

**Table 2.2.15 Case-control studies of measures of body fatness and cancer of the testis**

Reference Study location Period	Total number of cases Total number of controls Source of controls	Exposure categories	Exposed cases	Relative risk (95% CI)	Covariates Comments
Dieckmann & Pichlmeier (2002) Germany 1992–1996	353 259 Hospital	BMI ≥ 30 vs 20–24	7	1.49 (0.26–8.45)	Age
		Weight (kg) ≥ 100 vs 60–89	9	0.52 (0.12–2.33)	
Garner et al. (2003) USA 1994–1997	686 744 Population	BMI > 31 vs low	All: 61	1.29 (0.84–1.99)	BMI range for “low” not defined
			Non-seminoma: 11	3.66 (1.87–7.15)	
Richiardi et al. (2003) Sweden 1958–1996	371 1238 Nested case-control study	BMI ≥ 25 vs 20–24.9	23	0.71 (0.43–1.16)	Height, birth weight, gestational duration, maternal age, neonatal jaundice, neonatal medical conditions
Pan et al. (2004) Canada 1994–1997	685 5039 Population	BMI ≥ 30 vs < 25	685 total	1.16 (0.84–1.61)	5-yr age group, residence, education level, smoking, alcohol consumption, energy intake, vegetable intake, dietary fibre intake, physical activity
McGlynn et al. (2007) USA 2002–2005	767 928 Population	BMI ≥ 30 vs 18.5–24.9	46	1.06 (0.66–1.69)	Age, race, serum date, cryptorchidism, family history of testicular cancer Analyses by subtypes gave similar results
		Weight (kg) > 86.18 vs 72.59–79.38	209	1.13 (0.83–1.54)	
Dieckmann et al. (2009) Germany 1995–2005	8498 2070 Population	BMI > 30 vs 18.5–< 25	All ages: 928	<i>P</i> = 0.19	Age
		> 30 vs 18.5–< 25	Age 18–29 yr: 270	<i>P</i> < 0.00001	

**Table 2.2.15 Case-control studies of measures of body fatness and cancer of the testis**

Reference Study location Period	Total number of cases Total number of controls Source of controls	Exposure categories	Exposed cases	Relative risk (95% CI)	Covariates Comments
Lerro et al. (2010) Europe and North America Studies published 1989–2009	14 262 cases	BMI <25 25– < 30 > 30	NR	1.00 0.92 (0.86–0.98) 0.93 (0.75–1.15)	Meta-analysis of 1 cohort study and 10 case-control studies
Giannandrea et al. (2012) Italy NR	321 465 Hospital	BMI ≥ 27.4 vs < 23.15  Weight (kg) > 87 vs 73–80	26  26	0.42 (0.24–0.75)  0.27 (0.13–0.52)	Age Analysis by subtype gave significant inverse association, similar to overall

BMI, body mass index (in kg/m<sup>2</sup>); CI, confidence interval; NR, not reported; yr, year or years

## References

- Dieckmann K-P, Hartmann JT, Classen J, Diederichs M, Pichlmeier U (2009). Is increased body mass index associated with the incidence of testicular germ cell cancer? *J Cancer Res Clin Oncol.* 135(5):731–8. <http://dx.doi.org/10.1007/s00432-008-0504-1> PMID:19002497
- Dieckmann K-P, Pichlmeier U (2002). Is risk of testicular cancer related to body size? *Eur Urol.* 42(6):564–9. [http://dx.doi.org/10.1016/S0302-2838\(02\)00467-0](http://dx.doi.org/10.1016/S0302-2838(02)00467-0) PMID:12477651
- Garner MJ, Birkett NJ, Johnson KC, Shatenstein B, Ghadirian P, Krewski D; Canadian Cancer Registries Epidemiology Research Group (2003). Dietary risk factors for testicular carcinoma. *Int J Cancer.* 106(6):934–41. <http://dx.doi.org/10.1002/ijc.11327> PMID:12918073
- Giannandrea F, Paoli D, Lombardo F, Lenzi A, Gandini L (2012). Case-control study of anthropometric measures and testicular cancer risk. *Front Endocrinol (Lausanne).* 3:144. <http://dx.doi.org/10.3389/fendo.2012.00144> PMID:23189072
- Lerro CC, McGlynn KA, Cook MB (2010). A systematic review and meta-analysis of the relationship between body size and testicular cancer. *Br J Cancer.* 103(9):1467–74. <http://dx.doi.org/10.1038/sj.bjc.6605934> PMID:20978513
- McGlynn KA, Sakoda LC, Rubertone MV, Sesterhenn IA, Lyu C, Graubard BI, et al. (2007). Body size, dairy consumption, puberty, and risk of testicular germ cell tumors. *Am J Epidemiol.* 165(4):355–63. <http://dx.doi.org/10.1093/aje/kwk019> PMID:17110638
- Pan SY, Johnson KC, Ugnat AM, Wen SW, Mao Y; Canadian Cancer Registries Epidemiology Research Group (2004). Association of obesity and cancer risk in Canada. *Am J Epidemiol.* 159(3):259–68. <http://dx.doi.org/10.1093/aje/kwh041> PMID:14742286
- Richiardi L, Askling J, Granath F, Akre O (2003). Body size at birth and adulthood and the risk for germ-cell testicular cancer. *Cancer Epidemiol Biomarkers Prev.* 12(7):669–73. PMID:12869410