

評価対象論文リスト（要因：自覚的ストレス、アウトカム：糖尿病）

評価判定日：2023/9/29

①既存の系統的レビュー・メタ解析・統合解析

1	Cosgrove MP, Sargeant LA, Caleyachetty R, Griffin SJ. Work-related stress and Type 2 diabetes: systematic review and meta-analysis. <i>Occup Med (Lond)</i> . 2012;62(3):167-173.
2	Sui H, Sun N, Zhan L, Lu X, Chen T, Mao X. Association between Work-Related Stress and Risk for Type 2 Diabetes: A Systematic Review and Meta-Analysis of Prospective Cohort Studies. <i>PLoS One</i> . 2016;11(8):e0159978. Published 2016 Aug 11. doi:10.1371/journal.pone.0159978
3	Nyberg ST, Fransson EI, Heikkilä K, et al. Job strain as a risk factor for type 2 diabetes: a pooled analysis of 124,808 men and women. <i>Diabetes Care</i> . 2014;37(8):2268-2275. doi:10.2337/dc13-

②日本人集団の個別疫学研究

4	Kato M, Noda M, Inoue M, Kadowaki T, Tsugane S; JPHC Study Group. Psychological factors, coffee and risk of diabetes mellitus among middle-aged Japanese: a population-based prospective study in the JPHC study cohort [published correction appears in <i>Endocr J</i> .2011;58(5):421]. <i>Endocr J</i> . 2009;56(3):459-468. doi:10.1507/endocrj.k09e-003
5	Hirai H, Nagao M, Ohira T, et al. Psychological burden predicts new-onset diabetes in men: A longitudinal observational study in the Fukushima Health Management Survey after the Great East Japan earthquake. <i>Front Endocrinol (Lausanne)</i> . 2022;13:1008109. Published 2022 Dec 2. doi:10.3389/fendo.2022.1008109
6	Tanaka T, Takeshita S, Inoue T, Yoshino A, Sawamura T, Toda H. Psychological and traumatic stress and the risk of developing diabetes and psychiatric disorders after a disaster-relief mission: An eight-year longitudinal study of Japan Maritime Self-Defense Force personnel dispatched for the 2011 Great East Japan Earthquake disaster-relief mission. <i>J Psychiatr Res</i> . 2022;146:118-124. doi:10.1016/j.jpsychires.2021.12.046
7	Kawakami N, Araki S, Takatsuka N, Shimizu H, Ishibashi H. Overtime, psychosocial working conditions, and occurrence of non-insulin dependent diabetes mellitus in Japanese men. <i>J Epidemiol Community Health</i> . 1999;53(6):359-363. doi:10.1136/jech.53.6.359
8	Nakanishi N, Nishina K, Yoshida H, et al. Hours of work and the risk of developing impaired fasting glucose or type 2 diabetes mellitus in Japanese male office workers. <i>Occup Environ Med</i> . 2001;58(9):569-574. doi:10.1136/oem.58.9.569

■系統的レビュー・メタ解析・統合解析

No	Author	Title	Year	Study location	Category	Relative risk (95% CI)	Magnitude of association
1	Cosgrove, MP., et al.	Work-related stress and Type 2 diabetes: systematic review and meta-analysis.	2012	France, Japan, Netherlands, Sweden, Belgium, U.S, and U.K.	Job demands vs Ref Decision latitude vs Ref Job strain vs Ref. Low social support at work vs Ref Long working hours vs Ref	0.95 (0.81–1.09) 1.04 (0.86–1.21) 1.08 (0.84–1.32) 1.04 (0.88–1.20) 0.81 (-0.01–1.71)	– – – – –
2	Sui, H., et al.	Association between Work-Related Stress and Risk for Type 2 Diabetes: A Systematic Review and Meta-Analysis of Prospective Cohort Studies.	2016	Denmark, Finland, France, Sweden, and U.K.	Job demands vs Ref Decision latitude vs Ref Job strain vs Ref.	0.94 (0.72–1.23) 1.16 (0.85–1.58) 1.12 (0.95–1.32)	– – –
3	Nyberg, ST., et al.	Job strain as a risk factor for type 2 diabetes: a pooled analysis of 124,808 men and women.	2014	Japan, U.S., U.K. Canada, Sweden, Germany, Finland, France, and	Job strain vs Ref.	1.15 (1.06–1.25)	↑

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No	Author	Title	Year	Study period	Number of subjects	Source of subjects	Event followed	Number of incident cases or deaths	Participant's race	Category	Number among cases	Relative risk (95%CI)	P for trend	Confounding variables considered	Magnitude of association
4	Kato, M., et al.	Psychological factors, coffee and risk of diabetes mellitus among middle-aged Japanese: a population-based prospective study in the JPHC study cohort.	2009	Cohort I: 1990- Cohort II: 1993-10 years follow up	55,826 (24,826 men and 31,000 women)	Japan Public Health Centre-based prospective study (JPHC)	Incidence	1,601 in men and 1,093 in women	Japanese	Perceived mental stress (Men) Low Medium High Perceived mental stress (Women) Low Medium High	199 999 403 163 720 210	Ref. 1.19 (1.01-1.40) 1.36 (1.13-1.63) Ref. 1.12 (0.94-1.34) 1.22 (0.98-1.51)	0.001   0.080	age+ other known risk factors of diabetes (BMI, smoking status, alcohol drinking, family history of diabetes, physical activity, history of hypertension and coffee consumption + levels of type A behavior and hours of sleep)	↑ ↑ - -
5	Hirai, H., et al.	Psychological burden predicts new-onset diabetes in men: A longitudinal observational study in the Fukushima Health Management Survey after the Great East Japan earthquake.	2022	2011/2012- 7 years	19,590	community-dwelling	Incidence	1,699	Japanese	Kessler 6 scale <13 ≥13 PTSD Checklist-Stressor-Specific Version <44 ≥44	1316 251 1200 401	Ref. 1.09 (0.95-1.26) Ref. 1.06 (0.94-1.20)	NA	age (year), men (vs women), BMI < 18.5 (vs 18.5-24.9), BMI ≥ 25 (vs 18.5-24.9), hypertension, dyslipidemia, current smoking (vs no current smoking), former and current drinking < 40 g/day ≥ 40 g/day in men, < 20 g/day ≥ 20 g/day in women (vs never drinking), physical activity ≥ 2/week (vs < 2/week), evacuation (vs no evacuation), change in work situation (vs no change in work situation), sleep satisfied (vs not dissatisfied), education ≥ 13 years (vs < 13)	- -
6	Tanaka, T., et al.	Psychological and traumatic stress and the risk of developing diabetes and psychiatric disorders after a disaster-relief mission: An eight-year longitudinal study of Japan Maritime Self-Defense Force personnel dispatched for the 2011 Great East Japan Earthquake disaster-relief mission.	2022	2010-2018	17,639	Japan Maritime Self-Defense Force (JMSDF) personnel	Incidence	1,450	Japanese	Impact of Events Scale-Revised (IES-R) ≥25 (High post-traumatic stress responses) <25 (Low post-traumatic stress responses) Kessler 10 scale ≥25 (High general psychological distress) <25 (Low general psychological distress)	10 out of 61 270 out of 3004 15 out of 97 264 out of 2922	2.02 (1.08-3.80) Ref. 1.65 (0.98-2.78) Ref.	NA	age at baseline, sex, and rank  NA	↑↑↑ ↑
7	Kawakami, N., et al.	Overtime, psychosocial working conditions, and occurrence of non-insulin dependent diabetes mellitus in Japanese men	1999	1984-1992	2194	Japanese electrical company employees	Incidence	34	Japanese	Overtime work 0-25 hour/month 26-50 hour/month More than 50 hours/month Job strain (High overload + low control v others) Social support at work (low vs. high)		Ref. 1.67 (0.70-3.97) 3.73 (1.41-9.90) 1.34 (0.50-3.55) 1.27 (0.58-2.79)	0.009  NA NA	age, education, body mass index, alcohol consumption, smoking, leisure time physical activity, and family history	↑ ↑↑↑ - -
8	Nakanishi, N., et al.	Hours of work and the risk of developing impaired fasting glucose or type 2 diabetes mellitus in Japanese male office workers	2001	1994-1999	1266	Japanese male office workers	Incidence	54	Japanese	<8.0 hours/day 8.0-8.9 hours/day 9.0-9.9 hours/day 10.0-10.9 hours/day ≥11.0 hours/day	20 19 6 5 4	Ref. 0.90 (0.46-1.74) 0.50 (0.18-1.42) 0.49 (0.19-1.26) 0.30 (0.09-0.94)	0.014	age, occupation, position, body mass index, cigarette smoking, alcohol intake, eating breakfast, vegetable consumption, fruit consumption, regular physical exercise, family history of diabetes, systolic and diastolic blood pressures, fasting plasma glucose, total cholesterol, high density lipoprotein cholesterol, and triglycerides at entry	- ↓ ↓↓ ↓↓↓