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Funding for this center's initiative was made possible by Grant No. H79SM081924 from the Substance Abuse and Mental Health Services Administration (SAMHSA). Any views communicated or shared in written and recorded resource materials or publications and by presenters do not reflect the official policies of the Department of Health and Human Services, nor does the mention of organizations, or commercial or private practices imply endorsement by the National Center of Excellence for Eating Disorders (NCEED) or the U.S. Government.



# NCEED

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## Weight & Eating Behaviors: A Non-Stigmatizing Approach

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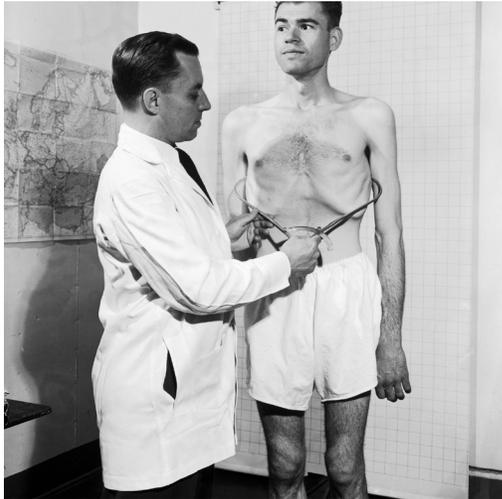
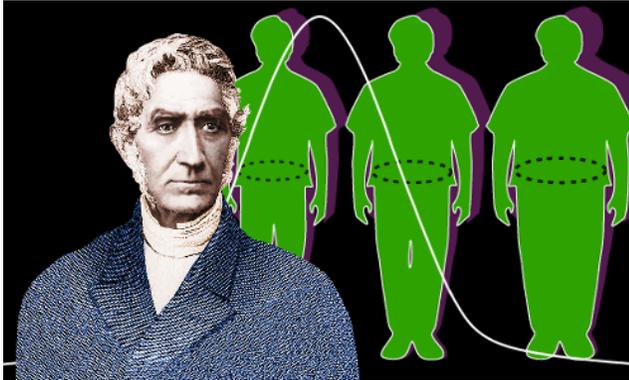
# Objectives

- Understand the history of BMI as a measure of health
- Identify stigmatizing behaviors and interventions focused on weight
- Establish non-stigmatizing strategies to assess and discuss weight and eating behaviors



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# Origin of BMI



- Formula developed in 1847 by statistician/astronomer, Adolphe Quetlet, as means of studying populations
- In 1972, Keys et al, suggested using Quetlet's formula ( $W/H^2$ ) as a weight index, coining the term Body Mass Index (BMI) to identify individuals with excessive adiposity
- Important caveat:  
*"...it is unlikely that any weight index will provide an acceptable indication of adiposity or body fatness"*



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# BMI as a Measure of Health

- Weight indices originally used for life insurance assessment
- Keys criticized use of weight and/or weight indices stating they were inaccurate assessments of “fatness”
- 1990’s World Health Organization shifted to BMI
- 1995 categories were determined by an expert panel classifying individuals based on BMI as underweight, normal weight, overweight and obese

(Ancel at al, reprinted 2014; Nuttall, 2015)



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# BMI as a Measure of Health

- Used to categorize/define degree of adiposity
- BMI > 30 kg/m<sup>2</sup> defined as obesity
- Ignores complexity of weight gain such as overall body composition as well as location of adipose tissue
- Medical establishment widely promotes the association between obesity and multiple medical problems although confounders and bias suggest more complexity
- Modest weight loss appears to reduce mortality when there are comorbidities but not in healthy individuals defined as overweight

(Memon et al, 2020; Nuttall, 2015)

# BMI Limitations

- 2016 Tomiyama et al evaluated NHANES 2005-2012 data revealing more than 74 million individuals would be misclassified based on BMI
  - Metabolically healthy
    - Almost half of overweight individuals
    - 29% of obese individuals
    - 16% of obesity type 2/3 individuals
  - Metabolically unhealthy
    - 30% of “normal weight” individuals
- Proposed using more accurate markers of health such as physical activity, cardiorespiratory fitness, waist circumference, body composition and/or biomarkers such as blood pressure, triglyceride, cholesterol, glucose, insulin resistance and c-reactive protein.

# Weight Stigma



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- *Negative attitudes and beliefs that devalue people based on their weight status resulting in labeling, stereotyping, and discrimination*
- Despite genetic, biologic and environmental drivers of weight regulation, public perception and policies emphasize personal responsibility
- 40-50% US adults w/overweight or obesity report internalized weight bias
- 71% of US adolescents report being bullied about their weight in the past year

(Brown et al, 2022; Puhl et al, 2018; Clark et al, 2021)

## Weight Stigma on Social Media

- Social media weight stigmatizing already existed but skyrocketed during COVID19
- Documented relationship between social media and disordered eating behaviors
- Excessive false advertising showing quick fixes and dramatic before and after photos
- Increased likelihood of online weight-based bullying
- Flawed social media algorithms increasing exposure to weight loss promotion and decreasing exposure to body positive influencers



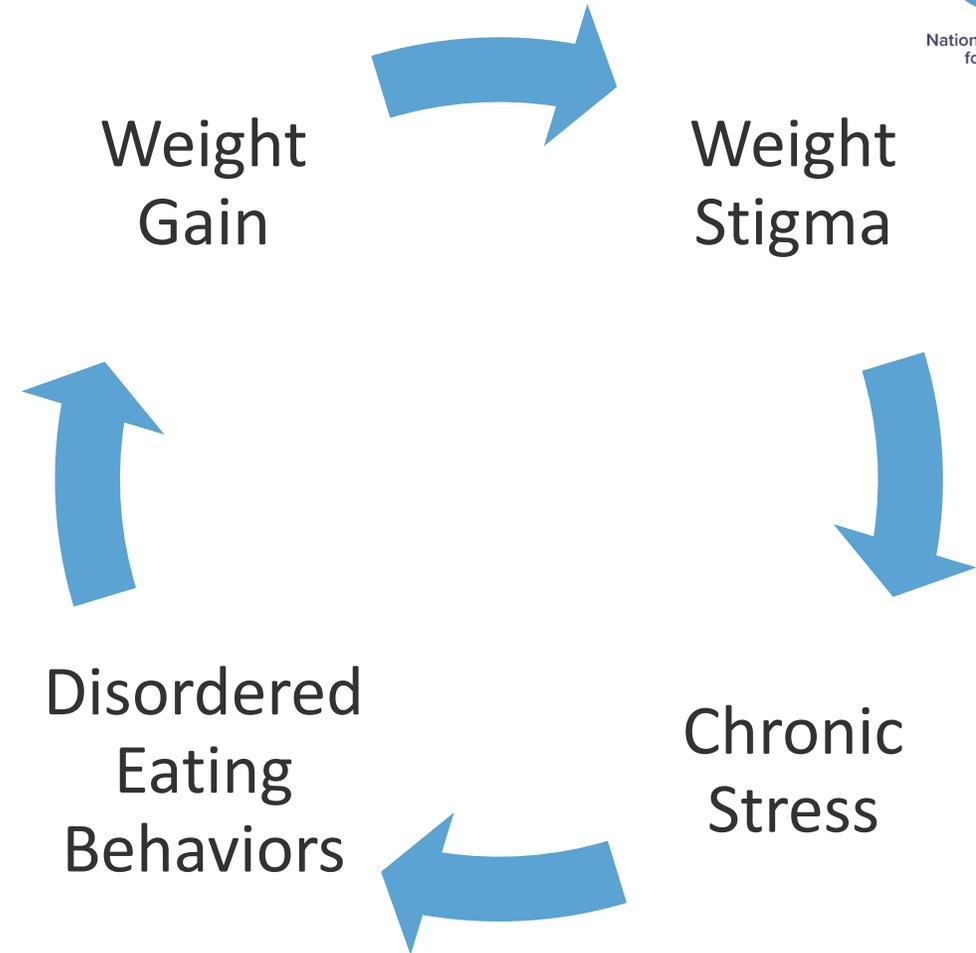
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(Clark et al, 2021)

# Impact of Weight Stigma and Discrimination

- Worse psychological wellbeing
  - 30-40% of impaired psychological well-being attributed to weight discrimination
  - Depressed mood
  - Low self-esteem
  - Substance use
- Exercise avoidance
- Delay in seeking healthcare
- Disordered eating behaviors
- Transition from overweight to obese



(Brown et al, 2022; Jackson et al, 2015)

# Weight Stigma: Psychological and Physiological Harm

- Increased inflammatory markers associated with discrimination
  - CRP higher when individuals with BMI around 30 reported weight discrimination
- Randomized trial that exposed individuals to stigmatizing comments associated with elevated cortisol, hypertension, hyperglycemia, insulin resistance and hyperlipidemia
- Multiple studies suggest perceived weight discrimination associated with glucose dysregulation and chronic inflammation
- MIDUS (Midlife in the United States) and Health and Retirement Study
  - Weight discrimination associated with ~60% mortality risk when controlling for physical and psychological risk factors
  - Risk was higher than most other forms of discrimination including race and gender

(Sutin et al, 2011;Sutin et, 2014)

## Weight Stigma in Healthcare

- UK studies: 88% reported weight-based stigma
  - 42% felt uncomfortable discussion weight w/their doctor
  - ONLY 26% reported being treated with dignity and respect by their doctor when seeking help for their weight
- Physicians are the second most common source of weight stigma!
- Physicians report lack of training and low confidence in nutrition knowledge, dedicating 2-3 minutes per visit to nutrition counseling
- Only ¼ of medical schools offer the recommended 25 hours of nutrition training
- Only 20% of physicians report meeting the recommended 5 a day fruit/veggie intake per day themselves
- Referral rates to dietitians very low, particularly among cardiologist

(Lee et al, 2016; Harkin et, 2018)

# Weight Stigma in Healthcare

- Healthcare professionals describe individuals living with obesity as
  - “lazy, noncompliant, lacking will-power, undisciplined...”
  - 69% of physicians, 46% nurses, 37% dietitians demonstrate weight bias
- Physicians report care of individuals with obesity as *less* worthwhile than individuals viewed as thinner

**LESS...**

Time with providers

Health education

Trust in providers

Access to health

**Worse health  
outcomes**



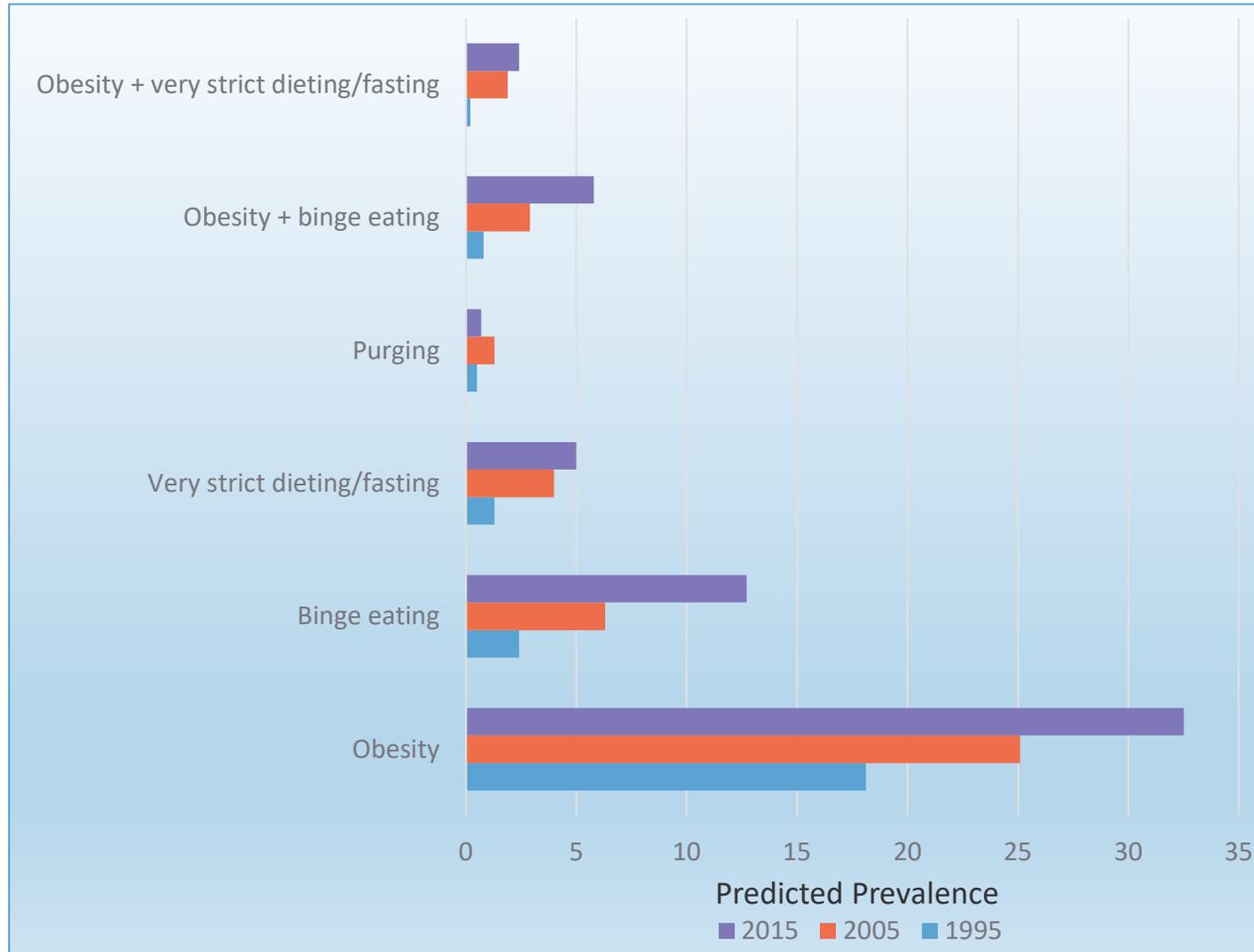
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## Consequences of Dieting & Self-Directed Weight Loss

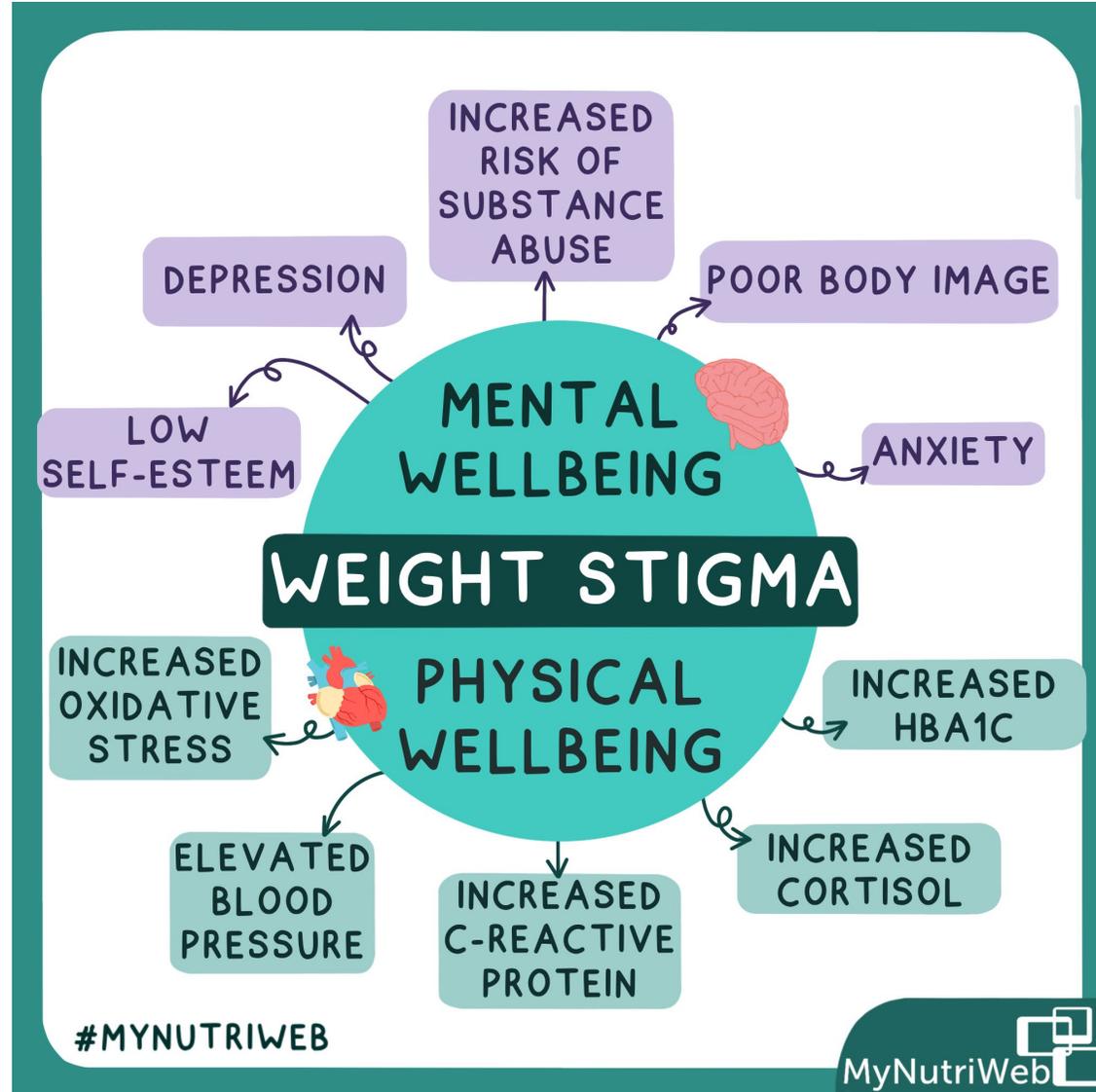
- Defined as change in food variety, amount or frequency – usually associated with decrease in caloric intake
- Numerous studies demonstrate association between attempted weight loss and future weight gain
- Restrictive eating is often followed by hyperphagia/overcompensation
- May result in short-term weight loss but often result in higher weight in the long-term and/or eating disorders
- Recognition of disordered eating, particularly anorexia nervosa, is often delayed or missed when co-occurring with overweight/obesity
  - 36% of adolescents treated for restrictive eating disorder were previously obese
- Disordered eating preceded by weight loss attempts is often self-directed as opposed to healthcare supervised

(Memon et al, 2020; Lebow et, 2015)

# Trends in Excessive Dieting & Disordered Eating



# Weight Stigma: Psychological and Physiological Harm





## Non-stigmatizing Approach

- Weight as a spectrum and not discrete categories
- Equal access to care along the entire spectrum
- Inclusive surroundings
  - Equipment
  - Signage/artwork



# Non-stigmatizing Approach

- Staff and provider education
  - Knowledge alone insufficient
  - Project Implicit:

<https://implicit.harvard.edu/implicit/index.jsp>



- Check weight ONLY when it impacts medical decision-making or when patient directed
- In children and adolescents, monitor overall growth trend and investigate when major deviation



# Non-stigmatizing Approach

- Universal approach asking about overall well-being: sleep, water intake, body movement, nutrition and stress reduction
- Screen for depression, anxiety and eating disorders using validated tools
- Counsel all patients regarding social media pitfalls and risks associated with dieting
- Refer to body positive social media and online resources
  - <https://centerfordiscovery.com/blog/body-image-disorder-social-media/>
  - <http://www.themilitantbaker.com/2017/04/diversify-your-instagram-feed.html>

# Emphasize Overall Wellbeing

- *“As your provider, I want to support you in any way possible to live long and do all the things you want to do. While there are many things we can’t control, we can talk about forms of self-care that might be beneficial to you. This typically includes sleep, water intake, body movement, nutrition, and stress reduction. What areas of self-care would you like to talk about today?”*



## When Patients Ask About Weight

- Shift focus from weight to well-being
  - *“Tell me what makes you concerned about weight.”*
  - *“Sounds like you are concerned about weight and the risk of developing diabetes. There are many factors that can increase risk of diabetes, some that we can control and some that we can’t. I am glad you are concerned about your health and want to prevent health problems like diabetes. Rather than talking about weight, can we talk about ways to reduce the risk of diabetes?”*
- Discuss why focusing on weight can be detrimental

# When Patients Ask About Weight

- Review 24 hour recall and discuss basic nutrition guidance
- If patients want additional guidance, consider referral to body positive dietitian
- Keep it real! Share your own challenges and solutions
- Re-emphasize well-being

# Dietary Guidelines from US Dept of Health & Human Services

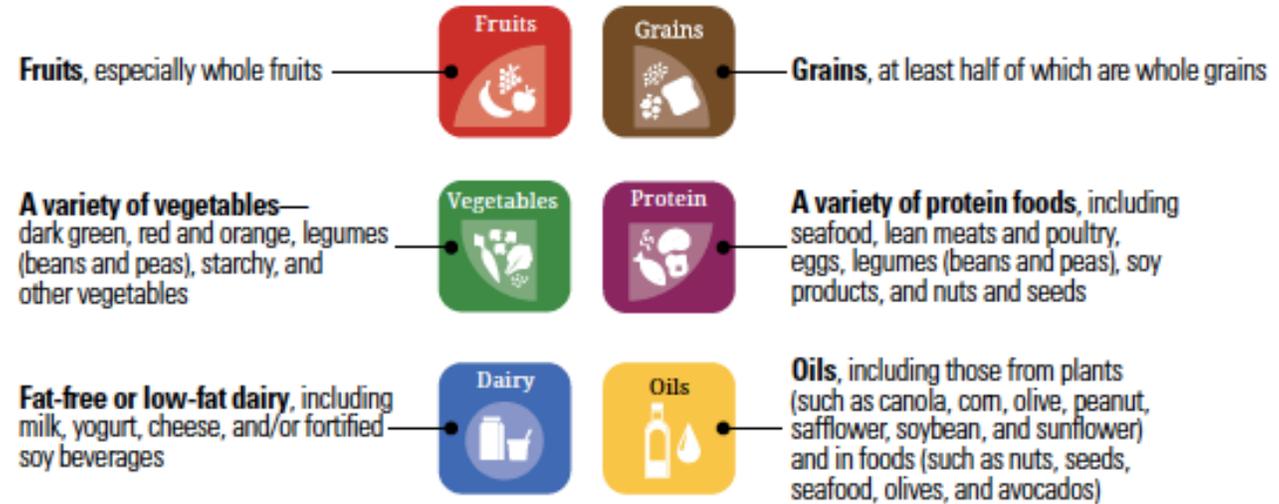


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## What's in a Healthy Eating Pattern?

The 2015–2020 Dietary Guidelines has basic recommendations for a healthy eating pattern.

It includes foods like:



And it has limits on:

**Saturated & trans fats**—limit saturated fats to less than 10% of daily calories and keep *trans* fat intake as low as possible

**Added sugars**—limit to less than 10% of daily calories



**Sodium**—limit to less than 2,300 mg a day (for adults and children 14 years and older)

**Alcohol**—limit to no more than 1 drink per day for women and no more than 2 per day for men

## General Important Nutrition Tips

- Family Meals
- Consistent eating throughout the day
- Variety of foods
- Avoid restricting any certain type of food
- No drastic changes
- Don't let perfection get in the way of good
- All food has benefit!
- Appreciate your body for all it can do!





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USE:

*Larger or smaller body*

*Elevated BMI*

*Elevated weight for  
height*

*Weight increasing  
faster than height*

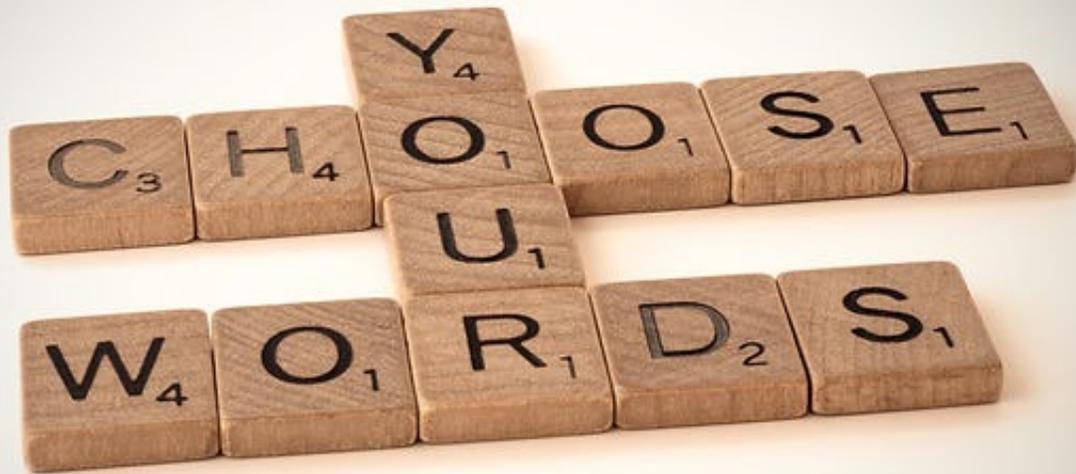
*Fat or fatness*

AVOID:

*Obesity*

*Morbid obesity*

*Adiposity*



*Especially in your electronic health record!*



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Questions?



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Thank you!

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