



Welcome to the latest issue of the weekly Obesity Knowledge Update from Public Health England. This bulletin highlights new research relating to obesity and its determinants.

PHE is not responsible for the content of articles published by external organisations.

If you do not wish to receive further Obesity Knowledge Updates, please [click here to unsubscribe](#). You will continue to receive other Obesity Intelligence emails (notification of new resources etc.).

- [UK and Ireland - 3](#)
- [International - 31](#)
- [Systematic reviews - 3](#)

UK and Ireland

[Unprecedentedly high rates of gestational diabetes in women with body mass index \$\geq 40\$ kg/m² at booking: A retrospective UK cohort study.](#) Cornish EF, Wisentaner A, Siassakos D. Eur J Obstet Gynecol Reprod Biol. 2020 Apr;247:267-268. doi: 10.1016/j.ejogrb.2020.02.033.

[Impact of a community-based pilot intervention to tackle childhood obesity: a 'whole-system approach' case study.](#) Gadsby EW, Hotham S, Eida T, Lawrence C, Merritt R. BMC Public Health. 2020 Nov 30;20(1):1818. doi: 10.1186/s12889-020-09694-2.

[\[back to top\]](#)

UK and Ireland: Research related to COVID-19

[Barriers and facilitators to changes in adolescent physical activity during COVID-19.](#) Ng K, Cooper J, McHale F, Clifford J, Woods C. BMJ Open Sport Exerc Med. 2020 Nov 5;6(1):e000919. doi: 10.1136/bmjsem-2020-000919.

[\[back to top\]](#)

International

[Being overweight in childhood, puberty, or early adulthood: Changing asthma risk in the next generation?](#) Johannessen A, Lønnebotn M, Calciano L, Benediktsdóttir B, Bertelsen RJ, Bråbäck L, Dharmage S, Franklin KA, Gislason T, Holm M, Janson C, Jarvis D, Jøgi R, Kim JL, Kirkeleit J, Lodge C, Malinowski A, Martinez-Moratalla J, Nilsen RM, Pereira-Vega A, Real FG, Schlünssen V, Accordini S, Svanes C. J Allergy Clin Immunol. 2020 Mar;145(3):791-799.e4. doi: 10.1016/j.jaci.2019.08.030.

[Understanding the Heterogeneity of Obesity and the Relationship to the Brain-Gut Axis.](#) Hung TKW, Dong TS, Chen Z, Elashoff D, Sinsheimer JS, Jacobs JP, Lagishetty V, Vora P, Stains J, Mayer EA, Gupta A. Nutrients. 2020 Nov 30;12(12):E3701. doi: 10.3390/nu12123701.

Delayed motor skills associated with pediatric obesity. Zacks B, Confroy K, Frino S, Skelton JA. *Obes Res Clin Pract.* 2020 Oct 22;S1871-403X(20)30598-6. doi: 10.1016/j.orcp.2020.10.003.

The impact of smoking and obesity on disability-free life expectancy in older Australians. Kingston A, Byles J, Kiely K, Anstey K, Jagger C. *J Gerontol A Biol Sci Med Sci.* 2020 Nov 29;glaa290. doi: 10.1093/gerona/glaa290.

Impact of an 8-Year Intensive Lifestyle Intervention on an Index of Multimorbidity. Espeland MA, Gaussoin SA, Bahnson J, Vaughan EM, Knowler WC, Simpson FR, Hazuda HP, Johnson KC, Munshi MN, Coday M, Pi-Sunyer X. *J Am Geriatr Soc.* 2020 Oct;68(10):2249-2256. doi: 10.1111/jgs.16672.

Modeling Obesity in Norway (The MOON Study): A Decision-Analytic Approach-Prevalence, Costs, and Years of Life Lost. Bjørnelv GMW, Halsteinli V, Kulseng BE, Sonntag D, Ødegaard RA. *Med Decis Making.* 2020 Nov 30;272989X20971589. doi: 10.1177/0272989X20971589.

Implementation of WHO Recommended Policies and Interventions on Healthy Diet in the Countries of the Eastern Mediterranean Region: From Policy to Action. Al-Jawaldeh A, Hammerich A, Doggui R, Engesveen K, Lang K, McColl K. *Nutrients.* 2020 Nov 30;12(12):E3700. doi: 10.3390/nu12123700.

Association between Health Indicators and Health-Related Quality of Life according to Physical Activity of Older Women. Lim HS, Yoo JJ. *Healthcare (Basel).* 2020 Nov 22;8(4):507. doi: 10.3390/healthcare8040507.

Patient-provided e-support in reduced intensity obesity treatment: The INSPIRE randomized controlled trial. Leahey TM, Huedo-Medina TB, Grenga A, Gay L, Fernandes D, Denmat Z, Doyle C, Areny-Joval R, Wing RR. *Health Psychol.* 2020 Dec;39(12):1037-1047. doi: 10.1037/hea0000996.

Influence of the urban context on the relationship between neighbourhood deprivation and obesity. Feuillet T, Valette JF, Charreire H, Kesse-Guyot E, Julia C, Vernez-Moudon A, Hercberg S, Touvier M, Oppert JM. *Soc Sci Med.* 2020 Nov 21;113537. doi: 10.1016/j.socscimed.2020.113537.

The Relationship between Obesity and Physical Activity of Children in the Spotlight of Their Parents' Excessive Body Weight. Sigmund E, Sigmundová D. *Int J Environ Res Public Health.* 2020 Nov 24;17(23):E8737. doi: 10.3390/ijerph17238737.

The impact of body mass index, central obesity and physical activity on lung function: results of the EpiHealth study. Svartengren M, Cai GH, Malinovsky A, Theorell-Haglöw J, Janson C, Elmståhl S, Lind L, Lampa E, Lindberg E. *ERJ Open Res.* 2020 Nov 2;6(4):00214-2020. doi: 10.1183/23120541.00214-2020.

Eating Behavior, Physical Activity and Exercise Training: A Randomized Controlled Trial in Young Healthy Adults. Martinez-Avila WD, Sanchez-Delgado G, Acosta FM, Jurado-Fasoli L, Oustric P, Labayen I, Blundell JE, Ruiz JR. *Nutrients.* 2020 Nov 29;12(12):E3685. doi: 10.3390/nu12123685.

The Role of Children's Dietary Pattern and Physical Activity in the Association Between Breastfeeding and BMI at Age 5: The GECKO Drenthe Cohort. Vinke PC, Tigelaar C, Küpers LK, Corpeleijn E. *Matern Child Health J.* 2020 Nov 30. doi: 10.1007/s10995-020-03063-6.

Perceived Stress Can Mediate the Associations between a Lifestyle Intervention and Fat and Fast Food Intakes. Chang MW, Brown R, Wegener DT. *Nutrients*. 2020 Nov 24;12(12):E3606. doi: 10.3390/nu12123606.

Cooking as a Health Behavior: Examining the Role of Cooking Classes in a Weight Loss Intervention. Alpaugh M, Pope L, Trubek A, Skelly J, Harvey J. *Nutrients*. 2020 Nov 28;12(12):E3669. doi: 10.3390/nu12123669.

The differential relationship of an afterschool physical activity intervention on brain function and cognition in children with obesity and their normal weight peers. Logan NE, Raine LB, Drollette ES, Castelli DM, Khan NA, Kramer AF, Hillman CH. *Pediatr Obes*. 2020 Aug 16:e12708. doi: 10.1111/ijpo.12708.

Trajectory of BMI from Ages 2 to 7 Years and Age at Peak Height Velocity in Boys and Girls. Chen LK, Wang G, Bennett WL, Ji Y, Pearson C, Radovick S, Wang X. *J Pediatr*. 2020 Nov 27:S0022-3476(20)31459-1. doi: 10.1016/j.jpeds.2020.11.047.

Adult attachment styles and mothers' life satisfaction in relation to eating behaviors in the families with overweight and obese children. Pasztak-Opilka A, de Jonge R, Zachurzok A, Górnik-Durose ME. *PLoS One*. 2020 Dec 3;15(12):e0243448. doi: 10.1371/journal.pone.0243448.

Long-Term Follow-Up of a Randomized Controlled Trial to Reduce Excessive Weight Gain in Infancy: Protocol for the Prevention of Overweight in Infancy (POI) Follow-Up Study at 11 Years. Adebowale TO, Taylor BJ, Gray AR, Galland BC, Heath AM, Fortune S, Meredith-Jones KA, Sullivan T, McIntosh D, Brosnan B, Taylor RW. *JMIR Res Protoc*. 2020 Nov 30;9(11):e24968. doi: 10.2196/24968.

Trends in Overweight and Obesity Self-awareness Among Adults With Overweight or Obesity in the United States, 1999 to 2016. Kwak YE, McMillan R, McDonald EK 4th. *Ann Intern Med*. 2020 Dec 1. doi: 10.7326/M20-3882.

Separating the genetics of childhood and adult obesity: a validation study of genetic scores for body mass index in adolescence and adulthood in the HUNT Study. Brandkvist M, Bjørngaard JH, Ødegård RA, Åsvold BO, Smith GD, Brumpton B, Hveem K, Richardson TG, Vie GÅ. *Hum Mol Genet*. 2020 Dec 4:ddaa256. doi: 10.1093/hmg/ddaa256.

Impacts of Dietary Macronutrient Pattern on Adolescent Body Composition and Metabolic Risk: Current and Future Health Status-A Narrative Review. Kim OY, Kim EM, Chung S. *Nutrients*. 2020 Dec 2;12(12):E3722. doi: 10.3390/nu12123722.

Contextual Complexities in Implementing a Family-Based Childhood Obesity Intervention: The Perspectives of Enrolled Children and Their Parents. Hoeeg D, Christensen U, Lundby-Christensen L, Grabowski D. *Children (Basel)*. 2020 Dec 2;7(12):E267. doi: 10.3390/children7120267.

The utility of household Grocery Purchase Quality Index scores as an individual diet quality metric. Parker HW, de Araujo C, Thorndike AN, Vadiveloo M. *Br J Nutr*. 2020 Dec 3:1-28. doi: 10.1017/S0007114520004833.

Longitudinal Changes in Food Addiction Symptoms and Body Weight among Adults in a Behavioral Weight-Loss Program. Gordon EL, Merlo LJ, Durning PE, Perri MG. *Nutrients*. 2020 Nov 29;12(12):E3687. doi: 10.3390/nu12123687.

The Efficacy of School-Based Interventions in Preventing Adolescent Obesity in Australia. Buru K, Emeto TI, Malau-Aduli AEO, Malau-Aduli BS. *Healthcare (Basel)*. 2020 Nov 25;8(4):514. doi: 10.3390/healthcare8040514.

[A health inequality impact assessment from reduction in overweight and obesity.](#) Bender AM, Sørensen J, Diderichsen F, Brønnum-Hansen H. BMC Public Health. 2020 Nov 30;20(1):1823. doi: 10.1186/s12889-020-09831-x.

[Effects of High and Low Protein Diets on Inflammatory Profiles in People with Morbid Obesity: A 3-Week Intervention Study.](#) Koelman L, Markova M, Seebeck N, Hornemann S, Rosenthal A, Lange V, Pivovarova-Ramich O, Aleksandrova K. Nutrients. 2020 Nov 26;12(12):E3636. doi: 10.3390/nu12123636.

[\[back to top\]](#)

International: Research related to COVID-19

[Pathways to Severe COVID-19 for People with Obesity.](#) O'Rourke RW, Lumeng CN. Obesity (Silver Spring). 2020 Dec 3. doi: 10.1002/oby.23099.

[Self-Reported Impact of the COVID-19 Pandemic on Nutrition and Physical Activity Behaviour in Dutch Older Adults Living Independently.](#) Visser M, Schaap LA, Wijnhoven HAH. Nutrients. 2020 Nov 30;12(12):E3708. doi: 10.3390/nu12123708.

[\[back to top\]](#)

Systematic reviews

[Use of Technology-Based Interventions in the Treatment of Patients with Overweight and Obesity: A Systematic Review.](#) Rumbo-Rodríguez L, Sánchez-SanSegundo M, Ruiz-Robledillo N, Albaladejo-Blázquez N, Ferrer-Cascales R, Zaragoza-Martí A. Nutrients. 2020 Nov 26;12(12):E3634. doi: 10.3390/nu12123634.

[\[back to top\]](#)

Systematic reviews: Research related to COVID-19

[Emotion perception and theory of mind in obesity: a systematic review on the impact of social cognitive deficits on dysfunctional eating behaviors.](#) Tonelli H, de Siqueira Rotenberg L. Surg Obes Relat Dis. 2020 Oct 20:S1550-7289(20)30606-7. doi: 10.1016/j.soard.2020.10.016.

[Obesity is associated with increased severity of disease in COVID-19 pneumonia: a systematic review and meta-analysis.](#) Chu Y, Yang J, Shi J, Zhang P, Wang X. Eur J Med Res. 2020 Dec 2;25(1):64. doi: 10.1186/s40001-020-00464-9.

[\[back to top\]](#)