

Appendix 4. List of excluded articles

1. Did not report sensitivity and specificity (n=14)
2. Different target condition (n=4)
3. Use of a tool other than BMI to diagnose obesity (n=1)
4. Insufficient information for meta-analysis (n=5)

Anglim et al. (2015) – 2
Assyov et al. (2016) – 2
Aswathappa et al. (2013) – 2
Atef et al. (2015) – 1
Coutinho et al. (2014) – 1
Gonçalves et al. (2014) – 3
Hassan et al. (2015) – 1
Hatipoglu et al. (2010) – 4
Hingorjo et al. (2012) – 1
Joshi et al. (2016) – 1
Katz et al. (2014) – 4
Kim and Lee (2014) – 2
Lucas et al. (2016) – 1
Mazicioglu et al. (2010) – 1
Mondal et al. (2016) – 1
Ozkaya and Tunckale (2016) – 1
Papandreou et al. (2015) – 1
Papandreou et al. (2016) – 4
Pillai et al. (2012) – 1
Sarry El Din et al. (2013) – 4
Souza (2014) – 1
Souza et al. (2016) – 4
Ucheya et al. (2009) – 1
Yan et al. (2014) – 1

References

Anglim B, Higgins A, Daly N, Farren M, Turner MJ. 2015. Maternal Obesity and Neck Circumference. *Ir Med J.* 2015/07;108:179-180.

Assyov Y, Gateva A, Tsakova A, Kamenov Z. 2016. A comparison of the clinical usefulness of neck circumference and waist circumference in individuals with severe obesity. *Endocr Res.* Apr 6:1-9. Epub 2016/04/07.

Aswathappa J, Garg S, Kutty K, Shankar V. 2013. Neck circumference as an anthropometric measure of obesity in diabetics. *N Am J Med Sci.* Jan;5:28-31. Epub 2013/02/05.

Atef A, Ibrahim A, Hassan NE, Elmasry SA, Elashry GI. 2015. Neck circumference as a novel screening method for estimating fat distribution and metabolic complications in obese children. *Egyptian Pediatric Association Gazette.* 9//;63:91-97.

Coutinho CA, Longui CA, Monte O, Conde W, Kochi C. 2014. Measurement of neck circumference and its correlation with body composition in a sample of students in Sao Paulo, Brazil. *Horm Res Paediatr.* 82:179-186. Epub 2014/08/21.

Gonçalves VSS, de Faria ER, Franceschini SCC, Priore SE. 2014. Neck circumference as predictor of excess body fat and cardiovascular risk factors in adolescents. *Revista de Nutricao.* 27:161-171.

Hassan NE, Atef A, El-Masry SA, Ibrahim A, Abu Shady MM, Al-Tohamy M, Kamel IH, Elashry GIA. 2015. Neck circumference as a predictor of adiposity among healthy and obese children. *Macedonian Journal of Medical Sciences.* 3.

Hatipoglu N, Mazicioglu MM, Kurtoglu S, Kendirci M. 2010. Neck circumference: an additional tool of screening overweight and obesity in childhood. *Eur J Pediatr.* Jun;169:733-739. Epub 2009/11/26.

Hingorjo MR, Qureshi MA, Mehdi A. 2012. Neck circumference as a useful marker of obesity: a comparison with body mass index and waist circumference. *J Pak Med Assoc.* Jan;62:36-40. Epub 2012/02/23.

Joshi K, Munoz-Torres F, Vergara J, Palacios C, Perez CM. 2016. Neck Circumference May Be a Better Alternative to Standard Anthropometric Measures. *J Diabetes Res.*2016:6058916. Epub 2016/03/17.

Katz SL, Vaccani JP, Clarke J, Hoey L, Colley RC, Barrowman NJ. 2014. Creation of a reference dataset of neck sizes in children: standardizing a potential new tool for prediction of obesity-associated diseases? *BMC Pediatr.*14:159. Epub 2014/06/24.

Kim Y, Lee JM. 2014. Accuracy of Neck Circumference in Classifying Overweight and Obese US Children.2014:781841.

Lucas RE, Fonseca ALF, Dantas RO. 2016. Neck circumference can differentiate obese from nonobese individuals. *MedicalExpress (São Paulo, Online).* 2016/08;3:M160403-M160403.

Mazicioglu MM, Kurtoglu S, Ozturk A, Hatipoglu N, Cicek B, Ustunbas HB. 2010. Percentiles and mean values for neck circumference in Turkish children aged 6-18 years. *Acta Paediatr.* Dec;99:1847-1853. Epub 2010/08/05.

Mondal N, Sen J, Bose K, Timungpi R, Kathar M, Hanse S. 2016. Neck circumference as a screening measure of overweight/obesity among Indian adults. *Anthropological Review.*79:347-365.

Ozkaya I, Tunckale A. 2016. Neck Circumference Positively Related with Central Obesity and Overweight in Turkish University Students: A Preliminary Study. *Cent Eur J Public Health.* Jun;24:91-94. Epub 2016/04/28.

Papandreou D, Causapin M, Tul-Noor Z, Malindretos P. 2016. Relation of Neck Circumference with Total Body Fat and BMI. *Current Nutrition & Food Science.*12:121-124.

Papandreou D, Noo ZT, Rashed M, Al Jaber H. 2015. Association of neck circumference with obesity in female college students. *Macedonian Journal of Medical Sciences.*3.

Pillai C, Udhoji P, Rathod S, Pillai K. 2012. Comparison of body mass index, body fat percentage and neck circumference as tools for evaluation of obesity. *National Journal of Physiology, Pharmacy and Pharmacology.*2:167-171.

Sarry El Din A, Hassan N, El-Masry S, Al-Tohamy M. 2013. Neck circumference as a simple screening measure for identifying Egyptian overweight and obese adults. *Macedonian Journal of Medical Sciences.*6:232-237.

Souza MFC, Gurgel RQ, Barreto IDC, Shanmugam S. 2016. Neck circumference as screening measure for identifying adolescents with overweight and obesity. *J Hum Growth Dev.*26:260-266.

Souza WB. 2014. Relação entre o índice de adiposidade corporal, circunferência do pescoço e Índice de Massa Corporal em mulheres sedentárias. *RBONE - Revista Brasileira de Obesidade, Nutrição e Emagrecimento.*8.

Ucheya RE, Okonofua SE, Anyanwu LC, Igweh JC. 2009. Relationship between neck circumference, waist circumference, body mass index, arm circumference and waist hip ratio as predictors of cardiovascular risk factors. *Biosciences Biotechnology Research Asia.*6:87-100.

Yan Q, Sun D, Li X, Zheng Q, Li L, Gu C, Feng B. 2014. Neck circumference is a valuable tool for identifying metabolic syndrome and obesity in Chinese elder subjects: a community-based study. *Diabetes Metab Res Rev.* Jan;30:69-76. Epub 2013/09/03.