

# Nutrition Education

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# What Will You Learn Today?

- What is the state of our health as a nation
- “Always” vs “Sometimes” foods
- Reading a nutrition label
- Fad diets and why they do not work
- Identifying ED/DE



# Definitions

- Overweight/obesity: Weight that is higher than what is considered healthy for a given height
  - Childhood Obesity is defined as a body mass index (BMI) at or above the 95th percentile of the CDC sex-specific growth charts
- Body Mass Index: screening tool for overweight/obesity
  - A high BMI can indicate POTENTIAL unhealthy amounts of body fat

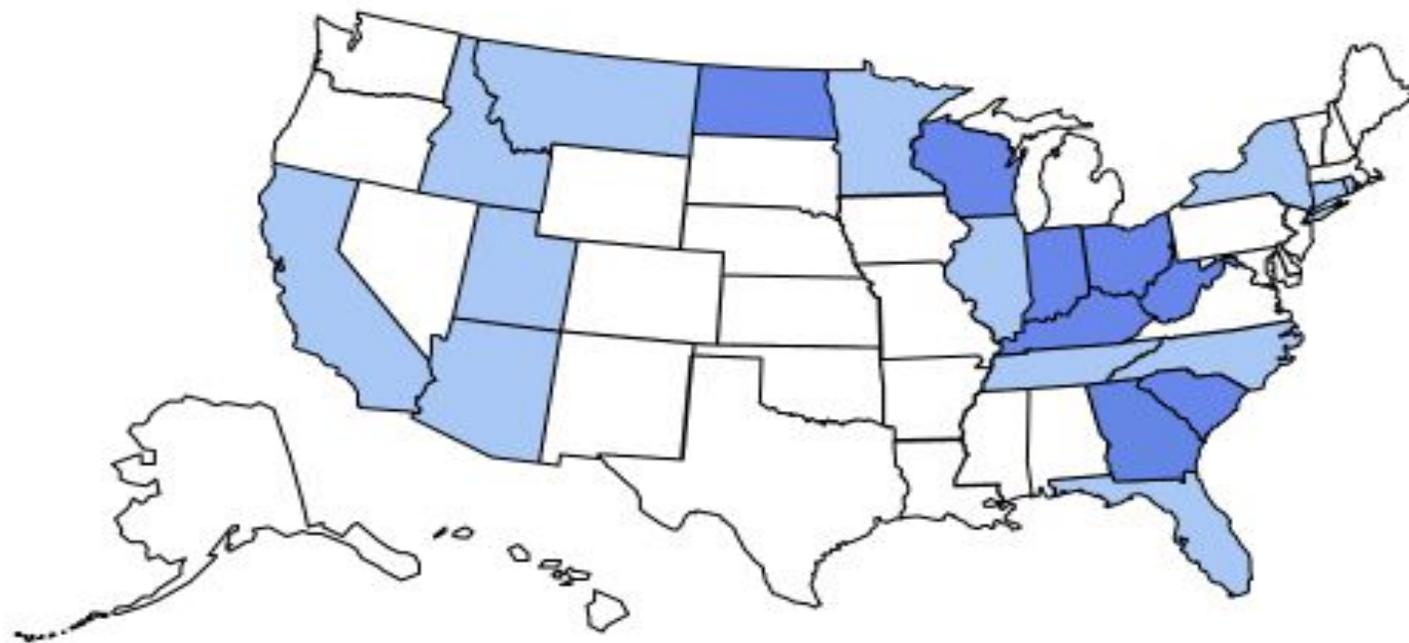
Body Mass Index (BMI)	Classification
Less than 18.5	Underweight
18.5 - 25	Healthy Weight
26-30	Overweight
Greater than 30	Obesity*
	* Will be further separated into subcategories

<https://www.cdc.gov/obesity/basics/adult-defining.html>

# Obesity Trends\* Among U.S. Adults

## BRFSS, 1985

(\*BMI  $\geq 30$ , or  $\sim 30$  lbs. overweight for 5' 4" person)



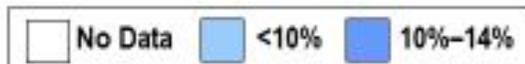
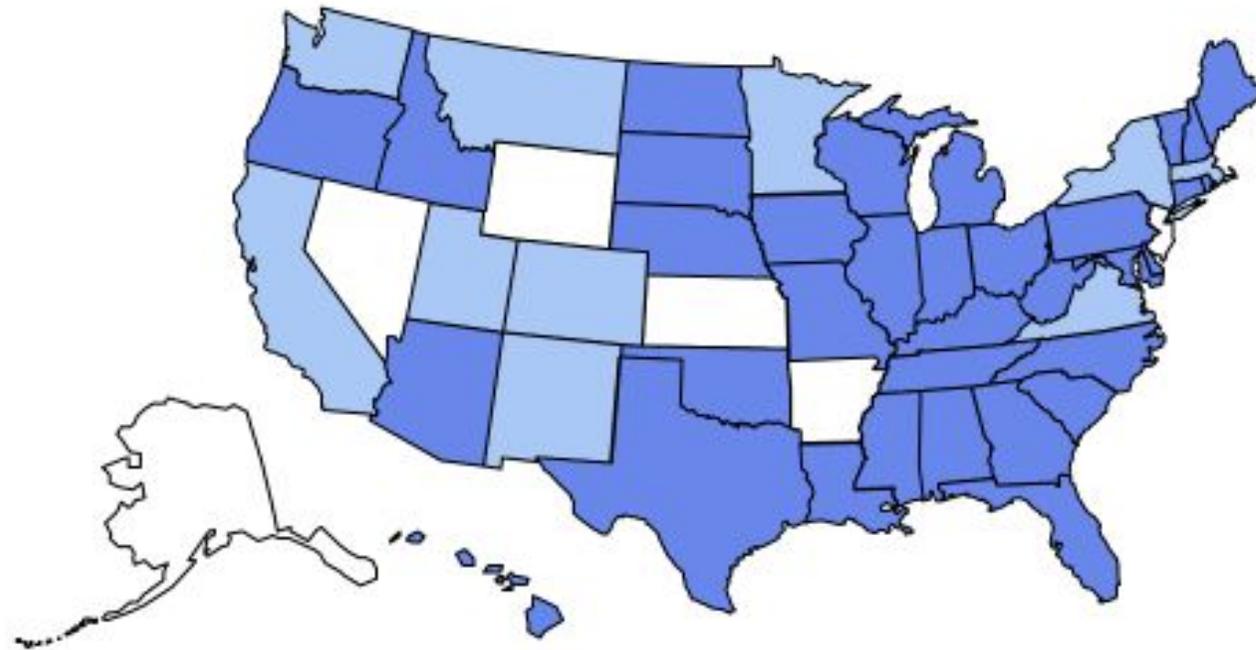
Source: Behavioral Risk Factor Surveillance System, CDC.





## Obesity Trends\* Among U.S. Adults BRFSS, 1990

(\*BMI  $\geq 30$ , or  $\sim 30$  lbs. overweight for 5' 4" person)



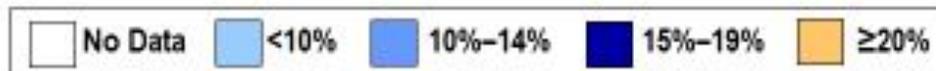
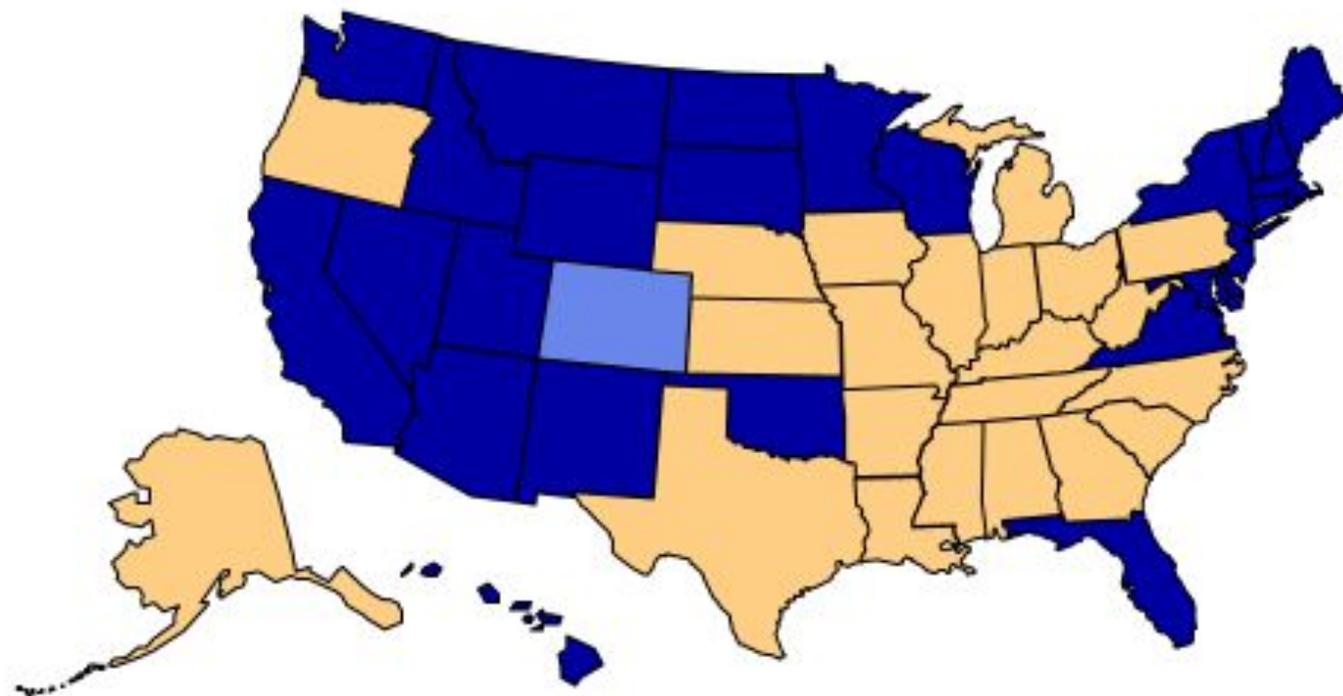
Source: Behavioral Risk Factor Surveillance System, CDC.





## Obesity Trends\* Among U.S. Adults BRFSS, 2000

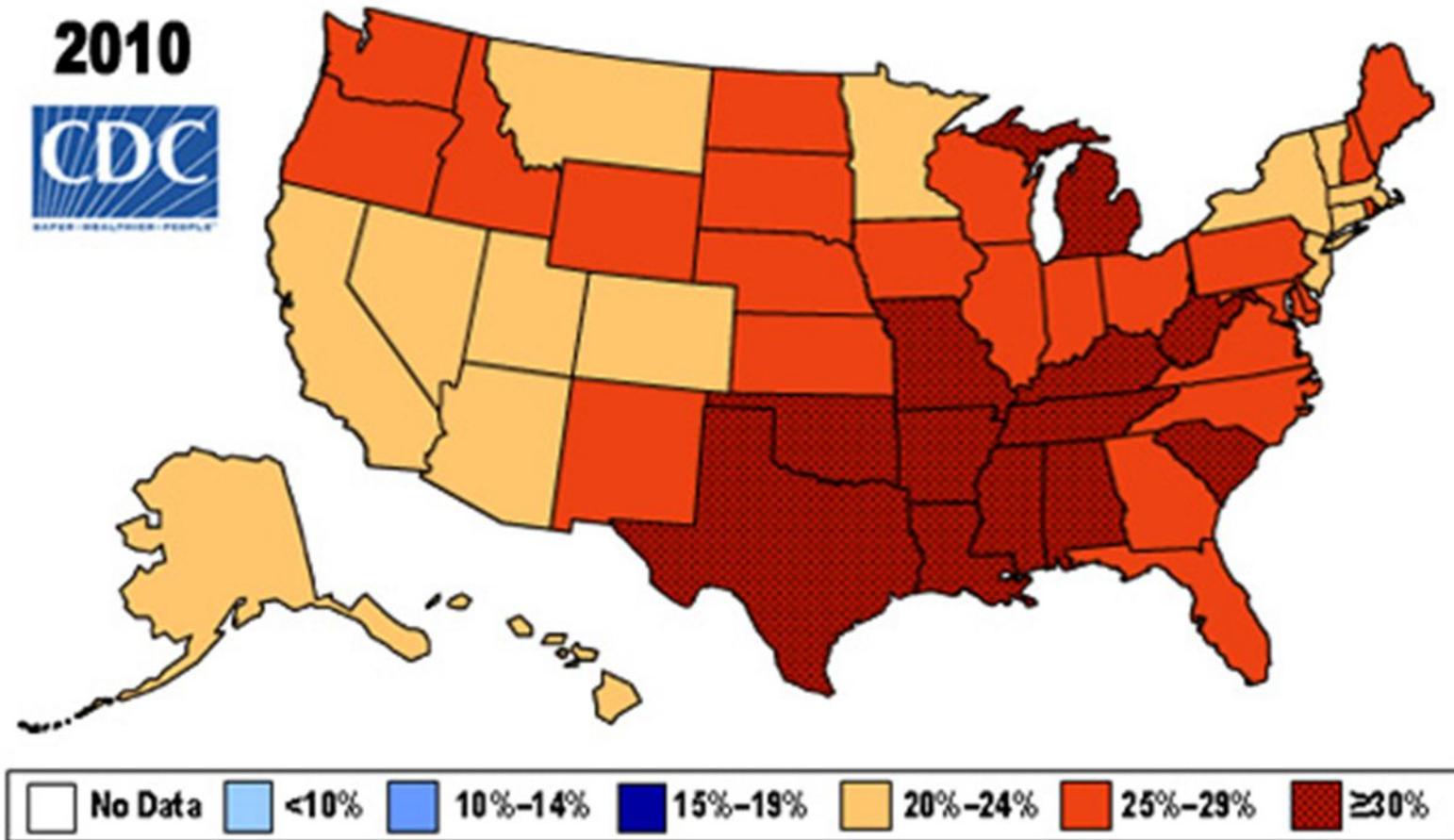
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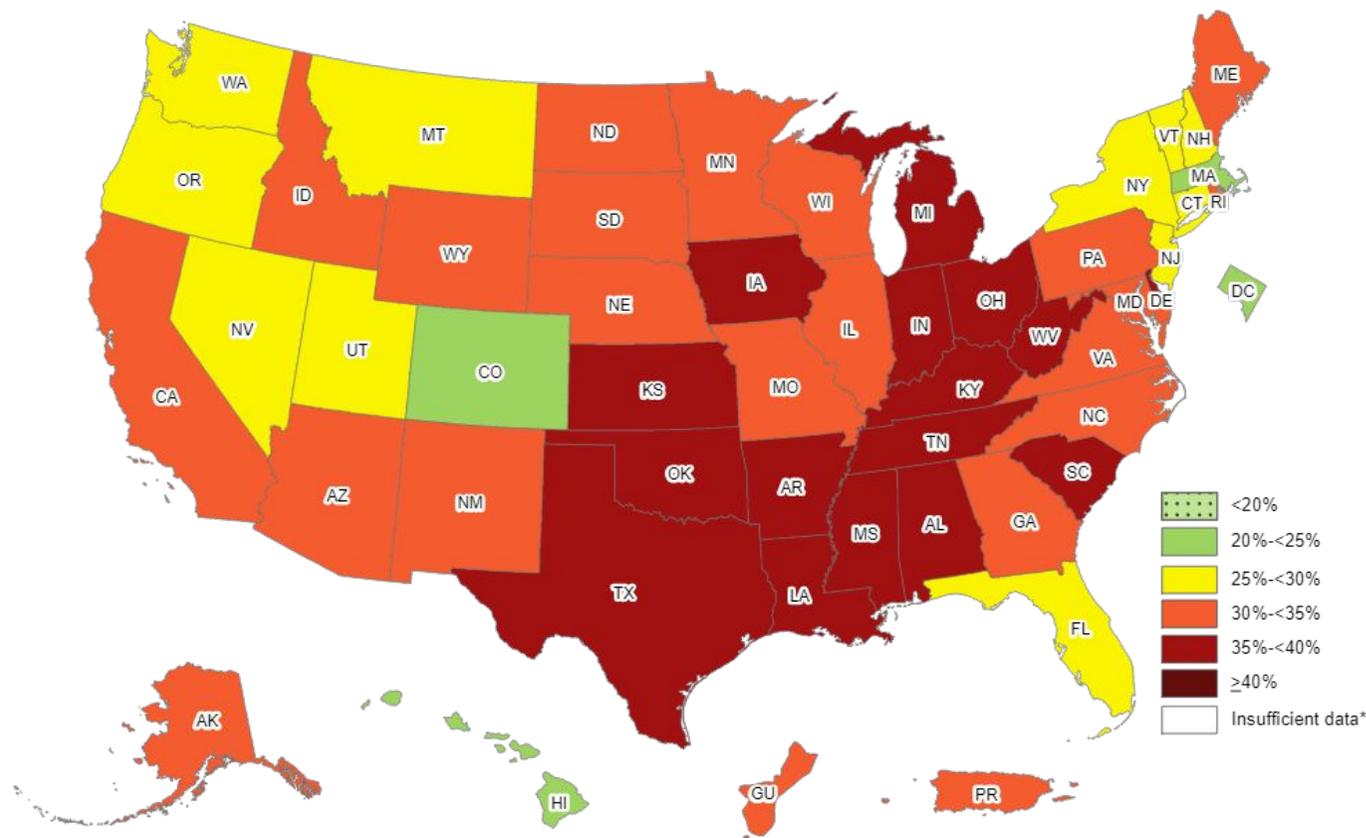
Source: Behavioral Risk Factor Surveillance System, CDC.



# Self-Reported Obesity in Adults- 2010



2020 Percent of Adult Obesity by State/Territory



31.5% of Pennsylvania's adult are obese

The estimated annual medical cost of obesity in the United States was \$147 billion in 2008.

Medical costs for people who had obesity was \$1,429 higher than medical costs for people with healthy weight.



## Childhood Obesity Statistics

- For children and adolescents aged 2-19 years in 2017-2018
  - The prevalence of obesity was 19.3%
  - Affected ~14.4 million children and adolescents
    - 13.4% among 2- to 5-year-olds
    - 20.3% among 6- to 11-year-olds
    - 21.2% among 12- to 19-year-olds
- Children with obesity are more likely to have type 2 diabetes, risk factors for heart disease such as high blood pressure and high cholesterol, muscle and joint problems, and fatty liver disease.
- A study of 432,302 children ages 2 to 19 years found the rate of body mass index (BMI) increase nearly doubled during the COVID-19 pandemic compared to a pre-pandemic period.
  - This faster increase was most pronounced in children with overweight or obesity and younger school-aged children.



# Why is our health status getting worse?

- Priorities
- Sedentary Lifestyle
- Reliance on calorie dense, nutrient deficient foods with incorrect portion sizes
- Poor sleep habits
- High stress
- Heavy media influence/advertising

# Portion Distortion

- Portion sizes continue to increase!

30 years ago



3 in diameter  
140 calories

Today



6 in diameter  
350 calories

# Portion Distortion

30 years ago



**500 calories**

**1 cup spaghetti with sauce  
and 3 small meatballs**

Today



**1,025 calories**

**2 cups of pasta with  
sauce and 3 large  
meatballs**



# Always vs Sometimes Foods

## “Always”

- Whole grains
- Fresh/Frozen Fruit
- Fresh/Frozen Vegetables
- Legumes
- Low-fat protein
- Low-fat dairy/dairy alternatives
- Water

## “Sometimes”

- Processed foods/snacks
- Sweetened/Calorie-containing beverages
- Sweets & Treats
- Fast Food

# How to build a Healthy Plate

## Daily Servings

Whole Grains: 5-6oz

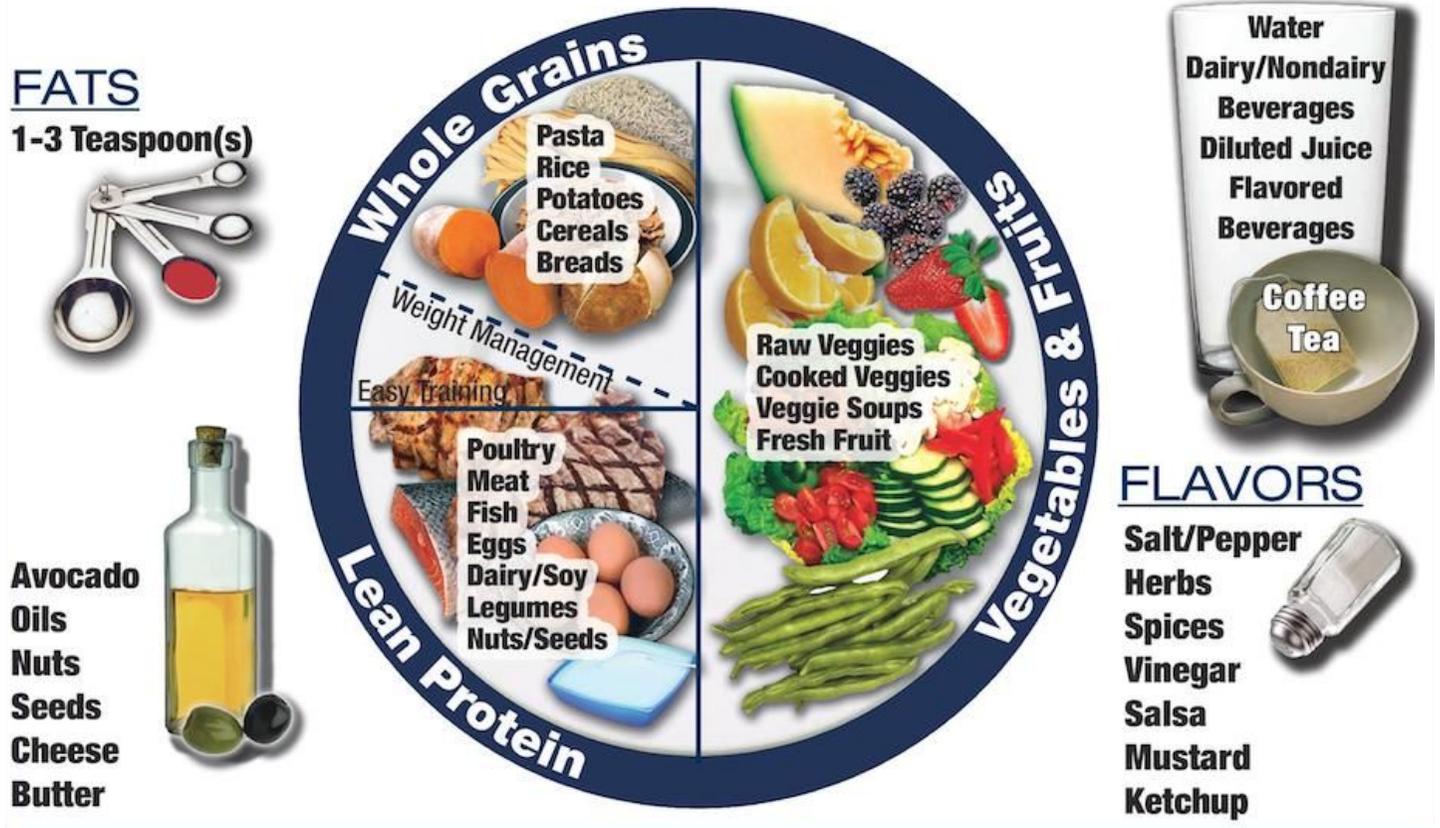
- ½ c brown rice, quinoa, barley, pasta etc
- 1 slice of whole grain bread
- 1 ½ c high-fiber cereal

Dairy (or plant-based alternative): 3 servings

Protein: 4-6oz

Fruit: 1 ½ - 2 cups

Vegetables: 2 ½ -3 cups



## New Label

### Nutrition Facts

8 servings per container  
**Serving size 2/3 cup (55g)**

**Amount per serving**  
**Calories 230**

**% Daily Value\***

**Total Fat** 8g **10%**

Saturated Fat 1g **5%**

*Trans* Fat 0g

**Cholesterol** 0mg **0%**

**Sodium** 160mg **7%**

**Total Carbohydrate** 37g **13%**

Dietary Fiber 4g **14%**

Total Sugars 12g

Includes 10g Added Sugars **20%**

**Protein** 3g

Vitamin D 2mcg 10%

Calcium 260mg 20%

Iron 8mg 45%

Potassium 240mg 6%

\* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

1

The serving size now appears in larger, bold font and some serving sizes have been updated.

2

Calories are now displayed in larger, bolder font.

3

Daily Values have been updated.

4

Added sugars, vitamin D, and potassium are now listed. Manufacturers must declare the amount in addition to percent Daily Value for vitamins and minerals.

## Healthy grocery Shopping

- Fresh is best
- Shop the perimeter as much as possible
- Go in with a plan (DON'T go in hungry)
- Read nutrition labels



# Fad Diets

- A fad diet is a way of eating that promises quick weight loss through what is usually an unhealthy and unbalanced method- does not teach long-term behavior change

## Is It a Fad Diet?

Bans a specific food or food group

Suggests that food can change your body chemistry

Suggests that there are “miracle” or “magic” foods or food combinations

No exercise needed

Advocates rapid weight loss

Recommends foods in bizarre quantities

Promotes strict menus



## Popular Fad Diets

- Atkins
- South Beach
- Weight Watchers
- NutriSystem
- Paleo
- Ketogenic
- Severe calorie restriction
- Vegetarian/Vegan/Plant-based
- Gluten Free
- Intermittent Fasting

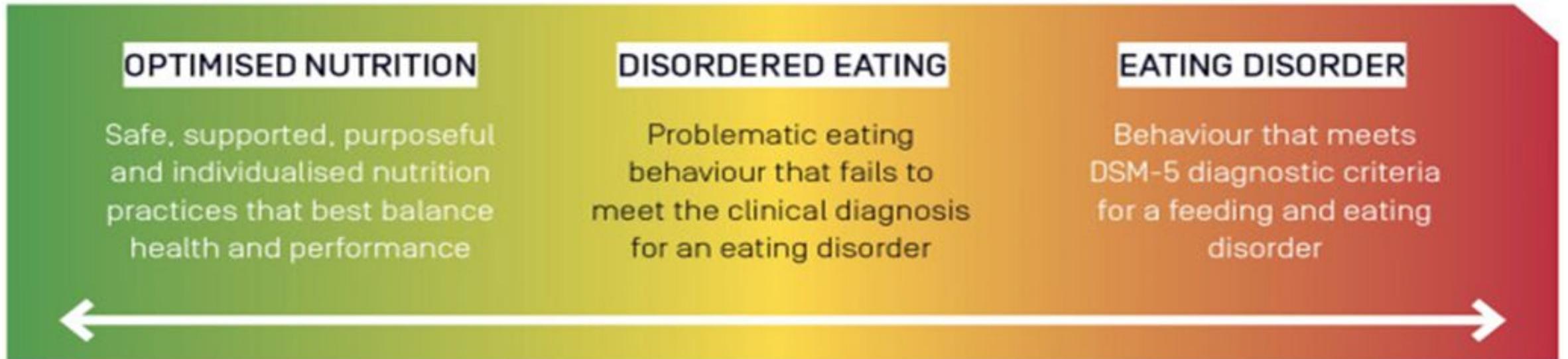


## Eating Disorders/Disordered Eating (ED/DE): statistics

- The best-known environmental contributor to the development of eating disorders is the sociocultural idealization of thinness.
- By age 6, girls especially start to express concerns about their own weight or shape. 40-60% of elementary school girls (ages 6-12) are concerned about their weight or about becoming too fat
  - Children of mothers who are overly concerned about their weight are at increased risk for modeling their unhealthy attitudes and behaviors.
- Males represent 25% of individuals with anorexia nervosa, and they are at a higher risk of dying, in part because they are often diagnosed later since many people assume males don't have eating disorders.
  - Subclinical eating disordered behaviors (including binge eating, purging, laxative abuse, and fasting for weight loss) are nearly as common among males as they are among females



## Spectrum of eating behaviour



The spectrum of eating behavior; DSM-5, Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition.



# Optimized Nutrition

Eating practices are meeting physical and mental health needs

Ability to adapt intake to meet the specific and changing demands of sport

Flexibility around eating and thoughts about food

Ability to eat socially

Free of restrictive behaviors such as the avoidance of whole food groups; excessive counting of calories or macronutrients; or rigidity around foods consumed

Healthy body image

<b>Eating Disorders</b>	<b>Disordered Eating</b>
<b>Restricting, bingeing or purging often occur multiple times per week</b>	Pathogenic behaviors used to control weight (eg, occasional restricting, use of diet pills, bingeing, purging or use of saunas or 'sweat runs') may occur but not with regularity
<b>Obsessions with thoughts of food and eating occur much of the time</b>	Thoughts of food and eating do not occupy most of the day
<b>Eating patterns and obsessions preclude normal functioning in life activities</b>	Functioning usually remains intact
<b>Preoccupation with 'healthy eating' leads to significant dietary restriction</b>	There may be preoccupation with 'healthy eating' or significant attention to caloric or nutritional parameters of most foods eaten but intake remains acceptable
<b>Excessive exercise beyond that recommended by coaches may be explicitly used as a frequent means of purging carbs</b>	While exercise may not be regularly used in excessive amount to purge calories, there may be a cognitive focus on burning calories when exercising



# Risk Factors:

## Biological

- Age
- Stages of growth, development or puberty
- Genetic risk factors, for example, EDs, addictions in family
- Precocious growth or development
- Growth or development that is significantly different from the average

## Psychological

- Body dissatisfaction, body image distortion
- Low self-esteem
- Personality traits, for example, perfectionism
- Obsessive-compulsive tendencies/traits
- Neuroticism (depression, anxiety, emotional lability)
- Harm avoidance
- Heightened stress reactivity
- Inflexible, rule-drive, drive for order and symmetry
- Risk-taking behavior



# Socio-cultural

- Eating pressures/modelling
- Peer pressure regarding physical appearance or weight
- Influence of the media
- ‘Thin ideal’, ‘muscularity ideal’ or ‘fit ideal’
- Direct or perceived pressure to modify appearance or weight
- Weight/appearance-based teasing, bullying
- Social Isolation
- Experiences of weight stigma, including in healthcare and within sporting environments



# Sport-specific

- Transition periods
  - Early start of sport-specific training
  - Making a senior team at a young age
  - Retirement (forced or voluntary)
  - Non-selection or de-selection
  - Injury, illness, surgery, time away from sport and training
- Changes in weight/body shape following injury/illness
- Pressures (perceived or real) to change body shape or composition
- Weight cycling
- Coaching behavior and accepted 'norms' within sport
- Rules and regulations in sports
- Performance optimization pressure
- Use of supplements, and nutritional and ergogenic aids
- Body composition testing, weighing and measuring
- Public displays of 'results' in common areas, for example, training environment; uniforms
- Media and social media pressure (perceived or real) to look a certain way



# Gender-based

- .Media-driven gender stereotypes
- .Drive for muscularity/leanness/thinness
- .Gender diversity

# Other

- Chronic disease related to caloric utilization, for example, diabetes, thyroid
- Co-occurring conditions, for example, celiac disease, other gastrointestinal conditions
- LGBTQI+
- History of trauma
- History of food insecurity
- Major life transitions, for example, moving away from home, moving between schools, moving overseas



# Warning Signs

## Behavioral changes

Wells, K. R., Jeacocke, N. A., Appaneal, R., Smith, H. D., Vlahovich, N., Burke, L. M., & Hughes, D. (2020). The Australian Institute of Sport (AIS) and National Eating Disorders Collaboration (NEDC) position statement on disordered eating in high performance sport. *British Journal of Sports Medicine*, 54(21), 1247–1258. <https://doi.org/10.1136/bjsports-2019-101813>

- **Preoccupation with food, calories, body shape and weight**
- **Polarized/dichotomous thinking (including but not limited to thoughts about food, body or exercise)**
- **Avoidance of food-related social activities**
- **Restrictive eating, for example, cutting down or cutting out food groups, nutrients, reducing overall energy intake, counting, measuring and weighing food**
- **Bathroom visits after meals**
- **Evidence of binge eating (large amounts of food purchased/consumed, evidence of food wrappers hidden in the bin or another location)**
- **Restriction followed by binge eating**
- **Secretive behavior regarding food intake and/or exercise behavior**
- **Increasing rigidity or inflexibility in situations**



# Warning Signs

## Physical changes

- **Wearing baggy or layered clothing that hides body shape**
- **Relentless, excessive exercise**
- **Exercise through injury/illness with inadequate recovery**
- **Bone stress injury**
- **Hormone dysfunction (including dysregulated menstrual cycle, libido and erectile function)**
- **Frequent illness**
- **Low body fat**
- **Dehydration**
- **Bad breath, sore gums or signs of enamel loss on teeth**
- **Swelling around jaw**
- **Skin effects, including dry skin, fine hairs growing around the face or signs of calluses on the knuckles**
- **Unexpected weight gain beyond that expected from growth/development/puberty**
- **Dramatic or rapid weight loss or gain or fluctuation**

# Warning Signs

## Psychological changes

- **Persistently poor and/or declining mental health**
- **Increased attention to and/or criticism of one's body**
- **Feeling out of control regarding food**
- **Body image dissatisfaction and distortion**



# If you feel your child is struggling..

01

Approach the subject with delicacy and expect pushback

- Use “I” statements- “I’ve noticed you haven’t been eating as much at dinner lately, are you feeling okay?”

02

Encourage a non-judgmental space for body image talk

- “I’ve struggled with body image even as an adult; having certain emotions around your body is totally normal and I’m here to help you navigate through those emotions”
- “Your body does not equal your worth”

03

Be proactive and ask for help

- The biggest predictor of successful ED/DE recovery is early treatment
- ED/DE treatment is a team effort- Dietitian, physician/pediatrician, psychologist or other mental health professional
- Depending on severity- endocrinology, gynecology, cardiology, gastroenterology

 Applebee's

Fiesta Lime Chicken



Quesadilla Burger without Sides





# Applebee's

## Fiesta Lime Chicken

1170 calories

14g saturated fat

175mg cholesterol

3740 mg sodium

8g sugar

## Quesadilla Burger without Sides

1331 calories

38g saturated fat

240mg cholesterol

3250mg sodium

7g sugar



McDonalds

Quarter Pounder with Cheese



Deluxe Crispy Chicken Sandwich





# McDonalds

## Quarter Pounder with Cheese

- 520 calories
- 12g saturated fat
- 1140mg sodium
- 95mg cholesterol
- 10g sugar

## Crispy Chicken Deluxe

- 530 calories
- 4g saturated fat
- 1050mg sodium
- 65mg cholesterol
- 10g sugar



# Red Robin

Whiskey-River BBQ Chicken Wrap



Southwest Salad





## Red Robin

### Whiskey-River BBQ Chicken Wrap

- 1030 calories
- 19g saturated fat
- 125mg cholesterol
- 2320mg sodium
- 14g sugar

### Southwest Salad

- 910 calories
- 19g saturated fat
- 175mg cholesterol
- 1850mg sodium
- 12g sugar



Questions?

Thank you!

Contact:

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