Reducing Weight Stigma in Health Care

Prioritizing Wellbeing Over Weight Loss

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Non-Disclosures

- No disclosures or conflicts of interest to report

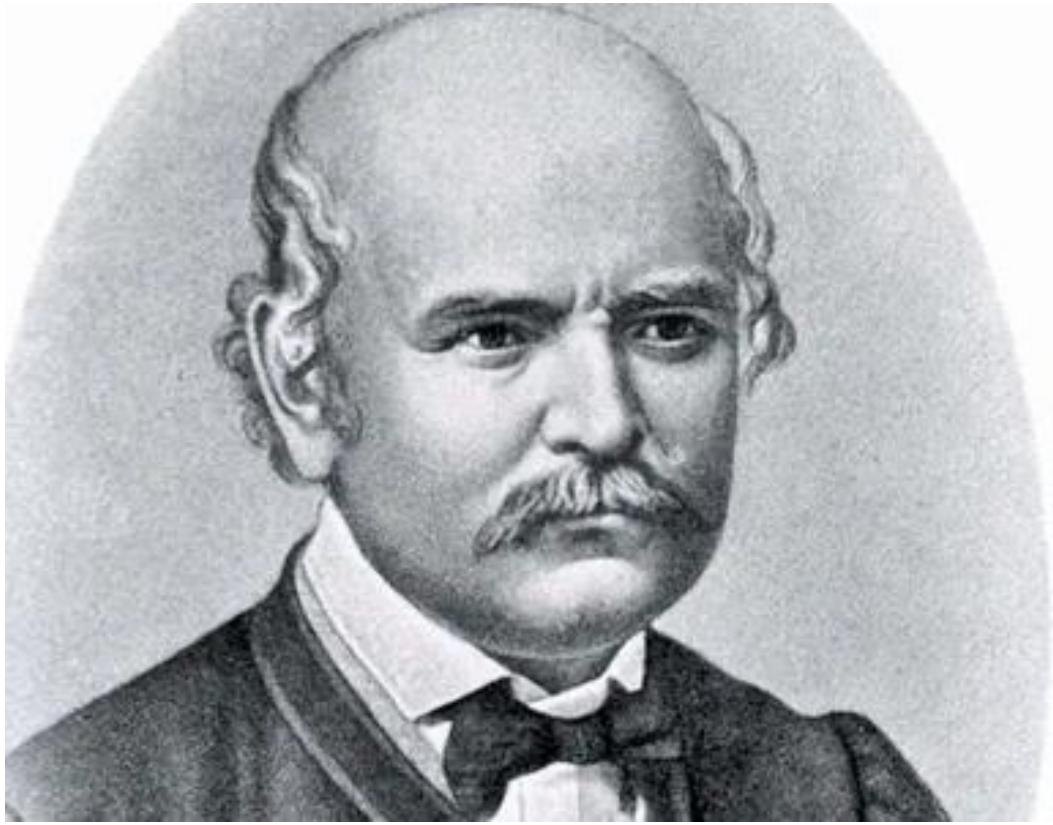
Agenda

- Semmelweis Reflex
- Weight Stigma
- Weight Science
  - Weight Centric vs Weight Inclusive Approach
- Shifting the Focus to Sustainable Healthy Behaviors

Semmelweis Reflex

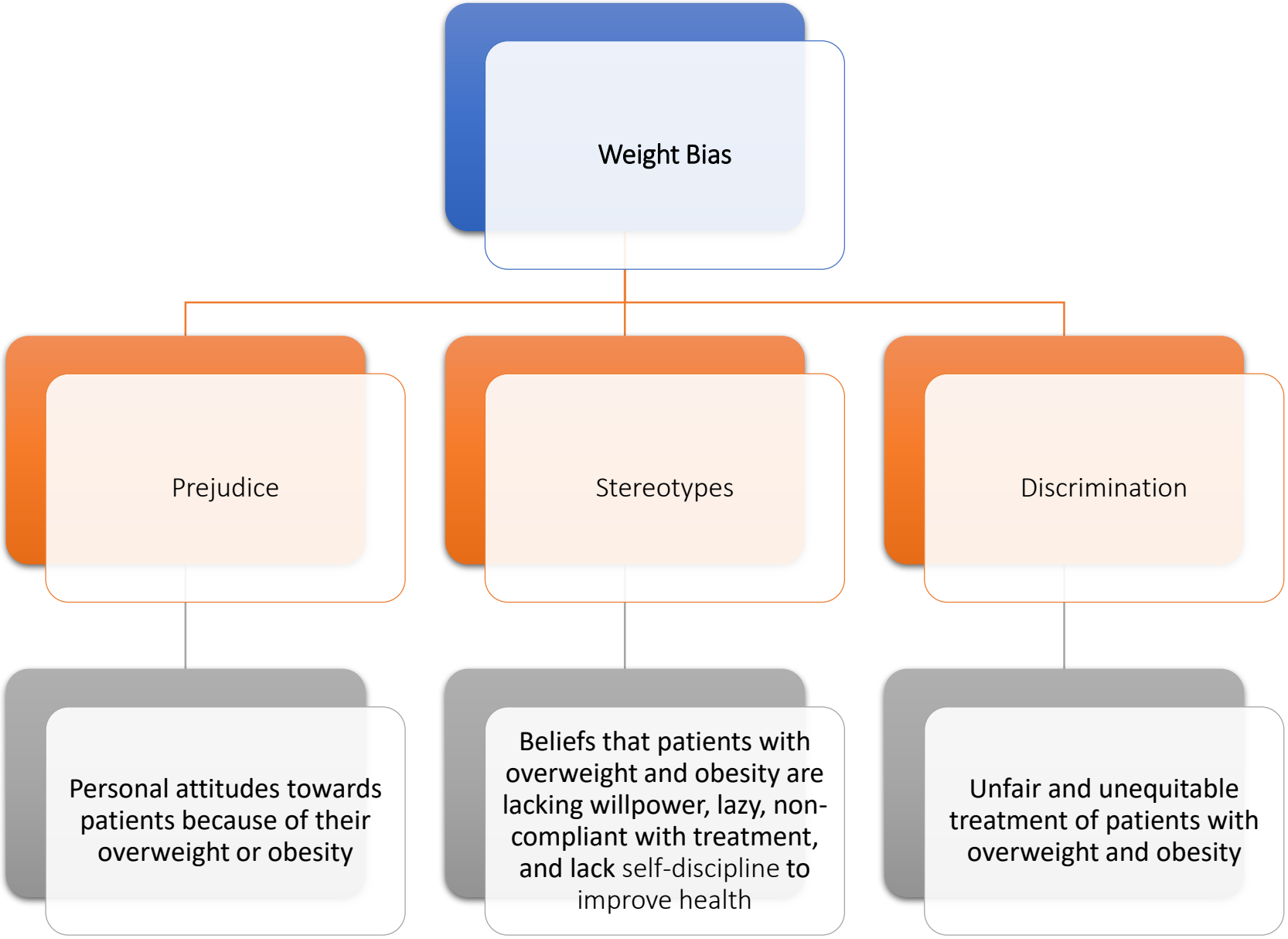
"All great truths begin as blasphemies"
--George Bernard Shaw

- **NIH Definition:** *a human behavioral tendency to stick to preexisting beliefs and to reject fresh ideas that contradict them (despite adequate evidence)*
- Ignaz Semmelweis
  - 19th century physician – pioneered hand hygiene as an antiseptic procedure in modern medicine
  - Vienna General Hospital – he noticed that 1 of 2 maternity clinics had higher mortality rate -- purpureal sepsis/child-bed fever – suggested handwashing
  - Doctrine ignored/ridiculed despite strong data



Weight Stigma

- Weight bias, weight discrimination, fatphobia
- Shame, judgment, inequalities and stereotypes placed on individuals based on weight and body size
- The association between increased body weight and certain medical conditions translates into the common practice of recommending weight loss to individuals of higher body weight



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Examples of weight stigma:

- Assuming someone is lazy due to their weight
- Judging someone in a larger body for eating a food like pizza
- Recommending weight loss to someone in a larger body as 1st line of defense for management of a medical condition
- Blaming someone's health condition on their weight
- Not believing someone's portrayal of lifestyle behaviors d/t their weight/body size

Did you know...

Individuals with obesity experience different types of weight stigma in their daily lives.[20]

- *Direct stigma*
  - Being laughed at when exercising or eating in public
  - Stigmatizing comments at school and in the workplace
- *Environmental Stigma*
  - Inappropriately-sized equipment and facilities at gyms and medical offices
  - Unsuitable seating in modes of public transportation and other public venues
- *Indirect stigma*
  - Being avoided or excluded in social situations
  - Being ignored by customer service staff

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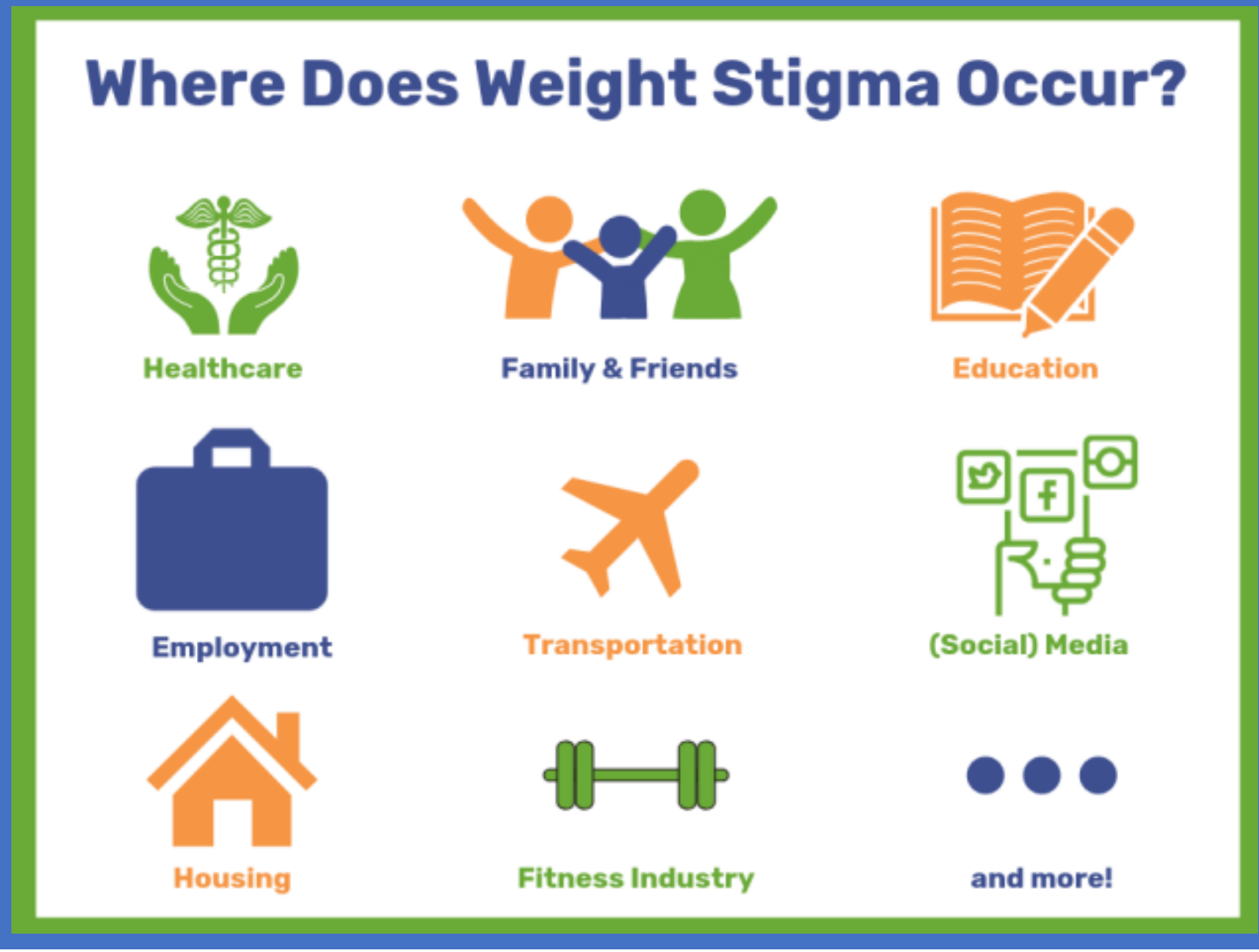
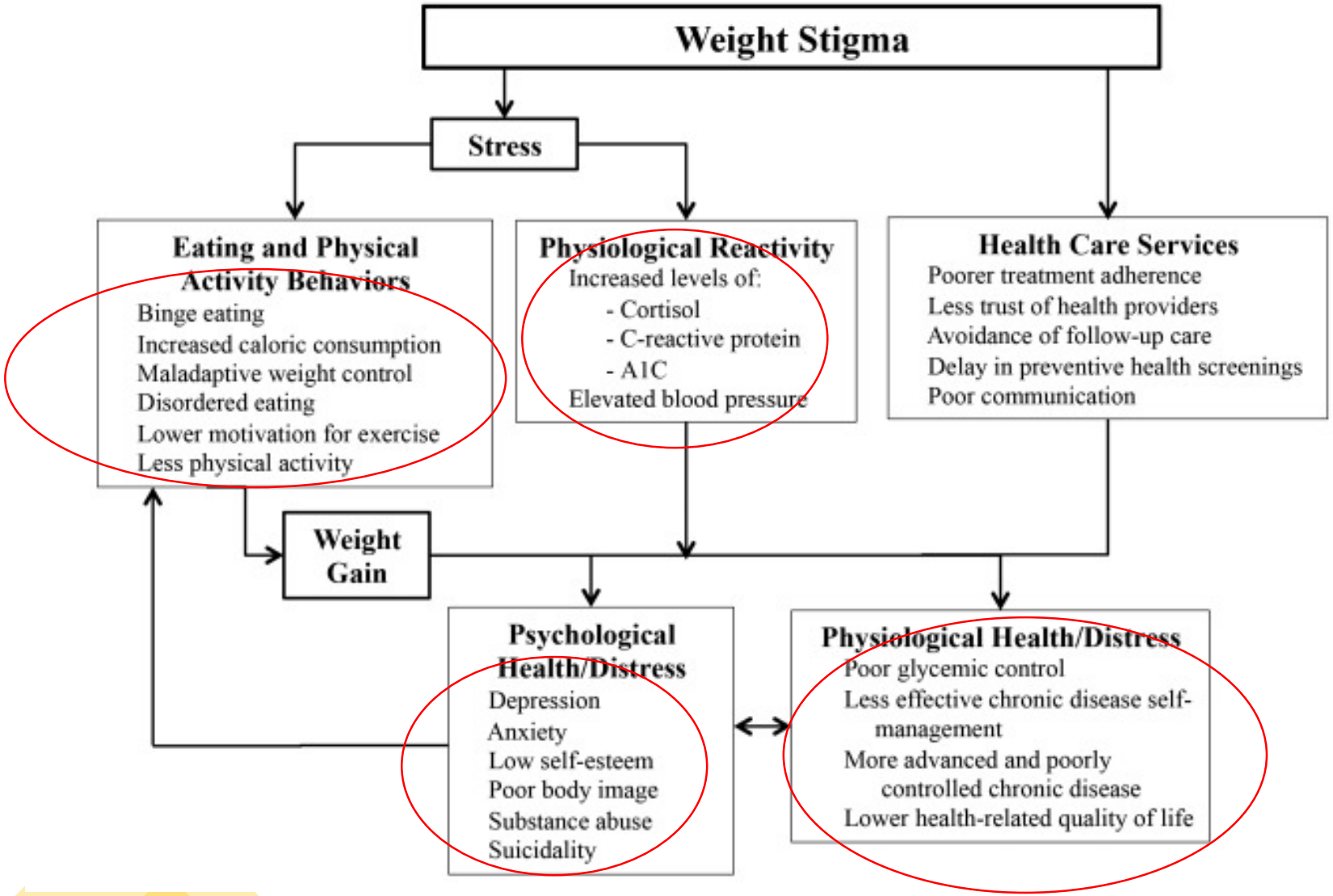


https://cme.dmu.edu/sites/default/files/Legalizing%20Eating%20with%20Diabetes.pdf



Puhl RM, Phelan SM, Nadglowski J, Kyle TK. Overcoming Weight Bias in the Management of Patients With Diabetes and Obesity. Clin Diabetes. 2016 Jan;34(1):44-50. doi: 10.2337/diaclin.34.1.44. PMID: 26807008; PMCID: PMC4714720.

Reflection

Take 1 minute to write down some examples of weight stigma within your facility & consider a way to resolve

Weight Science

Weight Centric Approach

Putting body weight at the center of thinking and talking about health.

Public health researchers define the weight-centric approach as having the following 6 beliefs and assumptions:

1. Weight is under individual control
2. Weight gain is caused by an imbalance in caloric intake and energy usage
3. Health status can be predicted by weight
4. Excess body weight causes disease and early death
5. Methods for successful long-term weight loss involve the modification of eating and exercise patterns
6. Losing weight will result in better health

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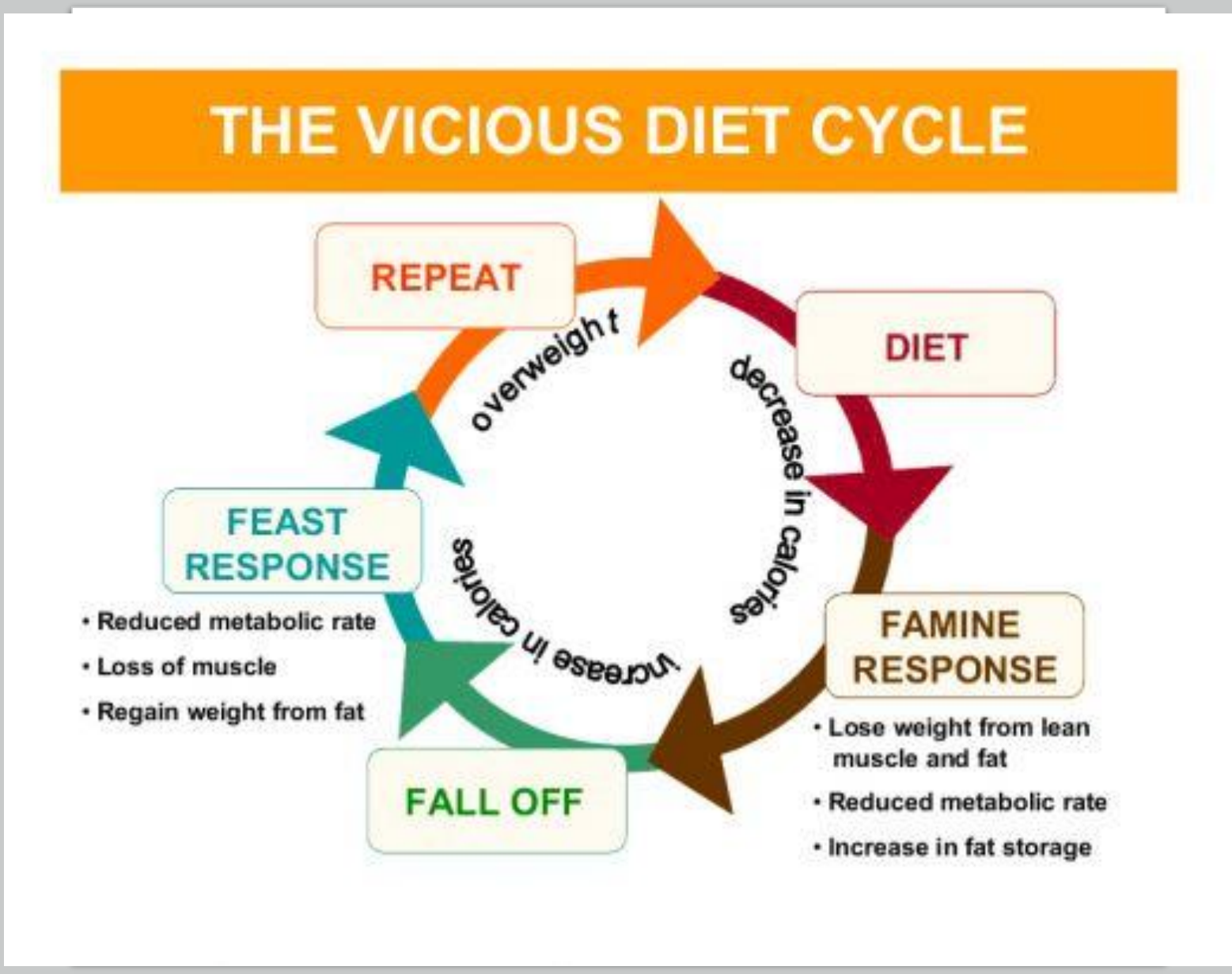
The Data Behind Failure of Weight Loss Attempts

- No long term results documented from weight loss initiatives
- "Despite plethora of interventions that result in initial weight loss, participants almost always fail to maintain behavior changes that brought them these results"[1]
- It is estimated that around 20% of participants who complete weight-based lifestyle intervention programs maintain weight loss one year later, & this percentage continues to drop by 2nd year[2]
- Meta analysis of 29 studies on structured weight loss programs in US found that participants regained 77% of their initial weight loss (on avg) after 5 years[3]

1) R. W. Jeffery, L. H. Epstein, G. T. Wilson et al., "Long-term maintenance of weight loss: current status," *Health Psychology*, vol. 19, no. 1, pp. 5–16, 2000.
2) R. R. Wing and S. Phelan, "Long-term weight loss maintenance," *The American Journal of Clinical Nutrition*, vol. 82, no. 1, pp. 222S–225S, 2005.
3) J. W. Anderson, E. C. Konz, R. C. Frederich, and C. L. Wood, "Long-term weight-loss maintenance: a meta-analysis of US studies," *The American Journal of Clinical Nutrition*, vol. 74, no. 5, pp. 579–584, 2001.

Dangers of Weight Cycling

- Repeated periods of weight loss & weight gain
- Linked to compromised health:
  - Higher mortality
  - Higher risk of osteoporotic fractures
  - Chronic inflammation
  - Muscle tissue loss
  - HTN
  - Some forms of cancer
  - CAD



VARIABILITY OF BODY WEIGHT AND HEALTH OUTCOMES IN THE FRAMINGHAM POPULATION

LAUREN LISSNER, PH.D., PATRICIA M. ODELL, PH.D., RALPH B. D'AGOSTINO, PH.D., JOSEPH STOKES III, M.D., BERNARD E. KREGER, M.D., ALBERT J. BELANGER, M.A., AND KELLY D. BROWNELL, PH.D.

Abstract *Background.* Fluctuation in body weight is a common phenomenon, due in part to the high prevalence of dieting. In this study we examined the associations between variability in body weight and health end points in subjects participating in the Framingham Heart Study, which involves follow-up examinations every two years after entry.

Methods. The degree of variability of body weight was expressed as the coefficient of variation of each subject's measured body-mass-index values at the first eight biennial examinations during the study and on their recalled weight at 25 years of age. Using the 32-year follow-up data, we analyzed total mortality, mortality from coronary heart disease, and morbidity due to coronary heart disease and cancer in relation to intraindividual variation in body weight, including only end points that occurred after the 10th biennial examination. We used age-adjusted proportional-hazards regression for the data analysis.

Results. Subjects with highly variable body weights had increased total mortality ($P = 0.005$ for men, $P = 0.01$ for women), mortality from coronary heart disease ($P = 0.009$ for men, $P = 0.009$ for women), and morbidity due to coronary heart disease ($P = 0.0009$ for men, $P = 0.006$ for women). Using a multivariate analysis that also controlled for obesity, trends in weight over time, and five indicators of cardiovascular risk, we found that the positive associations between fluctuations in body weight and end points related to mortality and coronary heart disease could not be attributed to these potential confounding factors. The relative risks of these end points in subjects whose weight varied substantially, as compared with those whose weight was relatively stable, ranged from 1.27 to 1.93.

Conclusions. Fluctuations in body weight may have negative health consequences, independent of obesity and the trend of body weight over time. (N Engl J Med 1991; 324:1839-44.)

Assumption: Weight is Completely Within Our Control

- **It has been argued that weight is like height in that it is predominately controlled by DNA**
- **Factors that influence weight:**
    - Early childhood trauma
        - Impacts our neurochemistry and neurophysiology
        - Associated with higher levels of stress hormones (impacting weight)
    - Medical conditions & medications
        - Evidence that insulin resistance causes weight gain as opposed to the other way around[1]
        - number of medications clearly state weight gain as side effect
    - Determinants of health
    - Dieting behaviors

1) Ernsberger, Paul & Koletsky, R.J.. (2002). Biomedical Rationale for a Wellness Approach to Obesity: An Alternative to a focus on Weight Loss. Journal of Social Issues. 55. 221 - 260. 10.1111/0022-4537.00114.

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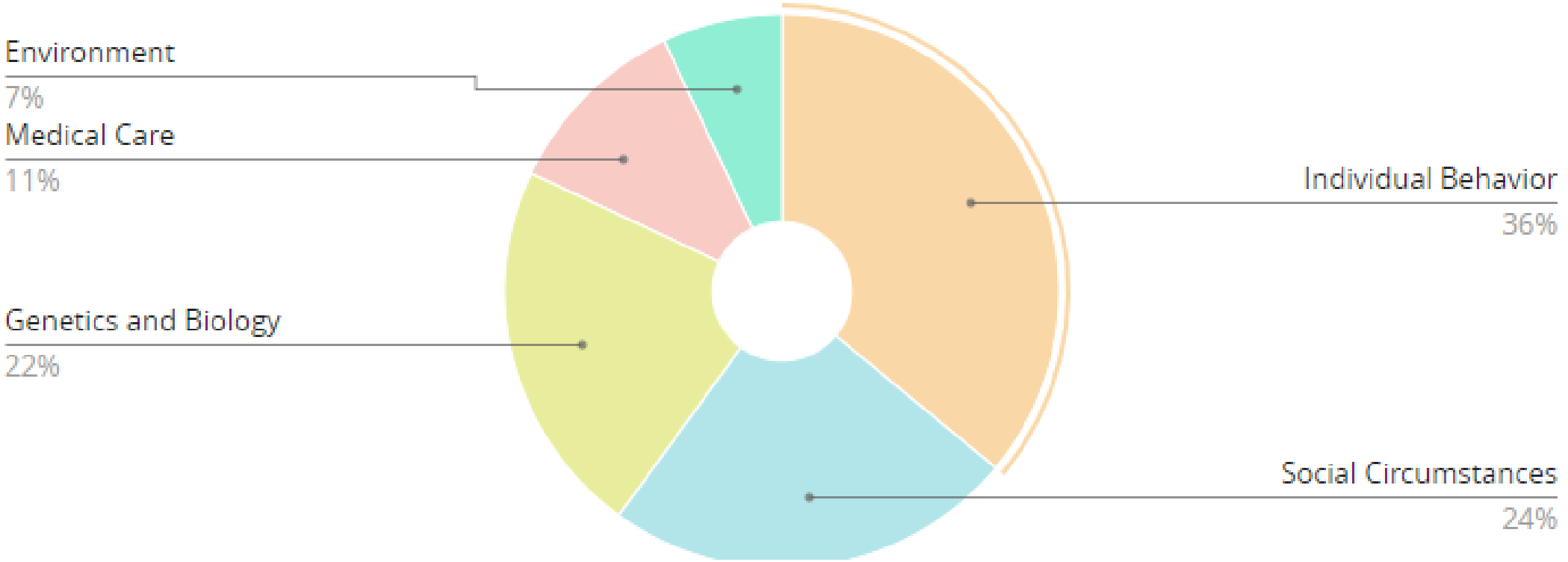
Determinants of Health



[Determinants of Health Visualized (goinvo.com)]

Assumption: It's Just Calories in Vs Calories Out, Right?

- Human metabolism is nuanced & energy expenditure & energy requirements vary
  - Interfering factors
    - Gut microbiome
    - Metabolic adaptation
    - Hormones
    - Illness
    - Etc
- **Greatest risk factor for weight gain is weight loss**
  - Dieting and weight cycling have been shown to increase overall weight in the long term
    - theories include: chronic stress/allostatic load, disordered eating, & interfering with set point weight
- Suppression of metabolic rate and loss of lean mass by the negative energy balance of caloric restriction may facilitate post-dieting weight-rebound
  - Biggest Loser Study

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Original Article
OBESITY BIOLOGY AND INTEGRATED PHYSIOLOGY

Obesity

Persistent Metabolic Adaptation 6 Years After "The Biggest Loser" Competition

Erin Fothergill[1], Juen Guo[1], Lilian Howard[1], Jennifer C. Kerns[2], Nicolas D. Knuth[3], Robert Brychta[1], Kong Y. Chen[1], Monica C. Skarulis[1], Mary Walter[1], Peter J. Walter[1], and Kevin D. Hall[1]

Objective: To measure long-term changes in resting metabolic rate (RMR) and body composition in participants of "The Biggest Loser" competition.

Methods: Body composition was measured by dual energy X-ray absorptiometry, and RMR was determined by indirect calorimetry at baseline, at the end of the 30-week competition and 6 years later. Metabolic adaptation was defined as the residual RMR after adjusting for changes in body composition and age.

Results: Of the 16 "Biggest Loser" competitors originally investigated, 14 participated in this follow-up study. Weight loss at the end of the competition was (mean ± SD) 58.3 ± 24.9 kg ($P < 0.0001$), and RMR decreased by 610 ± 483 kcal/day ($P = 0.0004$). After 6 years, 41.0 ± 31.3 kg of the lost weight was regained ($P = 0.0002$), while RMR was 704 ± 427 kcal/day below baseline ($P < 0.0001$) and metabolic adaptation was −499 ± 207 kcal/day ($P < 0.0001$). Weight regain was not significantly correlated with metabolic adaptation at the competition's end ($r = -0.1$, $P = 0.75$), but those subjects maintaining greater weight loss at 6 years also experienced greater concurrent metabolic slowing ($r = 0.59$, $P = 0.025$).

Conclusions: Metabolic adaptation persists over time and is likely a proportional, but incomplete, response to contemporaneous efforts to reduce body weight.

Obesity (2016) **00**, 00-00. doi:10.1002/oby.21538

International Journal of Obesity (2012) 36, 456–464

0307-0565/12
www.nature.com/ijo

ORIGINAL ARTICLE

Does dieting make you fat? A twin study

KH Pietiläinen[1,2,3], SE Saarni[2,4], J Kaprio[2,3,4] and A Rissanen[1]

[1]*Obesity Research Unit, Department of Medicine, Division of Internal Medicine and Department of Psychiatry, Helsinki University Central Hospital, Helsinki, Finland;* [2]*Finnish Twin Cohort Study, Department of Public Health, Hjelt Institute, University of Helsinki, Helsinki, Finland;* [3]*Institute for Molecular Medicine, Helsinki, Finland and* [4]*Department of Mental Health and Substance Abuse Services, National Institute for Health and Welfare, Helsinki, Finland*

Objective: To investigate whether the paradoxical weight gain associated with dieting is better related to genetic propensity to weight gain than to the weight loss episodes themselves.
Subjects: Subjects included 4129 individual twins from the population-based FinnTwin16 study (90% of twins born in Finland 1975–1979). Weight and height were obtained from longitudinal surveys at 16, 17, 18 and 25 years, and number of lifetime intentional weight loss (IWL) episodes of more than 5 kg at 25 years.
Results: IWLs predicted accelerated weight gain and risk of overweight. The odds of becoming overweight (body mass index (BMI) $\geqslant 25\,kg\,m^{-2}$) by 25 years were significantly greater in subjects with one (OR 1.8, 95% CI 1.3–2.6, and OR 2.7, 1.7–4.3 in males and females, respectively), or two or more (OR 2.0, 1.3–3.3, and OR 5.2, 3.2–8.6, in males and females, respectively), IWLs compared with subjects with no IWL. In MZ pairs discordant for IWL, co-twins with at least one IWL were $0.4\,kg\,m^{-2}$ ($P=0.041$) heavier at 25 years than their non-dieting co-twins (no differences in baseline BMIs). In DZ pairs, co-twins with IWLs gained progressively more weight than non-dieting co-twins (BMI difference $1.7\,kg\,m^{-2}$ at 16 years and $2.2\,kg\,m^{-2}$ at 25 years, $P<0.001$).
Conclusion: Our results suggest that frequent IWLs reflect susceptibility to weight gain, rendering dieters prone to future weight gain. The results from the MZ pairs discordant for IWLs suggest that dieting itself may induce a small subsequent weight gain, independent of genetic factors.
International Journal of Obesity (2012) **36**, 456–464; doi:10.1038/ijo.2011.160; published online 9 August 2011

Keywords: weight loss; weight regain; longitudinal studies; genetic; twins

The risk of becoming overweight by 25 years in the initially non-overweight participants was proportional to the IWL frequency. Males with one or at least two IWLs were significantly more likely to become overweight than males with no IWLs. Among females, the gradient by IWL was even steeper. Adjusting for the possible confounders and baseline BMI did not change the result.

Assumption: Health Status Can be Predicted by Weight

While there are known associations between weight and chronic health conditions, it is important to remember that **association is not the same as causation**.

- There is no evidence that overall health status can be confidently predicted by weight[1]
- Large epidemiological studies do not support the claim that life expectancy is reduced in people with higher than normal weight BMI
  - Studies show BMI between 25-30 have the longest life expectancy
  - One large epidemiological study showed those w/ BMI of 34-36 had a higher life expectancy than those with a BMI of 18-20[2]
- **In a study of the "relationship between low cardiorespiratory fitness and mortality", active fat people had half the cardiovascular disease mortality rates of sedentary people with a "healthy BMI"[3]**
  - To predict cardiovascular health, ask about activity level over weighing pts

1) Paul Campos, Abigail Saguy, Paul Ernsberger, Eric Oliver, Glenn Gaesser, The epidemiology of overweight and obesity: public health crisis or moral panic?, *International Journal of Epidemiology*, Volume 35, Issue 1, February 2006, Pages 55–60, https://doi.org/10.1093/ije/dyi254

2) Waaler HT. Height, weight and mortality. The Norwegian experience. Acta Med Scand Suppl. 1984;679:1-56. doi: 10.1111/j.0954-6820.1984.tb12901.x. PMID: 6585126.

3) Wei M, Kampert JB, Barlow CE, Nichaman MZ, Gibbons LW, Paffenbarger RS Jr, Blair SN. Relationship between low cardiorespiratory fitness and mortality in normal-weight, overweight, and obese men. JAMA. 1999 Oct 27;282(16):1547-53. doi: 10.1001/jama.282.16.1547. PMID: 10546694.

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Assumption: Excess Body Weight Causes Disease

- **Almost all studies associating weight to chronic disease do not control for potential confounding factors:**
  - weight cycling, weight stigma, poverty, chronic stress, physical activity, & diet history
    - all associated with increased adiposity
- **Type 2 diabetes – twin studies demonstrate etiology of diabetes is thought to be predominately genetic[1]**
  - "Insulin resistance may be the key defect that independently leads to obesity, hypertension, and diabetes. Insulin resistance, rather than obesity, may be the principal determinant of diabetes"[2]
- **Growing evidence that 'excess' weight is protective against mortality and morbidity. This is known as the "obesity paradox"**

1) Barnett AH, Eff C, Leslie RD, Pyke DA. Diabetes in identical twins. A study of 200 pairs. Diabetologia. 1981 Feb;20(2):87-93. doi: 10.1007/BF00262007. PMID: 7193616.

2) Ernsberger, Paul & Koletsky, R.J.. (2002). Biomedical Rationale for a Wellness Approach to Obesity: An Alternative to a focus on Weight Loss. Journal of Social Issues. 55. 221 - 260. 10.1111/0022-4537.00114.

More Findings

The following conditions are seen less often in people in the 'obese' category than in the 'healthy weight' category:

- Lung, stomach, colon and esophageal cancer
- Malignant melanoma,
- Pre-menopausal breast cancer
- Chronic bronchitis
- Tuberculosis
- Mitral valve prolapse
- Anemia
- Type 1 diabetes
- Premature menopause
- Osteoporosis

Studies have shown higher survival rates in people in the 'obese' category compared to those in the 'healthy weight' category in the following conditions:

- Aortic Atherosclerosis
- Hypertension
- Heart failure
- Coronary artery bypass graft surgery
- Peripheral arterial disease
- End stage renal disease and dialysis
- Advanced cancer
- Chronic obstructive lung disease
- Rheumatoid arthritis
- HIV/AIDS

Ovbiagele B, Bath PM, Cotton D, Vinisko R, Diener HC. Obesity and recurrent vascular risk after a recent ischemic stroke. Stroke. 2011 Dec;42(12):3397-402. doi: 10.1161/STROKEAHA.111.624957. Epub 2011 Sep 29. PMID: 21960576.

Assumption: Losing Weight Always Results in Better Health

- Long-term studies (beyond 6 months) that demonstrate improvement in metabolic markers, symptoms and quality of life following weight loss are scant. Those that do study beyond 6 months often find patients relapse beyond 18 months.[1]
- A literature review found that weight loss diets led to minimal improvements in cholesterol, triglycerides, systolic and diastolic blood pressure, and fasting blood glucose, and that none of these correlated with the weight lost.[2]

1. Ernsberger, Paul & Koletsky, R.J.. (2002). Biomedical Rationale for a Wellness Approach to Obesity: An Alternative to a focus on Weight Loss. Journal of Social Issues. 55. 221 - 260. 10.1111/0022-4537.00114.
2. Tomiyama, A. Janet., Ahlstrom, Britt, & Mann, Traci. (2013). Long-term effects of dieting: Is weight loss related to health?. Social and Personality Psychology Compass. Volume 7, Issue 12. https://doi.org/10.1111/spc3.12076.

Despite all this evidence, we still recommend weight loss as primary treatment option

NEED FOR PARADIGM SHIFT

Weight Inclusive Approach

Data reveal that the weight normative approach is not effective due to higher rates of weight regain/cycling (adverse health outcomes), and fostering stigma in health care & society (weight stigma = adverse health outcomes).

Data support a weight inclusive approach, including Health At Every Size model, for improving physical, behavioral, and psychological indices, and acceptability of public health messages.

Weight inclusive approach upholds nonmaleficence and beneficence, whereas the weight-normative approach does not.

"Instead of imagining that well-being is only possible at a specific weight, a weight-inclusive approach considers empirically supported practices that enhance people's health in patient care and public health settings regardless of where they fall on the weight spectrum."

The Weight-Inclusive versus Weight-Normative Approach to Health: Evaluating the Evidence for Prioritizing Well-Being over Weight Loss

Tracy L. Tylka,[1] Rachel A. Annunziato,[2] Deb Burgard,[3] Sigrún Daníelsdóttir,[4] Ellen Shuman,[5] Chad Davis,[2] and Rachel M. Calogero[6]

Show more

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Abstract

Using an ethical lens, this review evaluates two methods of working within patient care and public health: the *weight-normative approach* (emphasis on weight and weight loss when defining health and well-being) and the *weight-inclusive approach* (emphasis on viewing health and well-being as multifaceted while directing efforts toward improving health access and reducing weight stigma). Data reveal that the weight-normative approach is not effective for most people because of high rates of weight regain and cycling from weight loss interventions, which are linked to adverse health and well-being. Its predominant focus on weight may also foster stigma in health care and society, and data show that weight stigma is also linked to adverse health and well-being. In contrast, data support a weight-inclusive approach, which is included in models such as Health at Every Size for improving physical (e.g., blood pressure), behavioral (e.g., binge eating), and psychological (e.g., depression) indices, as well as acceptability of public health messages. Therefore, the weight-inclusive approach upholds nonmaleficience and beneficience, whereas the weight-normative approach does not. We offer a theoretical framework that organizes the research included in this review and discuss how it can guide research efforts and help health professionals intervene with their patients and community.

Principles of Health At Every Size (R)

- Accepting and respecting the diversity of body shapes and sizes
- Recognizing that health and well-being are multi-dimensional and include physical, social, spiritual, occupational, emotional, and intellectual aspects
- Promoting all aspects of health and well-being for people of all sizes
- Promoting eating in a manner which balances individual nutrition needs, hunger, satiety, appetite, and pleasure
- Promoting individually appropriate, enjoyable, life-enhancing physical activity, rather than exercise that is focused on a goal of weight loss

ASDAH, Health at Every Size® (HAES®) Principles, www.sizediversityandhealth.org

Comparing the Underlying Assumptions

Traditional Weight-Loss Paradigm	Health At Every Size
Everyone needs to be thin for good health and happiness,	Thin is not intrinsically healthy and beautiful, nor is fat intrinsically unhealthy and unappealing.
People who are not thin are "overweight" because they have no willpower, eat too much, and don't move enough.	People naturally have different body shapes and sizes and different preferences for physical activity.
Everyone can be thin, happy, and healthy by dieting.	Dieting often ultimately leads to further weight gain, decreased self-esteem, and increased risk for disordered eating. Health and happiness involve a dynamic interaction among mental, social, spiritual, and physical considerations.

Robison (2005)

Strategies to Reduce Weight Bias in Clinical Care

Providers may not be aware of the ways in which they communicate weight bias to their patients.

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Example of weight neutral/weight inclusive approach to blood sugar management:

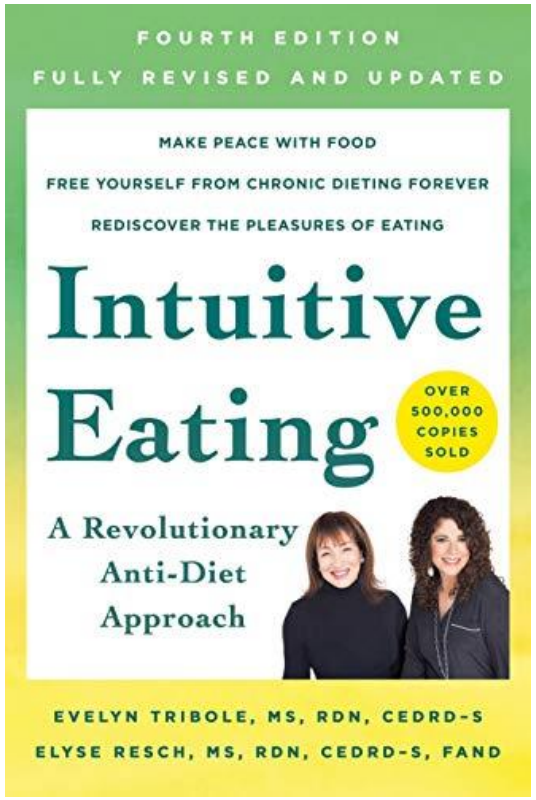
- Medications
- Stress management
- Sleep
- Resistance training
- Cardiovascular exercise
- Consistent eating pattern
- Pair protein & fat with carbs at meals/snacks
- Walk/movement after eating

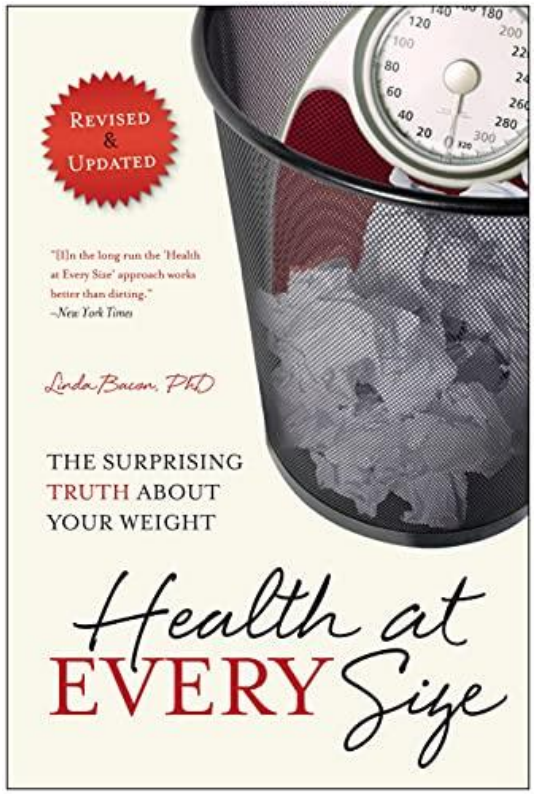
Recommendations for RD's

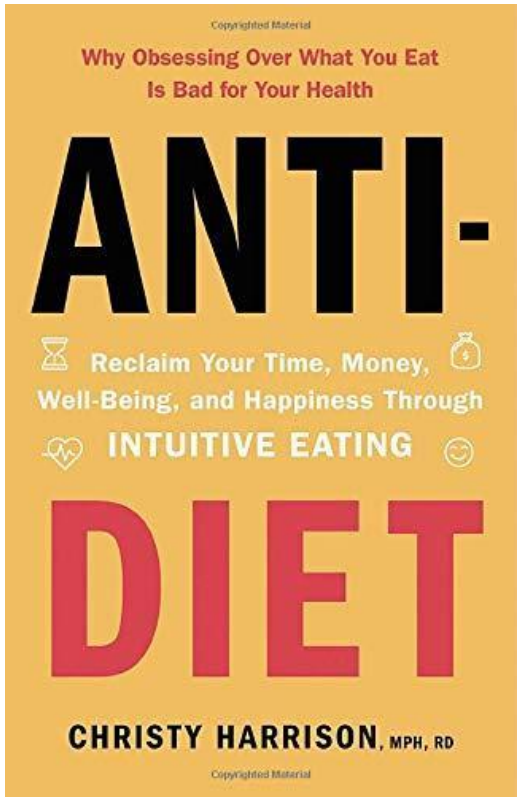
- Help clients set non-weight centered goals
- Promote Intuitive Eating & use "gentle nutrition" recs
- Ask for permission
- Paint picture of whole person health
- Ways to measure progress outside of weight
- Encourage decreasing behaviors that cause distress and/or that promote disordered eating
- Promote variety, balance, & adequate nourishment
- Move away from restrictive recommendations
- Encourage satisfaction within meals
- Discuss hunger/fullness cues & ways to manage emotional eating

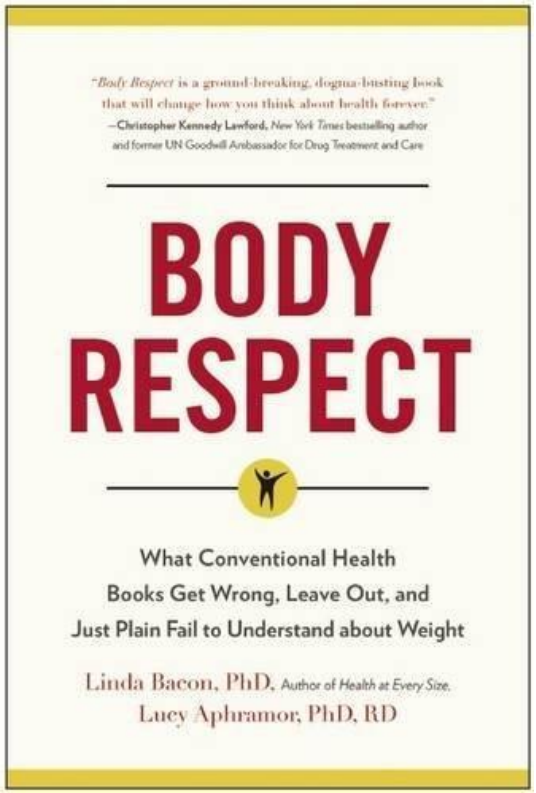
Weight Inclusivity in Cardiopulmonary Rehab Setting

- Limit days patients are weighed ("weigh Wednesdays")
- Risk stratify need for daily weights
  - CHF, CKD, those on diuretics, those at risk for malnutrition, N/V/D, etc
- Blind weights
- Offer inclusive seating – include some chairs without arm rests
- Inclusive BP cuffs
- Increase awareness of personal bias & language used around body sizes
- Focus on healthy behaviors as goals vs BMI or weight loss
- Challenge the idea that weight loss = improved health
- Assess for disordered behaviors (excessive restriction, excessive exercise, excessive weighing, etc)









Interested in More?

Helpful Links:

- https://static1.squarespace.com/static/5fb86eba97f99b5c891c9a94/t/616ee5c44672806d48a47307/1634657732134/HAES+Approach+Facts+.pdf
- https://www.noweigh.org/

Thank you!

Questions?