

**Table S4.** Summary of Baseline Characteristics of the Included Studies

Source	Nation	Period	Population	BMI	Dietary Assessment	Case Ascertainment	Case (Cohort size)	Magnesium intake (mg/day) highest VS. the lowest [Adjusted RR (95% CI)]
Salmeron 1997 <sup>11</sup>	USA	1986-1992	M; 40-75 y	25.5	validated SFFQ	self-reported questionnaire	523 T2D (42759)	461 VS. 262 (0.72 (0.54-0.96))
Salmeron 1997(2) <sup>12</sup>	USA	1986-1992	F; 40-65 y	25.1	validated SFFQ	self-reported questionnaire	915 T2D (65173)	338 VS. 222 (0.62 (0.50-0.78))
Ascherio 1998 <sup>13</sup>	USA	1986-1994	M; 40-75 y	NA	validated FFQ	self-reported questionnaire	328 stroke (43738)	425 VS. 243 (0.92 (0.58-1.46))
Iso 1999 <sup>14</sup>	USA	1980-1994	F; 34-59 y	22.7	FFQ	self-reported questionnaire	690 stroke (85764)	381 VS. 211 (0.80 (0.63-1.01))
Kao 1999 <sup>15</sup>	USA	NA	M/F; 45-64 y	27.2	FFQ	self-reported questionnaire	black: 367 T2D (2622) white: 739 T2D (9506)	374 VS. 264 (0.95 (0.52-1.74)) 418 VS. 308 (0.80 (0.56-1.14))
Liu 2000 <sup>16</sup>	USA	1976-1984	F; 38-63 y	24.8	validated FFQ	self-reported questionnaire	1879 T2D (75521)	342 VS. 248 (0.75 (0.63-0.89))
Meyer 2000 <sup>17</sup>	USA	1986-1992	F; 55-69 y	26.8	validated FFQ	self-reported questionnaire	1141 T2D (35998)	362 VS. 220 (0.67 (0.55-0.82))
Hodge 2004 <sup>18a</sup>	multiple	1990-1994	M/F; 45-64 y	26.1	validated FFQ	self-reported questionnaire	365 T2D (31641)	500 increment per day
Lopez 2004 <sup>19</sup>	USA	M: 1986-1998 W: 1980-1998	M; 40-75 y F; 30-35 y	25.4 24.3	validated SFFQ	self-reported questionnaire	1333 T2D (42872) 4085 T2D (85060)	457 VS. 314 (0.72 (0.58-0.89)) 373 VS. 222 (0.73 (0.65-0.82))
Song 2004 <sup>20</sup>	USA	1993-2001	F; $\geq 45$ y <sup>c</sup>	26	SFFQ	self-reported questionnaire	918 T2D (38025)	433 VS. 255 (0.89 (0.71-1.10))
Song 2005 <sup>21</sup>	USA	1993-2003	F; 39-89 y	26	FFQ	follow-up examination	368 stroke (39876)	433 VS. 255 (0.90 (0.65-1.26))
Liu 2006 <sup>22</sup>	USA	1996-2006	F; 47-63 y	25.8	validated SFFQ	self-reported questionnaire	1603 T2D (37183)	340 VS. 307 (0.80 (0.67-0.95))
Pereira 2006 <sup>23</sup>	USA	1986-1997	F; 56-66 y	26.7	validated FFQ	self-reported questionnaire	1418 T2D (28812)	334 VS. 281 (0.78(0.61-1.01))
Pittas 2006 <sup>24</sup>	USA	1980-2000	F; 30-55 y	24.1	validated SFFQ	self-reported questionnaire	4843 T2D (83779)	352 VS. 258 (0.74 (0.67-0.82))
Van 2006 <sup>25</sup>	multiple	1995-2003	F; 21-69 y	27.6	validated FFQ	self-reported questionnaire	1964 T2D (41186)	244 VS. 115 (0.65 (0.54-0.78))
Schulze2007 <sup>26</sup>	multiple	1994-2005	M/F; 35-65 y	26.1	validated SFFQ	self-reported questionnaire	844 T2D (25067)	377 VS. 268 (0.99 (0.78-1.26))
Larsson 2008 <sup>27</sup>	Sweden	1985-2004	M; 50-69 y	26.4	validated FFQ	follow-up examination	3370 stroke (26556)	575 VS. 382 (0.91 (0.77-1.07))
Weng 2008 <sup>28</sup>	Taipei	1989-2002	M/F; $\geq 40$ y	24.5	validated FFQ	Self-reported and cross-checked questionnaire	132 ischemic stroke (1772)	423 VS. 162 (0.69 (0.45-1.06))
Kirii 2009 <sup>29</sup>	Japan	1993-1998	M; 40-69 y F; 40-69 y	23.6 23.5	FFQ	self-reported questionnaire	634 T2D (25876) 480 T2D (33919)	331 VS. 245 (0.93 (0.71-1.22)) 314 VS. 248 (0.76 (0.56-1.03))
Ohira 2009 <sup>30</sup>	USA	1987-2004	M/F; 45-64 y	27.4	validated FFQ	follow-up examination	577 ischemic stroke (14221)	362 VS. 152 (0.80 (0.75-1.13))
Villegas 2009 <sup>31</sup>	China	2000-2006	F; 40-70 y	23.8	validated FFQ	follow-up examination	2273 T2D (64191)	318 VS. 214 (0.80 (0.68-0.93))
Hopping 2010 <sup>32</sup>	multiple	1993-2007	M; 45-75 y F; 45-75 y	NA	validated FFQ	self-reported questionnaire	4555 T2D (36256) 4032 T2D (39256)	278 VS. 86 (0.77 (0.70-0.85)) 300 VS. 93 (0.84 (0.76-0.93))
Kim 2010 <sup>33</sup>	USA	1985-2005	M/F; 18-30 y	24.5	validated DHQ	self-reported questionnaire	330 T2D (4497)	302 VS. 182 (0.53 (0.32-0.86))

Kirii 2010 <sup>34</sup>	Japan	NA	M/F; 40-65 y	22.9	validated FFQ	self-reported questionnaire	459 T2D (17592)	303 VS. 158 (0.64 (0.44-0.94))
Nanri 2010 <sup>35</sup>	Japan	1990-1995	M; 40-65 y F; 40-65 y	NA	validated FFQ	self-reported questionnaire	634 T2D (25872) 480 T2D (33919)	348 VS. 213 (0.86 (0.63-1.16)) 333 VS. 213 (0.92 (0.66-1.28))
Larsson 2011 <sup>36</sup>	Sweden	1998-2008	F; 49-83 y	25	validated FFQ	follow-up examination	1680 stroke (34670)	373 VS. 297 (1.02 (0.82-1.27))
Weng 2012 <sup>37</sup>	Taipei	1993-2002	M/F; ≥30 y	24	validated FFQ	follow-up examination or self-reported questionnaire	141 T2D (1604)	406 VS. 212 (0.44 (0.25-0.75))
Zhang 2012 <sup>38</sup>	Japan	1988-2006/	M; 40-79 y F; 40-79 y	22.7 22.9	validated FFQ	follow-up examination	634 stroke (23083) 620 stroke (35533)	294 VS. 173 (1.03 (0.79-1.35)) 274 VS. 175 (0.90 (0.69-1.16))
Hata 2013 <sup>39</sup>	Japan	1988-2009	M/F; 40-79 y	22.9	validated SFFQ	self-reported questionnaire	417 T2D (1999)	215 VS. 133 (0.63 (0.44-0.90))
Lin 2013 <sup>40</sup>	Taipei	1989-2002	M/F; ≥ 18 y	23.3	validated FFQ	follow-up examination and self-reported questionnaire	123 stroke (2061)	378 VS. 210 (0.62 (0.40-0.97))
Oba 2013 <sup>41</sup>	Japan	1990-2000	M; 40-69 y F; 40-69 y	23.6 23.5	validated FFQ	self-reported questionnaire	690 T2D (27769) 500 T2D (36864)	349 VS. 232 (0.84 (0.69-1.05)) 356 VS. 211 (0.69 (0.54-0.88))
Sluijs 2013 <sup>42</sup>	Netherland	NA	M/F; 21-70 y	NA	FFQ	NA	361 ischemic stroke (36359)	435 VS. 253 (0.76 (0.57-1.01))
Hruby 2014 <sup>43</sup>	USA	1995-2001	M/F; 26-81 y	27	validated FFQ	self-reported questionnaire	179 T2D (2582)	395 VS. 235 (0.49 (0.27-0.88))
Sluijs 2014 <sup>44</sup>	Netherland	NA	M/F; 21-70 y	NA	FFQ	follow-up examination	631 stroke (36094)	597 VS. 190 (0.64 (0.44-0.94))
Adebamowo 2015 <sup>45</sup>	USA	1986-2010	M; 40-75 y	25.4	validated FFQ	self-reported questionnaire	1547 stroke (42669)	467 VS. 267 (0.89 (0.71-1.11))
Adebamowo 2015(2) <sup>46</sup>	USA	1976-2006 1989-2011	F; 30-55 y F; 25-42 y	26.4 25.7	validated FFQ	self-reported questionnaire	3237 stroke (86149) 543 stroke (94715)	411 VS. 233 (0.93 (0.79-1.08))
Bain 2015 <sup>47</sup>	Britain	2002-2008	M; 40-75 y F; 40-75 y	26.5 26.2	7-day diary recall	follow-up examination	364 stroke (2000) 511 stroke (2445)	456 VS. 266 (0.81 (0.53-1.22)) 374 VS. 456 (0.82 (0.54-1.24))
Huang 2015 <sup>48</sup>	Taipei	2000-2008	M/F; ≥65 y	NA	24 h dietary recall and SFFQ	follow-up examination	231 T2D (1400)	398 VS. 103 (0.59 (0.26-1.33))
Hruby 2017 <sup>49</sup>	USA	1984-2012	F; 30-55 y	24.8			7620 T2D (69176)	390 VS. 229 (0.80 (0.73-0.88))
		1991-2013	F; 25-42 y	24.6	validated SFFQ	self-reported questionnaire	6080 T2D (91471)	424 VS. 249 (0.89 (0.81-0.99))
		1986-2012	M; mean 53.5 y	24.8			3430 T2D (42096)	469 VS. 280 (0.88 (0.77-1.00))
Kokubo 2017 <sup>50b</sup>	Japan	1990-2009 1993-2010	M; 40-69 y F; 40-69 y	23.6 23.6	FFQ	follow-up examination	2576 stroke (39505) 1846 stroke (45788)	348 VS. 213 (1.07 (0.86-1.33)) 333 VS. 213 (0.88 (0.67-1.14))
Konishi 2017 <sup>51</sup>	Japan	1992-2002	M; ≥35 y F; ≥35 y	22.6 22.1	validated FFQ	self-reported questionnaire	266 T2D (5885) 172 T2D (7640)	469 VS. 310 (1.13 (0.76-1.70)) 432 VS. 285 (0.50 (0.30-0.84))

Abbreviations: FFQ, food-frequency questionnaire; SFFQ, semi-quantitative food-frequency questionnaire; BMI, body mass index; T2D, type 2 diabetes; NA, not available.

<sup>a</sup>, different ethnicities of participants are in multiple nations cohort;

<sup>b</sup>, the dose of magnesium intake which is not available in this study is retrieved from the same cohort reported in former publication;

<sup>c</sup> the range of enrolled participants age is not mentioned.

