

Supplementary Table 1. Multivariable-adjusted ORs (95% CIs) for association between adult BMI or WHR and low-energy fracture according to famine exposure in early life.

	Case/Total	Nonexposed	Famine exposure			P for interaction
			Fetal	Childhood	Adolescence	
BMI at baseline^a, kg/m²						
Whole cohort*						
<24.0	195/2223	1.00 (ref)	1.36 (0.52–3.58)	2.92 (1.18–7.27)	2.15 (0.68–6.80)	
24.0–27.9	169/2182	1.13 (0.39–3.90)	3.01 (1.22–7.39)	2.14 (0.85–5.39)	1.82 (0.58–5.76)	0.0155
≥28.0	79/918	1.60 (0.46–5.63)	4.95 (1.92–12.77)	2.27 (0.86–5.99)	1.77 (0.54–5.85)	
Men**						
<24.0	44/684	1.00(ref)	4.75 (0.54–41.87)	3.71 (0.41–34.00)	1.19 (0.09–16.40)	
24.0–27.9	58/881	3.30 (0.39–28.20)	4.33 (0.51–36.90)	2.30 (0.19–27.44)	1.58 (0.12–20.68)	0.8040
≥28.0	17/329	3.67 (0.36–37.04)	2.30 (0.19–27.44)	1.35 (0.13–13.85)	1.27 (0.09–18.76)	
Women***						
<24.0	151/1539	1.00(ref)	0.86 (0.27–2.77)	2.86 (1.04–7.87)	2.93 (0.79–10.89)	
24.0–27.9	111/1301	0.24 (0.03–2.02)	2.82 (1.02–7.85)	2.29 (0.81–6.45)	2.11 (0.57–7.87)	0.0090
≥28.0	62/589	0.58 (0.07–4.97)	6.52 (2.32–18.33)	2.95 (0.99–8.72)	2.17 (0.56–8.45)	
WHR at baseline^b						
Whole cohort*						
Men<0.90, women<0.85	165/2035	1.00 (ref)	1.91 (0.78–4.64)	2.64 (1.10–6.35)	1.96 (0.63–6.09)	
Men 0.90–0.94, women 0.85–0.89	126/1683	1.41 (0.50–3.96)	3.05 (1.28–7.25)	1.75 (0.71–4.30)	1.79 (0.58–5.54)	0.2822
Men≥0.95, women≥0.90	152/1605	0.84 (0.22–3.24)	2.56 (1.01–6.49)	2.71 (1.10–6.65)	1.81 (0.58–5.65)	
Men**						
<0.90	40/800	1.00 (ref)	1.25 (0.28–5.64)	1.14 (0.25–5.27)	0.32 (0.04–2.65)	
0.90–0.94	42/604	2.24 (0.51–9.84)	3.46 (0.81–14.89)	1.00 (0.21–4.90)	1.05 (0.14–7.94)	0.4518
≥0.95	37/490	1.15 (0.18–7.21)	2.07 (0.42–10.33)	1.69 (0.35–8.24)	0.89 (0.11–7.22)	
Women ***						
<0.85	125/1235	1.00 (ref)	2.36 (0.78–7.10)	3.67 (1.24–10.84)	4.28 (1.09–16.88)	
0.85–0.89	84/1079	0.69 (0.13–3.62)	3.25 (1.10–9.62)	2.18 (0.72–6.64)	2.18 (0.55–8.71)	0.0765
≥0.90	115/1115	0.50 (0.06–4.32)	3.03 (0.96–9.58)	3.40 (1.12–10.29)	2.46 (0.62–9.80)	

Note: *Multivariable model was adjusted for age, sex, education, smoking status, drinking status and physical activity;

** adjusted for age, education, smoking status, drinking status and physical activity,

*** adjusted for age, education, smoking status, drinking status, physical activity, menopause status and hormone replacement treatment status.

^aAnalysis of BMI was further adjusted for WHR (men: <0.90, 0.90–0.94 or \geq 0.95; women: <0.85, 0.85–0.89 or \geq 0.90).

^bAnalysis of WHR was further adjusted for BMI (<18.5, 18.5–23.9, 24.0–27.9 or \geq 28.0 kg/m²).

BMI, body mass index; WHR, waist-to-hip ratio.

Supplementary Table 2. Multivariable-adjusted ORs (95% CIs) for joint association of general and abdominal obesity with risk of low-energy fracture according to famine exposure in early life among 5323 participants.

Abdominal obesity†	Overweight obesity‡	Famine exposure				P for interaction
		Nonexposed	Fetal	Childhood	Adolescence	
Whole cohort						
No	No	1.00 (ref)	1.00 (ref)	1.00 (ref)	1.00 (ref)	0.0570
	Yes	0.95 (0.22–4.14)	1.85 (0.66–5.18)	0.68 (0.42–1.11)	0.60 (0.29–1.25)	
Yes	No	0.89 (0.17–4.78)	0.56 (0.15–2.15)	0.83 (0.55–1.25)	0.70 (0.39–1.25)	
	Yes	0.92 (0.28–3.03)	2.26 (1.04–4.90)	0.69 (0.49–0.97)	0.72 (0.45–1.14)	
Men						
No	No	1.00 (ref)	1.00 (ref)	1.00 (ref)	1.00 (ref)	0.7009
	Yes	2.76 (0.23–33.13)	0.51 (0.05–4.78)	0.54 (0.22–1.34)	0.67 (0.13–3.56)	
Yes	No	–	2.11 (0.34–13.23)	1.16 (0.51–2.64)	2.00 (0.52–7.75)	
	Yes	2.36 (0.27–20.48)	1.37 (0.40–4.67)	0.64 (0.34–1.22)	2.34 (0.85–6.45)	
Women						
No	No	1.00 (ref)	1.00 (ref)	1.00 (ref)	1.00 (ref)	0.0145
	Yes	0.63 (0.06–6.42)	3.08 (0.83–11.43)	0.77 (0.43–1.38)	0.59 (0.26–1.38)	
Yes	No	2.40 (0.36–16.00)	0.28 (0.02–2.52)	0.74 (0.46–1.19)	0.51 (0.26–0.98)	
	Yes	0.45 (0.04–4.51)	3.32 (1.17–9.40)	0.69 (0.47–1.03)	0.45 (0.26–0.78)	

Note: Multivariable model was adjusted for age, sex (for whole cohort only), education, smoking status, drinking status and physical activity (menopause status and hormone replacement treatment status were further adjusted for women).

Abdominal obesity†: men ≥ 0.90 , women ≥ 0.85 .

Overweight obesity‡: BMI $\geq 24\text{kg/m}^2$.