

## 評価対象論文リスト(要因:睡眠時間、アウトカム:フレイル・サルコペニア)

評価判定日:2023/11/20

(フレイル)

### ①既存の系統的レビュー・メタ解析・統合解析

1	Pourmotabbed A, Boozari B, Babaei A, et al. Sleep and frailty risk: a systematic review and meta-analysis. Sleep Breath. 2020;24(3):1187-1197. doi:10.1007/s11325-020-02061-w
2	Wai JL, Yu DS. The relationship between sleep-wake disturbances and frailty among older adults: A systematic review. Journal of Advanced Nursing. 2020;76(1):96-108. doi:10.1111/jan.14231

### ②日本人集団の個別疫学研究

3	Nakakubo S, Makizako H, Doi T, et al. Long and short sleep duration and physical frailty in community-dwelling older adults. The Journal of nutrition, health and aging. 2018;22(9):1066-1071. doi:10.1007/s12603-018-1116-3
4	Nakakubo S, Doi T, Makizako H, et al. Association of sleep condition and social frailty in community-dwelling older people. Geriatrics Gerontology Int. 2019;19(9):885-889. doi:10.1111/ggi.13734

(サルコペニア)

### ①既存の系統的レビュー・メタ解析・統合解析

1	Pourmotabbed A, Ghaedi E, Babaei A, et al. Sleep duration and sarcopenia risk: a systematic review and dose-response meta-analysis. Sleep Breath. 2020;24(4):1267-1278. doi:10.1007/s11325-019-01965-6
2	Pana A, Sourtzi P, Kalokairinou A, Pastroudis A, Chatzopoulos ST, Velonaki VS. Association between muscle strength and sleep quality and duration among middle-aged and older adults: a systematic review. Eur Geriatr Med. 2021;12(1):27-44. doi:10.1007/s41999-020-00399-8
3	Rubio-Arias JÁ, Rodríguez-Fernández R, Andreu L, Martínez-Aranda LM, Martínez-Rodríguez A, Ramos-Campo DJ. Effect of sleep quality on the prevalence of sarcopenia in older adults: a systematic review with meta-analysis. JCM. 2019;8(12):2156. doi:10.3390/jcm8122156

### ②日本人集団の個別疫学研究

4	Ida S, Kaneko R, Nagata H, et al. Association between sarcopenia and sleep disorder in older patients with diabetes. Geriatrics Gerontology Int. 2019;19(5):399-403. doi:10.1111/ggi.13627
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(フレイル)

## ■メタ解析、系統的レビュー

Reference			Include study					Design	Category	Relative risk (95% CI or p)	Weight	Magnitude of association
Author	Title	Year	Ref No.	First author	Year	Study period	Study location	Event (*Definition)				
Pourmotabbed A, Boozari B, Babaei A, Asbaghi O, Campbell MS, Mohammadi H, Hadi A, Moradi S.	Sleep and frailty risk: a systematic review and meta-analysis	2020							lowest category of sleep duration (< 6 h) versus reference category (6–8 h)			
			21 Baniak et al	2018	USA	Pre-Frail	cross sectional	0.97(0.85, 1.12)	7.94			
			24 Nakakubo S et al	2019	japan	Pre-Frail	cross sectional	1.05(0.95, 1.17)	11.01			
			25 Nakakubo S, et al	2018	japan	Pre-Frail	cross sectional	1.12(1.07, 1.17)	18.73			
			<b>Subtotal</b>						<b>1.07(0.99, 1.15)</b>	<b>37.68</b>		
									lowest category of sleep duration (< 6 h) versus reference category (6–8 h)			
			26 Zhang et al	2016	China	Frail	cross sectional	1.24(1.13, 1.37)	11.66			
			21 Baniak et al	2018	USA	Frail	cross sectional	1.16(0.99, 1.36)	6.25			
			23 Kang et al	2018	Korea	Frail	cross sectional	1.07(0.81, 1.40)	2.67			
			24 Nakakubo S et al	2019	japan	Frail	cross sectional	1.01(0.86, 1.19)	6.19			
25 Nakakubo S, et al	2018	japan	Frail	cross sectional	1.20(1.10, 1.31)	13.11						
1 Ensrud et al	2009	USA	Frail	cross sectional	1.09(0.98, 1.20)	11.05						
22 Guo	2019	Frail	Frail	cross sectional	1.23(1.11, 1.36)	11.38						
<b>Subtotal</b>						<b>1.17(1.10, 1.23)</b>	<b>62.32</b>					
<b>Overall</b>						<b>1.13(1.07, 1.18)</b>	<b>100.00</b>	↑				
						highest category of sleep duration (> 8 h) versus reference category (6–8 h)						
21 Baniak et al	2018	USA	Pre-Frail	cross sectional	1.07(0.81, 1.41)	6.64						
24 Nakakubo S et al	2019	japan	Pre-Frail	cross sectional	1.13(1.04, 1.23)	15.76						
25 Nakakubo S, et al	2018	japan	Pre-Frail	cross sectional	1.15(1.07, 1.22)	16.76						
<b>Subtotal</b>						<b>1.14(1.08, 1.20)</b>	<b>39.17</b>					
						highest category of sleep duration (> 8 h) versus reference category (6–8 h)						
26 Zhang et al	2018	China	Frail	cross sectional	1.14(0.93, 1.40)	9.34						
21 Baniak et al	2018	USA	Frail	cross sectional	1.58(1.04, 2.40)	3.62						
23 Kang et al	2018	Korea	Frail	cross sectional	1.82(1.11, 2.97)	2.76						
24 Nakakubo S et al	2019	japan	Frail	cross sectional	1.24(1.11, 1.39)	14.13						
25 Nakakubo S, et al	2018	japan	Frail	cross sectional	1.46(1.32, 1.61)	14.97						
22 Guo	2019	China	Frail	cross sectional	1.05(0.97, 1.13)	16.01						
<b>Subtotal</b>						<b>1.28(1.09, 1.50)</b>	<b>60.83</b>					
<b>Overall</b>						<b>1.21(1.09, 1.32)</b>	<b>100.00</b>	↑				
						Daytime drowsiness						
12 Fragoso et al	2009	USA	Frail	cross sectional	1.76(1.36, 2.27)	8.24						
15 Ensrud et al	2009	USA	Frail	cross sectional	1.05(0.95, 1.17)	19.27						
24 Nakakubo S et al	2019	japan	Frail	cross sectional	1.18(1.07, 1.30)	19.37						
<b>Subtotal</b>						<b>1.25(1.02, 1.52)</b>	<b>46.87</b>					
						Sleep\disordered breathing						
1 Endeshaw, Men	2009	USA	Frail	cross sectional	1.29(0.99, 1.69)	7.72						
1 Endeshaw, Women	2009	USA	Frail	cross sectional	1.99(1.16, 3.40)	2.49						
<b>Subtotal</b>						<b>1.15(1.06, 1.24)</b>	<b>21.22</b>					
<b>Subtotal</b>						<b>1.28(1.03, 1.58)</b>	<b>31.43</b>					
						Prolonged sleep latency						
23 Kang et al	2018	Korea	Frail	cross sectional	1.40(0.88, 2.21)	3.3						
15 Ensrud et al	2009	USA	Frail	cross sectional	1.16(1.04, 1.30)	18.4						
<b>Subtotal</b>						<b>1.18(1.06, 1.31)</b>	<b>21.7</b>					
<b>Overall</b>						<b>1.21(1.11, 1.33)</b>	<b>100.00</b>	↑				