**Table 3**: Epidemiological studies on biomarkers of flavonoids and colorectal cancer risk.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Flavonoid subclass** | **Certain compound** | **Cancer subsite** | **Biomarker** | **Studya** | **Population** | **Genderb** | **Cases/controls** | **Multivariate-adjusted ORc** | **P for trendd** | **Comments** | **Reference** |
| **Flavanols** | **(-)-Epicatechin** |  | Urinary | SCS | Chinese | M | 162/806 | 0.91 (0.55-1.51) | 0.59 | 45-64 y | [33] |
| **Flavanols** | **(-)-Epicatechin** | Colon | Urinary | SCS | Chinese | M | 83/413 | 0.76 (0.37-1.53) | 0.30 | 45-64 y | [33] |
| **Flavanols** | **(-)-Epicatechin** | Rectum | Urinary | SCS | Chinese | M | 79/393 | 1.09 (0.51-2.30) | 0.80 | 45-64 y | [33] |
| **Flavanols** | **(-)-Epigallocatechin** |  | Urinary | SCS | Chinese | M | 162/806 | 0.76 (0.47-1.24) | 0.28 | 45-64 y | [33] |
| **Flavanols** | **(-)-Epigallocatechin** | Colon | Urinary | SCS | Chinese | M | 83/413 | 0.40 (0.19-0.83) | 0.02\* | 45-64 y | [33] |
| **Flavanols** | **(-)-Epigallocatechin** | Rectum | Urinary | SCS | Chinese | M | 79/393 | 1.25 (0.62-2.52) | 0.62 | 45-64 y | [33] |
| **Flavanols** | **4`-O-methyl epigallocatechin** |  | Urinary | SCS | Chinese | M | 162/806 | 0.68 (0.42-1.10) | 0.09 | 45-64 y | [33] |
| **Flavanols** | **4`-O-methyl epigallocatechin** | Colon | Urinary | SCS | Chinese | M | 83/413 | 0.41 (0.20-0.84) | 0.006\* | 45-64 y | [33] |
| **Flavanols** | **4`-O-methyl epigallocatechin** | Rectum | Urinary | SCS | Chinese | M | 79/393 | 1.03 (0.52-2.06) | 0.86 | 45-64 y | [33] |
| **Isoflavones** |  |  | Serum | EPIC-Norfolk | English | F, M | 214/877 | 1.01 (0.94-1.08) | 0.866 | 45-75 y | [34] |
| **Isoflavones** |  |  | Urinary | EPIC-Norfolk | English | F, M | 146/686 | 1.03 (0.95-1.11) | 0.495 | 45-75 y | [34] |
| **Isoflavones** | **Genistein** |  | Serum | EPIC-Norfolk | English | F, M | 214/877 | 0.98 (0.94-1.03) | 0.43 | 45-75 y | [34] |
| **Isoflavones** | **Genistein** |  | Urinary | EPIC-Norfolk | English | F, M | 146/686 | 1.00 (0.96-1.04) | 0.90 | 45-75 y | [34] |
| **Isoflavones** | **Daidzein** |  | Serum | EPIC-Norfolk | English | F, M | 214/877 | 1.01 (0.97-1.06) | 0.57 | 45-75 y | [34] |
| **Isoflavones** | **Daidzein** |  | Urinary | EPIC-Norfolk | English | F, M | 146/686 | 1.03 (0.98-1.09) | 0.21 | 45-75 y | [34] |
| **Isoflavones** | **Glycitein** |  | Serum | EPIC-Norfolk | English | F, M | 214/877 | 1.00 (0.94-1.06) | 0.89 | 45-75 y | [34] |
| **Isoflavones** | **Glycitein** |  | Urinary | EPIC-Norfolk | English | F, M | 146/686 | 1.03 (0.99-1.07) | 0.15 | 45-75 y | [34] |
| **Isoflavones** | **Equol** |  | Serum | EPIC-Norfolk | English | F, M | 214/877 | 1.04 (0.99-1.09) | 0.16 | 45-75 y | [34] |
| **Isoflavones** | **Equol** |  | Urinary | EPIC-Norfolk | English | F, M | 146/686 | 0.98 (0.95-1.02) | 0.40 | 45-75 y | [34] |
| **Isoflavones** | **O-Desmethylangolensin** |  | Serum | EPIC-Norfolk | English | F, M | 214/877 | 1.01 (0.96-1.07) | 0.67 | 45-75 y | [34] |
| **Isoflavones** | **O-Desmethylangolensin** |  | Urinary | EPIC-Norfolk | English | F, M | 146/686 | 1.01 (0.96-1.06) | 0.69 | 45-75 y | [34] |

aEPIC: The European Prospective Investigation into Cancer and Nutrition; SCS: The Shanghai Cohort Study; bF: Female; M: Male; cOR: Odds Ratio; dStatistically significant effects (p for trend < 0.05) are marked by asterisk.