

## DIRETRIZES E REFERÊNCIAS BIBLIOGRÁFICAS EM MEDICINA DA OBESIDADE

### OBESITY MEDICINE GUIDELINES

aace guidelines: timothy garvey, md, face; jeffrey i. mechanick, md, facp, face, facn, ecnu; elise m. brett, md, face, cnsc, ecnu; alan j. garber, md, phd, face; daniel l. hurley, md, face; ania m. jastreboff, md, phd; karl nadolsky, do; rachel pessah-pollack, md; raymond plodkowski, md; and reviewers of the aace/ace obesity clinical practice guidelines

<https://pro.aace.com/files/obesity/final-appendix.pdf>

adult oma obesity guidelines:

obesity algorithm®

bays he, mccarthy w, christensen s, tondt j, karjoo s, davisson l, ng j, golden a, burridge k, conroy r, wells s, umashanker d, afreen s, dejesus r, salter d, shah n, richardson l. obesity algorithm ebook, presented by the obesity medicine association. www.obesityalgorithm.org. 2020. <https://obesitymedicine.org/obesity-algorithm/>

exercise – acsm guidelines

[https://www.abom.org/wp-content/uploads/2018/12/quantity\\_and\\_quality\\_of\\_exercise\\_for\\_developing.26-002.pdf](https://www.abom.org/wp-content/uploads/2018/12/quantity_and_quality_of_exercise_for_developing.26-002.pdf)

obesity management – acc/aha/tos guidelines:michael d. jensen, donna h. ryan, caroline m. apovian, jamy d. ard, anthony g. comuzzie, karen a. donato, frank b. hu, van s. hubbard, john m. jakicic, robert f. kushner, catherine m. loria, barbara e. millen, cathy a. nonas, f. xavier pi-sunyer, june stevens, victor j. stevens, thomas a. wadden, bruce m. wolfe, susan z. yanovski

<http://circ.ahajournals.org/content/early/2013/11/11/01.cir.0000437739.71477.ee>

pediatric obesity—assessment, treatment, and prevention: an endocrine society clinical practice guideline: dennis m. styne, silva a. arslanian, ellen l. connor, ismaa sadaf farooqi, m. hassan murad, janet h. silverstein, jack a. yanovski. *j clin endocrinol metab* (2017) 102 (3): 709-757.

<https://academic.oup.com/jcem/article-lookup/doi/10.1210/jc.2016-2573>

pediatric oma guidelines:

pediatric obesity algorithm®

cuda s, censani m, joseph m, browne n, o'hara v. pediatric obesity algorithm, presented by the obesity medicine association. 2018-2020. www.pediatricobesityalgorithm.org.

pharmacotherapy – endocrine society pharmacologic management of obesity guidelines: caroline m. apovian louis j. aronne daniel h. bessesen marie e. mcdonnell m. hassan murad uberto pagotto donna h. ryan christopher d. still

<https://www.abom.org/wp-content/uploads/2018/08/pharmacological-management-of-obesity-an-endocrine-society-guideline.pdf>

surgery – aace/tos/asmbms guidelines 2013: jeffrey i. mechanick, m.d., adrienne youdim, m.d., daniel b. jones, m.d., m.s.,w., timothy garvey, m.d., daniel l. hurley, m.d., m. molly mcMahon, m.d., leslie j. heinberg, ph.d., robert kushner, m.d., ted d. adams, ph.d., m.p.h., scott shikora, m.d., john b. dixon, m.b.b.s., ph.d., stacy brethauer, m.d.

[https://asmbms.org/wp/uploads/2014/05/aace\\_tos\\_asmbms\\_clinical\\_practice\\_guidelines\\_3.2013.pdf](https://asmbms.org/wp/uploads/2014/05/aace_tos_asmbms_clinical_practice_guidelines_3.2013.pdf)

the uspstf pediatric guidelines (june 2017)

<https://www.uspreventiveservicestaskforce.org/page/document/recommendationstatementfinal/obesity-in-children-and-adolescents-screening1>

### reference handbooks and textbooks

- primary care: evaluation and management of obesity, 1st edition (2022) – edited by robert kushner, daniel besesen, adam gilden
- obesity prevention and treatment: a practical guide, 1st edition (2022) – edited by james rippe and john foreyt
- the asmbms textbook of bariatric surgery, 2nd edition (2020) – edited by ninh t. nguyen, stacy a. brethauer, john m. morton, jaime ponce, raul j. rosenthal
- handbook of obesity treatment, 2nd edition (2018) – edited by thomas wadden and george bray
- the sages manual of bariatric surgery, 2nd edition (2018) – edited by kevin reavis, allison barrett, matthew kroh
- pediatric obesity: etiology, pathogenesis, and treatment, 2nd edition (2018) – edited by michael freemark
- bariatric surgery complications: the medical practitioner's essential guide, 1st edition (2017) – edited by robin blackstone
- bariatric surgery complications and emergencies, 1st edition (2016) – edited by daniel herron
- handbook of obesity, 4th edition (2014) – volumes 1 and 2 – edited by george bray and claude bouchard
- pediatric obesity: prevention, intervention and treatment strategies for primary care, 2nd edition (2014) – edited by sandra hassink
- managing obesity: a clinical guide, 2nd edition (2009) – edited by cathy nonas and gary foster

aace guidelines: timothy garvey, md, face; jeffrey i. mechanick, md, facp, face, facn, ecnu; elise m. brett, md, face, cnsc, ecnu; alan j. garber, md, phd, face; daniel l. hurley, md, face; ania m. jastreboff, md, phd; karl nadolsky, do; rachel pessah-pollack, md; raymond plodkowski, md; and reviewers of the aace/ace obesity clinical practice guidelines

<https://pro.aace.com/files/obesity/final-appendix.pdf>

adult oma obesity guidelines:

obesity algorithm®

bays he, mccarthy w, christensen s, tondt j, karjoo s, davisson l, ng j, golden a, burridge k, conroy r, wells s, umashanker d, afreen s, dejesus r, salter d, shah n, richardson l. obesity algorithm ebook, presented by the obesity medicine association. [www.obesityalgorithm.org](http://www.obesityalgorithm.org). 2020. <https://obesitymedicine.org/obesity-algorithm/>

exercise – acsm guidelines

[https://www.abom.org/wp-content/uploads/2018/12/quantity\\_and\\_quality\\_of\\_exercise\\_for\\_developing.26-002.pdf](https://www.abom.org/wp-content/uploads/2018/12/quantity_and_quality_of_exercise_for_developing.26-002.pdf)

obesity management – acc/aha/tos guidelines: michael d. jensen, donna h. ryan, caroline m. apovian, jamy d. ard, anthony g. comuzzie, karen a. donato, frank b. hu, van s. hubbard, john m. jakicic, robert f. kushner, catherine m. loria, barbara e. millen, cathy a. nonas, f. xavier pi-sunyer, june stevens, victor j. stevens, thomas a. wadden, bruce m. wolfe, susan z. yanovski

<http://circ.ahajournals.org/content/early/2013/11/11/01.cir.0000437739.71477.ee>

pediatric obesity—assessment, treatment, and prevention: an endocrine society clinical practice guideline: dennis m. styne, silva a. arslanian, ellen l. connor, ismaa sadaf farooqi, m. hassan murad, janet h. silverstein, jack a. yanovski. *j clin endocrinol metab* (2017) 102 (3): 709-757.

<https://academic.oup.com/jcem/article-lookup/doi/10.1210/jc.2016-2573>

pediatric oma guidelines:

pediatric obesity algorithm®

cuda s, censani m, joseph m, browne n, o'hara v. pediatric obesity algorithm, presented by the obesity medicine association. 2018-2020.

[www.pediatricobesityalgorithm.org](http://www.pediatricobesityalgorithm.org).

pharmacotherapy – endocrine society pharmacologic management of obesity guidelines: caroline m. apovian louis j. aronne daniel h. bessesen marie e. mcdonnell m. hassan murad uberto pagotto donna h. ryan christopher d. still

<https://www.abom.org/wp-content/uploads/2018/08/pharmacological-management-of-obesity-an-endocrine-society-guideline.pdf>

surgery – aace/tos/asmbms guidelines 2013: jeffrey i. mechanick, m.d., adrienne youdim, m.d., daniel b. jones, m.d., m.s.,w., timothy garvey, m.d., daniel l. hurley, m.d., m. molly mcMahon, m.d., leslie j. heinberg, ph.d., robert kushner, m.d., ted d. adams, ph.d., m.p.h., scott shikora, m.d., john b. dixon, m.b.b.s., ph.d., stacy brethauer, m.d.

[https://asmbms.org/wp/uploads/2014/05/aace\\_tos\\_asmbms\\_clinical\\_practice\\_guidlines\\_3.2013.pdf](https://asmbms.org/wp/uploads/2014/05/aace_tos_asmbms_clinical_practice_guidlines_3.2013.pdf)

the uspstf pediatric guidelines (june 2017)

<https://www.uspreventiveservicestaskforce.org/page/document/recommendationstatementfinal/obesity-in-children-and-adolescents-screening1>

approach to the patient with obesity

- bray, ga. 2003. diagnosis and management of obesity and the metabolic syndrome, 3rd edition. handbooks in health care.
- daniels sr, hassink sg; committee on nutrition.the role of the pediatrician in primary prevention of obesity. pediatrics. 2015 jul;136(1):e275-92. doi: 10.1542/peds.2015-1558. epub 2015 jun 29.
- wadden, ta, stunkard, aj. 2004. handbook of obesity treatment. new york, ny. guilford press.

bariatric surgery

- arroyo k, kini su, harvey je, herron dm. surgical therapy for diabetes. mt sinai j med. 2010;77(5):418-30.
- buchwald h, avidor y, braunwald e, et al. bariatric surgery: a systematic review and meta-analysis. jama. 2004;292(14):1724-37.
- harvey ej, arroyo k, korner j, inabnet wb. hormone changes affecting energy homeostasis after metabolic surgery. mt sinai j med. 2010;77(5):446-65.
- kim t. nguyen and judith korner. the sum of many parts: potential mechanisms for improvement in glucose homeostasis after bariatric surgery. curr diab rep. 2014 may; 14(5): 481.
- schauer pr. et al. bariatric surgery versus intensive medical therapy for diabetes — 5-year outcomes. n engl j med 2017;376:641-51.

- sogg s, lauretti j, west-smith l. recommendations for the presurgical psychosocial evaluation of bariatric surgery patients. *surg obes relat dis*. 2016;12:731-49.
- stefater m. et al. all bariatric surgeries are not created equal: insights from mechanistic comparisons. *endocrine reviews*, august 2012, 33(4) 595-622.
- strohmayer e, via ma, yanagisawa r. metabolic management following bariatric surgery. *mt sinai j med*. 2010;77(5):431-45.

#### behavioral change

- dietary interventions, physical activity, and behavioral approaches to the treatment of obesity diabetes prevention program (dpp) research group. the diabetes prevention program (dpp): description of lifestyle intervention. *diabetes care*. 2002;25:2165–2171.
- the look ahead research group. the look ahead study: a description of the lifestyle intervention and the evidence supporting it. *obesity*. 2006;14:737–752.
- prochaska jo, et al. stages of change and decisional balance for 12 problem behaviors. *health psychol* 1994; 13(1):3946.
- radesky j, christakis d, hill d, ameenuddin n, reid chassiakos yl, cross c, hutchinson j, levine a, boyd r, mendelson r, moreno m, swanson ws. media and young minds. *pediatrics*. 2016 nov;138(5).
- rollnick s, butler cc, kinnersley p, gregory j, mash b. motivational interviewing. *bmj* 2010;340:12421245

#### benefits of weight loss

- francesco rubino, david m. nathan, robert h. eckel, philip r. schauer, k. george m.m. alberti et al. metabolic surgery in the treatment algorithm for type 2 diabetes: a joint statement by international diabetes organizations. *diabetes care* 2016 jun; 39(6): 861-877
- magkos f, fraterrigo g, yoshino j, et al. effects of moderate and subsequent progressive weight loss on metabolic function and adipose tissue biology in humans with obesity. *cell metab*. 2016;s1550-4131(16)30053-5.
- philip r. schauer, m.d., deepak l. bhatt, m.d., m.p.h., john p. kirwan, ph.d., kathy wolski, m.p.h. bariatric surgery versus intensive medical therapy for diabetes — 5-year outcomes. *n engl j med* 2017; 376:641-651 february 16, 2017
- schmidt jb. et al. effects of rygb on energy expenditure, appetite and glycaemic control: a randomized controlled clinical trial. *international journal of obesity* (2016) 40, 281–290
- wing rr, lang w, wadden ta, et al. benefits of modest weight loss in improving cardiovascular risk factors in overweight and obese individuals with type 2 diabetes. *diabetes care*. 2011;34(7):1481-6.

#### endoscopic procedures

- surgical clinics of north america volume 96, issue 4, pages 655-900 (august 2016).

## epidemiology

- ogden cl, carroll md, fryar cd, flegal km. prevalence of obesity among adults and youth: united states, 2011-2014. nchs data brief. 2015;(219):1-8.
- cdc overweight and obesity facts: <https://www.cdc.gov/obesity/data/adult.html>

## nutrition

- christopher d. gardner, phd; alexandre kiazand, md; sofiya alhassan, phd; et al. comparison of the atkins, zone, ornish, and learn diets for change in weight and related risk factors among overweight premenopausal women. jama. 2007;297(9):969-977
- iris shai, r.d., ph.d., dan schwarzfuchs, m.d., yaakov henkin, m.d., danit r. shahar, r.d., ph.d., shula witkow, r.d, et al. weight loss with a low-carbohydrate, mediterranean, or low-fat diet. n engl j med 2008; 359:229-241 july 17, 2008.
- ramón estruch, m.d., ph.d., emilio ros, m.d., ph.d., jordi salas-salvadó, m.d., ph.d., maria-isabel covas, d.pharm., ph.d., dolores corella, d.pharm., ph.d., fernando arós, m.d., ph.d., enrique gómez-gracia, m.d et al. primary prevention of cardiovascular disease with a mediterranean diet. n engl j med 2013; 368:1279-1290 april 4, 2013.

## obesity-related comorbidities

- kramer ck, zinman b, retnakaran r. are metabolically healthy overweight and obesity benign conditions?: a systematic review and meta-analysis. ann intern med. 2013;159(11):758-69.
- nguyen nt, magno cp, lane kt, hinojosa mw, lane js. association of hypertension, diabetes, dyslipidemia, and metabolic syndrome with obesity: findings from the national health and nutrition examination survey, 1999 to 2004. j am coll surg. 2008;207(6):928-34.

## pathophysiology

- fothergill e, guo j, howard l, et al. persistent metabolic adaptation 6 years after “the biggest loser” competition. obesity (silver spring). 2016;24(8):1612-9.
- sumithran p, prendergast la, delbridge e, et al. long-term persistence of hormonal adaptations to weight loss. n engl j med. 2011;365(17):1597-604.

## pharmacologic treatment of obesity

- apovian cm, aronne lj, bessesen dh, et al. pharmacological management of obesity: an endocrine society clinical practice guideline. j clin endocrinol metab. 2015;100(2):342-62.

- igel li, kumar rb, saunders kh, aronne lj. practical use of pharmacotherapy for obesity. gastroenterology. 2017; s0016-5085(17)30142-7.
- apovian, c, aronne l, powell, a, clinical management of obesity. professional communications, inc.; 1st edition (june 1, 2015)
- blackstone, rp. 2017. bariatric surgery complications: the medical practitioner's essential guide 1st ed. springer.
- bray, g. & bouchard, c. handbook of obesity, fourth edition, two volume set: handbook of obesity-volume 2: clinical applications, fourth edition, 2014. crc press
- herron, dm. 2016. bariatric surgery complications and emergencies 1st ed. springer.
- kushner r, lawrence v, kumar s. practical manual of clinical obesity, 2013. wiley-blackwell.
- mahan, k.l. & escott-stump, s.e., krause's food and the nutrition care process, 13th edition, 2011. saunders.
- nguyen, nt, blackstone, rp. 2015. asmbs textbook of bariatric surgery, volumes 1 and 2. springer.
- shils, m.e., modern nutrition in health and disease, 11th edition, 2012.lippincott, williams &wilkins.
- steelman, g.m. & westman, e.c., obesity: evaluation and treatment essentials, second edition, 2016. crc press.
- youdim, adrienne et al. the clinicians guide to the treatment of obesity, 2015. springer.

referências: obesity algorithm®. © 2019 obesity medicine association;

1. clinical practice guidelines we can trust 2011  
<https://www.ncbi.nlm.nih.gov/pubmed/24983061>

chronic disease of obesity

2. bray ga, kim kk, wilding jph, et al.: obesity: a chronic relapsing progressive disease process. a position statement of the world obesity federation. obes rev 2017 18:715-723. <https://www.ncbi.nlm.nih.gov/pubmed/28489290>

3. jastreboff am, kotz cm, kahan s, et al.: obesity as a disease: the obesity society 2018 position statement. obesity (silver spring) 2019 27:7-9.  
<https://www.ncbi.nlm.nih.gov/pubmed/30569641>

4. bays h: adiposopathy, "sick fat," ockham's razor, and resolution of the obesity paradox. curr atheroscler rep 2014 16:409.  
<https://www.ncbi.nlm.nih.gov/pubmed/24659222>

5. hales cm, carroll md, fryar cd, et al.: prevalence of obesity among adults and youth: united states, 2015-2016. nchs data brief 2017 1-8.  
<https://www.ncbi.nlm.nih.gov/pubmed/29155689>

6. fryar cd, kruszon-moran d, gu q, et al.: u.s. department of health and human services centers for disease control and prevention national center for health statistics mean

body weight, height, waist circumference, and body mass index among adults: united states, 1999–2000 through 2015–2016. national health statistics reports 2018 number 122:1 - 16.

7. puhl r, peterson jl, luedicke j: motivating or stigmatizing? public perceptions of weight-related language used by health providers. *int j obes (lond)* 2013 37:612-619. <https://www.ncbi.nlm.nih.gov/pubmed/22777543>

8. ravussin e, ryan d: response to “the need for people-first language in our obesity journal”. *obesity (silver spring)* 2015 23:918. <https://www.ncbi.nlm.nih.gov/pubmed/25919920>

9. national institute of diabetes and digestive and kidney diseases. health information: talking with patients about weight loss. <https://www.niddk.nih.gov/health-information/health-topics/weight-control/medical/pages/medical-care-for-patients-with-obesity.aspx> (accessed august 20, 2016).

10. american society of metabolic and bariatric surgeons standards manual version 2.0. resources for optimal care of the metabolic and bariatric surgery patient 2016 <https://www.facs.org/~media/files/quality%20programs/bariatric/mbsaqip%20standardsmanual.ashx>

(accessed september 10, 2016).

11. kushner rf, kahan s: introduction: the state of obesity in 2017. *med clin north am* 2018 102:1-11.

<https://www.ncbi.nlm.nih.gov/pubmed/29156178>

12. bays h, scinta w: adiposopathy and epigenetics: an introduction to obesity as a transgenerational disease. *curr med res opin* 2015 31:2059-2069. <https://www.ncbi.nlm.nih.gov/pubmed/26331354>

genetics

13. chung wk: an overview of monogenic and syndromic obesities in humans. *pediatr blood cancer* 2012 58:122-128. <https://www.ncbi.nlm.nih.gov/pubmed/21994130>

14. herbst kl: rare adipose disorders (rads) masquerading as obesity. *acta pharmacol sin* 2012 33:155-172. <https://www.ncbi.nlm.nih.gov/pubmed/22301856>

15. national organization for rare disorders (nord). familial partial lipodystrophy <https://rarediseases.org/for-patients-andfamilies/information-resources/rare-disease-information/> accessed december 3, 2017.

16. melvin a, adams c, flanagan c, et al.: roux-en-y gastric bypass surgery in the management of familial partial lipodystrophy type 1. *j clin endocrinol metab* 2017 102:3616-3620. <https://www.ncbi.nlm.nih.gov/pubmed/28973478>

17. metreleptin (myalept®) prescribing information [http://www.myaleptpro.com/sites/default/files/myalept\\_pi\\_sept2015\\_final.pdf](http://www.myaleptpro.com/sites/default/files/myalept_pi_sept2015_final.pdf) (accessed november 26, 2018).

18. youngson na, morris mj: what obesity research tells us about epigenetic mechanisms. *philos trans r soc lond b biol sci* 2013 368:20110337. <https://www.ncbi.nlm.nih.gov/pubmed/23166398>
19. curley jp, mashoodh r, champagne fa: epigenetics and the origins of paternal effects. *horm behav* 2011 59:306-314. <https://www.ncbi.nlm.nih.gov/pubmed/20620140>
20. bays he: "sick fat," metabolic disease, and atherosclerosis. *am j med* 2009 122:s26-37.

<https://www.ncbi.nlm.nih.gov/pubmed/19110085>

21. bays he: adiposopathy is "sick fat" a cardiovascular disease? *j am coll cardiol* 2011 57:2461-2473.

<https://www.ncbi.nlm.nih.gov/pubmed/21679848>

22. bays he: adiposopathy, diabetes mellitus, and primary prevention of atherosclerotic coronary artery disease: treating "sick fat" through improving fat function with antidiabetes therapies. *am j cardiol* 2012 110:4b-12b. <https://www.ncbi.nlm.nih.gov/pubmed/23062567>

additional references used in this section: [12]

obesity classification

23. de lorenzo a, soldati l, sarlo f, et al.: new obesity classification criteria as a tool for bariatric surgery indication. *world j gastroenterol* 2016 22:681-703. <https://www.ncbi.nlm.nih.gov/pubmed/26811617>
24. rahman m, berenson ab: accuracy of current body mass index obesity classification for white, black, and hispanic reproductive-age women. *obstet gynecol* 2010 115:982-988. <https://www.ncbi.nlm.nih.gov/pubmed/20410772>
25. misra a, shrivastava u: obesity and dyslipidemia in south asians. *nutrients* 2013 5:2708-2733. <https://www.ncbi.nlm.nih.gov/pubmed/23863826>
26. banack hr, wactawski-wende j, hovey km, et al.: is bmi a valid measure of obesity in postmenopausal women? *menopause* 2017 <https://www.ncbi.nlm.nih.gov/pubmed/29135897>
27. hsu wc, araneta mr, kanaya am, et al.: bmi cut points to identify at-risk asian americans for type 2 diabetes screening. *diabetes care* 2015 38:150-158. <https://www.ncbi.nlm.nih.gov/pubmed/25538311>
28. american council on exercise: what are the guidelines for percentage of body fat loss? <http://www.acefitness.org/acefit/healthy-living/article/60/112/what-are-the-guidelines-for-percentage-of-body-fat> (accessed august 20, 2016). 2009
29. calculator.net army fat calculator <https://www.calculator.net/army-body-fat-calculator.html> (accessed november 26, 2018).

30. Grundy SM, Stone NJ, Bailey AL, et al.: 2018  
AHA/ACC/AACVPR/AAPA/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA guideline on the management of blood cholesterol: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *J Am Coll Cardiol* 2018 <https://www.ncbi.nlm.nih.gov/pubmed/30423393>
31. Bays H: Central obesity as a clinical marker of adiposopathy; increased visceral adiposity as a surrogate marker for global fat dysfunction. *Curr Opin Endocrinol Diabetes Obes* 2014 21:345-351. <https://www.ncbi.nlm.nih.gov/pubmed/25106000>
32. Carroll JF, Chiapa AL, Rodriguez M, et al.: Visceral fat, waist circumference, and BMI: impact of race/ethnicity. *Obesity (Silver Spring)* 2008 16:600-607. <https://www.ncbi.nlm.nih.gov/pubmed/18239557>
33. Wang Z, Ma J, Si D: Optimal cut-off values and population means of waist circumference in different populations. *Nutr Res Rev* 2010 23:191-199. <https://www.ncbi.nlm.nih.gov/pubmed/20642876>
34. ICD10Data.com. Overweight and obesity. <http://www.icd10data.com/icd10cm/codes/e00-e89/e65-e68/e66-/e66> (accessed August 20, 2016).
35. Sun Q, Van Dam RM, Spiegelman D, et al.: Comparison of dual-energy x-ray absorptiometric and anthropometric measures of adiposity in relation to adiposity-related biologic factors. *Am J Epidemiol* 2010 172:1442-1454. <https://www.ncbi.nlm.nih.gov/pubmed/20952596>
36. Li C, Ford ES, Zhao G, et al.: Estimates of body composition with dual-energy x-ray absorptiometry in adults. *Am J Clin Nutr* 2009 90:1457-1465. <https://www.ncbi.nlm.nih.gov/pubmed/19812179>
37. Imboden MT, Welch WA, Swartz AM, et al.: Reference standards for body fat measures using GE dual energy x-ray absorptiometry in Caucasian adults. *PLoS One* 2017 12:e0175110. <https://www.ncbi.nlm.nih.gov/pubmed/28388669>
38. Stults-Kolehmainen MA, Stanforth PR, Bartholomew JB, et al.: DXA estimates of fat in abdominal, trunk and hip regions varies by ethnicity in men. *Nutr Diabetes* 2013 3:e64. <https://www.ncbi.nlm.nih.gov/pubmed/23507968>
39. Grundy SM, Neeland IJ, Turer AT, et al.: Waist circumference as measure of abdominal fat compartments. *J Obes* 2013 2013:454285.
40. Camhi SM, Bray GA, Bouchard C, et al.: The relationship of waist circumference and BMI to visceral, subcutaneous, and total body fat: sex and race differences. *Obesity (Silver Spring)* 2011 19:402-408.

#### fat mass disease

41. Kushner RF, Blatner DJ: Risk assessment of the overweight and obese patient. *J Am Diet Assoc* 2005 105:s53-62. <https://www.ncbi.nlm.nih.gov/pubmed/15867897>
42. Kushner RF, Roth JL: Assessment of the obese patient. *Endocrinol Metab Clin North Am* 2003 32:915-933.

<https://www.ncbi.nlm.nih.gov/pubmed/14711068>

43. bays he: current and investigational antiobesity agents and obesity therapeutic treatment targets. *obes res* 2004 12:1197-1211.  
<https://www.ncbi.nlm.nih.gov/pubmed/15340100>

44. pearl rl, wadden ta, hopkins cm, et al.: association between weight bias internalization and metabolic syndrome among treatment-seeking individuals with obesity. *obesity (silver spring)* 2017 25:317-322.  
<https://www.ncbi.nlm.nih.gov/pubmed/28124502>

45. obesity action coalition. weight bias guides. <https://www.obesityaction.org/action-through-advocacy/weight-bias/weight-biasguides/> (accessed january 5, 2019).

46. phelan sm, burgess dj, yeazel mw, et al.: impact of weight bias and stigma on quality of care and outcomes for patients with obesity. *obes rev* 2015 16:319-326.

47. shamsuzzaman as, gersh bj, somers vk: obstructive sleep apnea: implications for cardiac and vascular disease. *jama* 2003 290:1906-1914.  
<https://www.ncbi.nlm.nih.gov/pubmed/14532320>

48. gileles-hillel a, kheirandish-gozaal i, gozaal d: biological plausibility linking sleep apnoea and metabolic dysfunction. *nat rev endocrinol* 2016 12:290-298.  
<https://www.ncbi.nlm.nih.gov/pubmed/26939978>

49. nagappa m, liao p, wong j, et al.: validation of the stop-bang questionnaire as a screening tool for obstructive sleep apnea among different populations: a systematic review and meta-analysis. *plos one* 2015 10:e0143697.  
<https://www.ncbi.nlm.nih.gov/pubmed/26658438>

50. weaver te, calik mw, farabi ss, et al.: innovative treatments for adults with obstructive sleep apnea. *nat sci sleep* 2014 6:137-147.  
<https://www.ncbi.nlm.nih.gov/pubmed/25429246>

adiposopathy (sick fat disease)

51. bays he, jones ph, jacobson ta, et al.: lipids and bariatric procedures part 1 of 2: scientific statement from the national lipid association, american society for metabolic and bariatric surgery, and obesity medicine association: full report. *j clin lipidol* 2016 10:33-57. <https://www.ncbi.nlm.nih.gov/pubmed/26892120>

52. kloting n, blüher m: adipocyte dysfunction, inflammation and metabolic syndrome. *rev endocr metab disord* 2014 15:277-287.  
<https://www.ncbi.nlm.nih.gov/pubmed/25344447>

53. blüher m: adipose tissue dysfunction contributes to obesity related metabolic diseases. *best pract res clin endocrinol metab* 2013 27:163-177.  
<https://www.ncbi.nlm.nih.gov/pubmed/23731879>

54. bays he, gonzalez-campoy jm, henry rr, et al.: is adiposopathy (sick fat) an endocrine disease? *int j clin pract* 2008 62:1474-1483.  
<https://www.ncbi.nlm.nih.gov/pubmed/18681905>

55. bays he, gonzalez-campoy jm, bray ga, et al.: pathogenic potential of adipose tissue and metabolic consequences of adipocyte hypertrophy and increased visceral adiposity. *expert rev cardiovasc ther* 2008 6:343-368.  
<https://www.ncbi.nlm.nih.gov/pubmed/18327995>
56. russo l, lumeng cn: properties and functions of adipose tissue macrophages in obesity. *immunology* 2018 155:407-417.  
<https://www.ncbi.nlm.nih.gov/pubmed/30229891>
57. chylikova j, dvorackova j, tauber z, et al.: m1/m2 macrophage polarization in human obese adipose tissue. *biomed pap med fac univ palacky olomouc czech repub* 2018 162:79-82. <https://www.ncbi.nlm.nih.gov/pubmed/29765169>
58. pirola l, ferraz jc: role of pro- and anti-inflammatory phenomena in the physiopathology of type 2 diabetes and obesity. *world j biol chem* 2017 8:120-128.  
<https://www.ncbi.nlm.nih.gov/pubmed/28588755>
59. hamer m, batty gd: association of body mass index and waist-to-hip ratio with brain structure: uk biobank study. *neurology* 2019  
<https://www.ncbi.nlm.nih.gov/pubmed/30626649>
60. fauser bc, tarlatzis bc, rebar rw, et al.: consensus on women's health aspects of polycystic ovary syndrome (pcos): the amsterdam eshre/asrm-sponsored 3rd pcos consensus workshop group. *fertil steril* 2012 97:28-38 e25.  
<https://www.ncbi.nlm.nih.gov/pubmed/22153789>
61. lim ss, norman rj, davies mj, et al.: the effect of obesity on polycystic ovary syndrome: a systematic review and meta-analysis. *obes rev* 2013 14:95-109.  
<https://www.ncbi.nlm.nih.gov/pubmed/23114091>
62. bays he, gonzalez-campoy jm, schorr ab: what men should know about metabolic syndrome, adiposopathy and 'sick fat'. *int j clin pract* 2010 64:1735-1739. <https://www.ncbi.nlm.nih.gov/pubmed/21070523>
63. chetrite gs, feve b: preface to special issue on: adiposopathy in cancer and (cardio)metabolic diseases: an endocrine approach - part 4. *horm mol biol clin investig* 2015 23:1-4. <https://www.ncbi.nlm.nih.gov/pubmed/26353175>
64. booth a, magnuson a, fouts j, et al.: adipose tissue, obesity and adipokines: role in cancer promotion. *horm mol biol clin investig* 2015 21:57-74.  
<https://www.ncbi.nlm.nih.gov/pubmed/25781552>
65. hursting sd, dunlap sm: obesity, metabolic dysregulation, and cancer: a growing concern and an inflammatory (and microenvironmental) issue. *ann n y acad sci* 2012 1271:82-87. <https://www.ncbi.nlm.nih.gov/pubmed/23050968>
66. whiteman dc, wilson lf: the fractions of cancer attributable to modifiable factors: a global review. *cancer epidemiol* 2016 44:203-221.  
<https://www.ncbi.nlm.nih.gov/pubmed/27460784>
67. lauby-secretan b, scoccianti c, loomis d, et al.: body fatness and cancer—viewpoint of the iarc working group. *n engl j med* 2016 375:794-798.  
<https://www.ncbi.nlm.nih.gov/pubmed/27557308>

68. steele cb, thomas cc, henley sj, et al.: vital signs: trends in incidence of cancers associated with overweight and obesity - united states, 2005-2014. *mmwr morb mortal wkly rep* 2017 66:1052-1058. <https://www.ncbi.nlm.nih.gov/pubmed/28981482>

69. subak ll, richter he, hunskaar s: obesity and urinary incontinence: epidemiology and clinical research update. *j urol* 2009 182:s2-7. <https://www.ncbi.nlm.nih.gov/pubmed/19846133>

70. kudish bi, iglesia cb, sokol rj, et al.: effect of weight change on natural history of pelvic organ prolapse. *obstet gynecol* 2009 113:81-88. <https://www.ncbi.nlm.nih.gov/pubmed/19104363>

71. american college of obstetricians and gynecologists. obesity and pregnancy. frequently asked questions. <https://www.acog.org/-/media/for-patients/faq182.pdf> (accessed september 10, 2016).

72. american college of obstetricians gynecologists: acog committee opinion no. 549: obesity in pregnancy. *obstet gynecol* 2013 121:213-217. <https://www.ncbi.nlm.nih.gov/pubmed/23262963>

73. pasquali r, patton l, gambineri a: obesity and infertility. *curr opin endocrinol diabetes obes* 2007 14:482-487. <https://www.ncbi.nlm.nih.gov/pubmed/17982356>

74. yu z, han s, zhu j, et al.: pre-pregnancy body mass index in relation to infant birth weight and offspring overweight/obesity: asystematic review and meta-analysis. *plos one* 2013 8:e61627. <https://www.ncbi.nlm.nih.gov/pubmed/23613888>

additional references used in this section: [4]

obesity paradox

75. lavie cj, de schutter a, parto p, et al.: obesity and prevalence of cardiovascular diseases and prognosis-the obesity paradox updated. *prog cardiovasc dis* 2016 58:537-547. <https://www.ncbi.nlm.nih.gov/pubmed/26826295>

76. smith kb, smith ms: obesity statistics. *prim care* 2016 43:121-135, ix. <https://www.ncbi.nlm.nih.gov/pubmed/26896205>

77. akin i, nienaber ca: "obesity paradox" in coronary artery disease. *world j cardiol* 2015 7:603-608.

<https://www.ncbi.nlm.nih.gov/pubmed/26516414>

78. yu e, ley sh, manson je, et al.: weight history and all-cause and cause-specific mortality in three prospective cohort studies. *ann intern med* 2017 166:613-620.

79. caleyachetty r, thomas gn, toulis ka, et al.: metabolically healthy obese and incident cardiovascular disease events among 3.5 million men and women. *j am coll cardiol* 2017 70:1429-1437. <https://www.ncbi.nlm.nih.gov/pubmed/28911506>

80. chang vw, langa km, weir d, et al.: the obesity paradox and incident cardiovascular disease: a population-based study. *plos one* 2017 12:e0188636. <https://www.ncbi.nlm.nih.gov/pubmed/29216243>

81. bhaskaran k, dos-santos-silva i, leon da, et al.: association of bmi with overall and cause-specific mortality: a population-based cohort study of 3.6 million adults in the uk. *lancet diabetes endocrinol* 2018 6:944-953. <https://www.ncbi.nlm.nih.gov/pubmed/30389323>
82. khan ss, ning h, wilkins jt, et al.: association of body mass index with lifetime risk of cardiovascular disease and compression of morbidity. *jama cardiol* 2018 3:280-287. <https://www.ncbi.nlm.nih.gov/pubmed/29490333>
83. wade kh, carslake d, sattar n, et al.: bmi and mortality in uk biobank: revised estimates using mendelian randomization. *obesity (silver spring)* 2018 26:1796-1806. <https://www.ncbi.nlm.nih.gov/pubmed/30358150>
84. iliudromiti s, celis-morales ca, lyall dm, et al.: the impact of confounding on the associations of different adiposity measures with the incidence of cardiovascular disease: a cohort study of 296 535 adults of white european descent. *eur heart j* 2018 39:1514-1520.
85. jung ch, lee wj, song kh: metabolically healthy obesity: a friend or foe? *korean j intern med* 2017 32:611-621. <https://www.ncbi.nlm.nih.gov/pubmed/28602062>
86. mongraw-chaffin m, foster mc, kalyani rr, et al.: obesity severity and duration are associated with incident metabolic syndrome: evidence against metabolically healthy obesity from the multi-ethnic study of atherosclerosis. *j clin endocrinol metab* 2016 101:4117-4124. <https://www.ncbi.nlm.nih.gov/pubmed/27552544>
87. lavie cj, laddu d, arena r, et al.: healthy weight and obesity prevention: jacc health promotion series. *j am coll cardiol* 2018 72:1506-1531. <https://www.ncbi.nlm.nih.gov/pubmed/30236314>
88. guo f, garvey wt: cardiometabolic disease risk in metabolically healthy and unhealthy obesity: stability of metabolic health status in adults. *obesity (silver spring)* 2016 24:516-525. <https://www.ncbi.nlm.nih.gov/pubmed/26719125>
89. kuk jl, rotondi m, sui x, et al.: individuals with obesity but no other metabolic risk factors are not at significantly elevated allcause mortality risk in men and women. *clin obes* 2018 8:305-312. <https://www.ncbi.nlm.nih.gov/pubmed/29998631>
90. schulze mb: metabolic health in normal-weight and obese individuals. *diabetologia* 2018  
<https://www.ncbi.nlm.nih.gov/pubmed/30569272>
91. gavrilova o, marcus-samuels b, graham d, et al.: surgical implantation of adipose tissue reverses diabetes in lipoatrophic mice. *j clin invest* 2000 105:271-278. <https://www.ncbi.nlm.nih.gov/pubmed/10675352>
92. klein s, fontana l, young vl, et al.: absence of an effect of liposuction on insulin action and risk factors for coronary heart disease. *n engl j med* 2004 350:2549-2557. <https://www.ncbi.nlm.nih.gov/pubmed/15201411>
93. steele l, lloyd a, fotheringham j, et al.: a retrospective cross-sectional study on the association between tobacco smoking and incidence of st-segment elevation

myocardial infarction and cardiovascular risk factors. *postgrad med j* 2015 91:492-496.  
<https://www.ncbi.nlm.nih.gov/pubmed/26265789>

94. rallidis ls, triantafyllis as, tsirebolos g, et al.: prevalence of heterozygous familial hypercholesterolaemia and its impact on longterm prognosis in patients with very early st-segment elevation myocardial infarction in the era of statins. *atherosclerosis* 2016 249:17-21. <https://www.ncbi.nlm.nih.gov/pubmed/27062405>

95. oesch l, tatlisumak t, arnold m, et al.: obesity paradox in stroke - myth or reality? a systematic review. *plos one* 2017 12:e0171334.  
<https://www.ncbi.nlm.nih.gov/pubmed/28291782>

96. zhi g, xin w, ying w, et al.: "obesity paradox" in acute respiratory distress syndrome: asystematic review and meta-analysis. *plos one* 2016 11:e0163677.  
<https://www.ncbi.nlm.nih.gov/pubmed/27684705>

97. park j, ahmadi sf, streja e, et al.: obesity paradox in end-stage kidney disease patients. *prog cardiovasc dis* 2014 56:415-425.  
<https://www.ncbi.nlm.nih.gov/pubmed/24438733>

98. panwar b, hanks lj, tanner rm, et al.: obesity, metabolic health, and the risk of end-stage renal disease. *kidney int* 2015 87:1216-1222.  
<https://www.ncbi.nlm.nih.gov/pubmed/25517912>

99. niederdeppe j, roh s, shapiro ma: acknowledging individual responsibility while emphasizing social determinants in narratives to promote obesity-reducing public policy: a randomized experiment. *plos one* 2015 10:e0117565.  
<https://www.ncbi.nlm.nih.gov/pubmed/25706743>

additional references used in this section: [4][7][21]

stress and obesity

100. harrell cs, gillespie cf, neigh gn: energetic stress: the reciprocal relationship between energy availability and the stress response. *physiol behav* 2016 166:43-55.  
<https://www.ncbi.nlm.nih.gov/pubmed/26454211>

101. yau yh, potenza mn: stress and eating behaviors. *minerva endocrinol* 2013 38:255-267. <https://www.ncbi.nlm.nih.gov/pubmed/24126546>

102. thaler jp, guyenet sj, dorfman md, et al.: hypothalamic inflammation: marker or mechanism of obesity pathogenesis? *diabetes* 2013 62:2629-2634.  
<https://www.ncbi.nlm.nih.gov/pubmed/23881189>

103. moore cj, cunningham sa: social position, psychological stress, and obesity: a systematic review. *j acad nutr diet* 2012 112:518-526.  
<https://www.ncbi.nlm.nih.gov/pubmed/22709702>

104. jackson se, kirschbaum c, steptoe a: hair cortisol and adiposity in a population-based sample of 2,527 men and women aged 54 to 87 years. *obesity (silver spring)* 2017 25:539-544. <https://www.ncbi.nlm.nih.gov/pubmed/28229550>

105. geer eb, lalazar y, couto lm, et al.: a prospective study of appetite and food craving in 30 patients with cushing's disease. *pituitary* 2016 19:117-126. <https://www.ncbi.nlm.nih.gov/pubmed/26496766>
106. capuron l, lasselin j, castanon n: role of adiposity-driven inflammation in depressive morbidity. *neuropsychopharmacology* 201742:115-128. <https://www.ncbi.nlm.nih.gov/pubmed/27402495>
107. nishitani n, sakakibara h: association of psychological stress response of fatigue with white blood cell count in male daytime workers. *ind health* 2014 52:531-534. <https://www.ncbi.nlm.nih.gov/pubmed/24975105>
108. mcgregor ba, murphy km, albano dl, et al.: stress, cortisol, and b lymphocytes: a novel approach to understanding academic stress and immune function. *stress* 2016 19:185-191. <https://www.ncbi.nlm.nih.gov/pubmed/26644211>