

Table 3 Prevalence of obesity-linked type 2 diabetes mellitus (T2DM) among Arabs (continued)

Author (reference)	Country	Year	Sample size	Main findings	Notes
Albache (135)	Syrian Arab Republic	2010	806	Prevalence of T2DM: 15.6% Prevalence of T2DM in subjects with central obesity: 23.3% Prevalence of T2DM in subjects without central obesity: 5.1% (P < 0.01) Multivariate logistic regression analysis correlated high BMI with T2DM (OR 2.67; 95% CI: 1.28–5.60)	Cross-sectional study 11.2% of total sample reported having T2DM High BMI defined as ≥ 30 kg/m ² Central obesity defined as waist-to-hip ratio ≥ 0.9 for men and ≥ 0.85 for women
Naja (118)	Lebanon	2012	174	Mean BMI in diabetics: 30.8 kg/m ² Mean BMI in controls: 26.8 kg/m ² (P < 0.001) Prevalence of obesity in diabetics: 55.2% Prevalence of obesity in controls: 25.0% (P < 0.001)	Case-control study
Ghassibe-Sabbagh (119)	Lebanon	2014	946	Prevalence of obesity in diabetics: 36.0% Prevalence of obesity in controls: 17.8% (P < 0.001) Obesity associated with T2DM in multinomial logistic regression analysis (unadjusted OR 2.29; 95% CI: 1.74–3.02) (P < 0.0001)	Obesity defined as BMI ≥ 30 kg/m ²
Herman (109)	Egypt	1995	1451	Prevalence of T2DM: 9.3% Mean BMI in diabetics: 32.3 kg/m ² Mean BMI in non-diabetics: 28.9 kg/m ²	Cross-sectional study
Abolfotouh (108)	Egypt	2008	1800	Prevalence of T2DM: 3.7% Prevalence of central obesity: 24.1% Risk of diabetes significantly increased with waist circumference percentile, but not with increased waist-to-hip ratio percentile	Semi-urban and rural population Central obesity defined as waist circumference ≥ 95 cm for women and ≥ 100 cm for men, and/or waist-to-hip ratio > 0.85 in women and > 0.95 in men
Elbagir (134)	Sudan	1996	1284	Prevalence of T2DM: 3.4% Prevalence of obesity in diabetics: 77% Prevalence of obesity in non-diabetics: 2.1% BMI associated with T2DM in logistic regression analysis (RR 1.74; 95% CI: 1.32–2.28) (P = 0.0001)	Obesity defined as BMI ≥ 25 kg/m ² for women and ≥ 27 kg/m ² for men
Bouguerra (136)	Tunisia	2007	3729	Prevalence of T2DM: 9.9% In multivariate logistic regression analysis high BMI (≥ 25 kg/m ²) associated with T2DM in men (OR 1.65; 95% CI: 1.32–2.07) (P < 0.005) and women (OR 1.61; 95% CI: 1.34–1.93) (P < 0.01)	25% of the diabetic group reported having T2DM
Kadiki (120)	Libya	2001	868	Prevalence of T2DM: 14.1% Mean BMI in diabetics: 30. kg/m ² Mean BMI in non-diabetics: 27.3 kg/m ² (P < 0.001)	–
Rguibi (121)	Morocco	2006	249	Prevalence of undiagnosed T2DM: 6.4% Prevalence of T2DM in obese subjects: 9.0% Prevalence of T2DM in non-obese subjects: 2.1% (P = 0.07) BMI associated with diabetes in logistic regression analysis (r = 0.27, P = 0.003) Central obesity associated with diabetes (r = 0.378, P = 0.0001)	Female subjects only Obesity defined as BMI ≥ 30 kg/m ² Central obesity defined as waist circumference > 88 cm