | 0.97 | 0.84-1.11 | 0.83 |
| Female | 7 | 0.98 | 0.91-1.06 |  |
| **Geographic region** |  |  |  |  |
| US | 6 | 0.97 | 0.90-1.05 |  |
| Asia | 4 | 1.11 | 0.97-1.27 | 0.11a |
| Europe | 2 | 0.88 | 0.81-0.96 | 0.13a |
| Oceania | 1 | 1.08 | 0.89-1.32 | 0.33a |
| **Cancer sites** |  |  |  |  |
| Colon | 8 | 0.95 | 0.84-1.08 | 0.49 |
| Rectal | 7 | 0.99 | 0.88-1.12 |  |
| **Duration of follow-up** |  |  |  |  |
| <median | 6 | 1.01 | 0.90-1.12 | 0.70 |
| ≥median | 7 | 0.98 | 0.89-1.08 |  |
| **Adjustment for age, BMI, smoking, alcohol, and physical activity** | | | | |
| Yes | 9 | 1.00 | 0.92-1.09 | 0.53 |
| No | 4 | 0.95 | 0.85-1.06 |  |
| Increment of 0.5 g/day in marine n-3 PUFA intake | | | | |
| **All studies** | 10 | 1.01 | 0.95-1.07 |  |

a *P* value difference in RRs of marine n-3 PUFA intake for Asia vs. US (*P*= 0.11), Europe vs. US (*P*= 0.13), and Oceania vs. US (*P*= 0.33).



**Supplementary Figure 1**. Pooled dose-response association between marine n-3 PUFA intake and colorectal cancer. Data were modeled with random-effects restricted cubic spline models with 3 knots. The vertical axis is on a log scale.