OBESITY MANAGEMENT
The Nuts & Bolts...and Springs & other Things.

DISCLOSURES
NONE

OBJECTIVES
1. Discuss current definitions, diagnostics and prevalence of Obesity.
2. Review recommended treatment components of Obesity management.
3. Increase knowledge of clinical Obesity care through case study reviews.

MY GOAL THROUGH THIS PRESENTATION IS TO SHARE HOPE WITH PROVIDERS ENCOUNTERING PATIENTS WITH OBESITY.

WHAT IS OBESITY?
• Obesity is a chronic, progressive, relapsing, multi-factorial, neurobehavioral disease, wherein an increase in body fat promotes disease, tissue dysfunction & abnormal fat mass, physical forces, resulting in adverse metabolic, biomechanical & psychosocial health & consequences (OMA, 2019).
• Obesity is abnormal or excessive fat accumulation that presents a risk to health (WHO, 2018).
• Obesity is a serious chronic disease with extensive & well-defined pathologies, including illness & death (TOS, 2018).
• Obesity was recognized by the American Medical Association (AMA) in 2013, but we are still fighting reimbursement.
• ABCD-Adiposity-Based Chronic Disease (AACE, 2017).
WHAT OBESITY IS NOT...

• Obesity is not a result of anything a person has done “wrong.”
• The related health consequences are not just “associated risk factors” or “co-morbid conditions.”
• Obesity treatment is not as simple as eat less and move more.

WHO IS AFFECTED?

Adults
- 650 million worldwide (2016)
- 33 million U.S. adults (2015-16)
- 2 in 3 (2013-14)
- 40% of the population

Children
- 340 million worldwide (2016)
- 1 in 6 (2013-14)
- 20% of the population

Men
- over 73% or 3/4
* 2.8 million people die annually

Women
- over 66% or 2/3
* $147 billion spent annually in the U.S.
HOW DO WE DIAGNOSE OBESITY?
BMI
Waist Circumference
Neck Circumference
Body Fat Composition

IT'S ABOUT SO MUCH MORE THAN BMI...

OBESITY CLASSIFICATION AND STAGING
Edmonton Obesity Staging System
- Stage 0 = no obesity related risk factors
- Stage 1 = preclinical risk factors (pre-HTN or pre-DM), minor aches/pains
- Stage 2 = presence of obesity related disease processes
- Stage 3 = organ damage (MI, CHF, CVA)
- Stage 4 = severe disabilities & limitations (WC, walker, scooter, bed bound)

"Normal" Weight 18.5-24.9
Overweight 25.0-29.9
Class I Obesity 30.0-34.9
Class II Obesity 35.0-39.9
Class III Obesity >=40

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OTHER OBESITY RELATED MEASUREMENTS
Waist Circumference
- Men >40 inches
- Women >35 inches

Neck Circumference
- >17 inches Men
- >16 inches Women

WAIST TO HEIGHT RATIO
- waist goal = <1/2 height

CONSEQUENCES OF OBESITY
Psychosocial
Cardiovascular
Renal

Endocrine
Cardiovascular
Respiratory

BENEFITS OF WEIGHT REDUCTION
Endocrine
- Arterial Dilatation
- Improved GH secretion

Cardiovascular
- Improved BP
- Improved cholesterol levels

Respiratory
- Reduction in the number of sleep apnea
- Management of COPD symptoms

HOW DO WE TREAT OBESITY?
The first step is to identify it.
THE SECOND STEP IS ASSESSMENT
History & Physical, diagnostics and contributing factors
It's about so much more than BMI…

THE 5 A’S OF OBESITY MANAGEMENT
A-ask: “Is it okay if we talk about your weight?”
A-assess: Diagnostics/contributing factors
A-advise: Benefits of weight reduction/options
A-agree: Realistic goals
A-arrange: Resources/referrals; FOLLOW UP

ASSESSMENT
• Medical History (diseases/conditions, surgeries, medications, allergies); family history
• Psychosocial History (anxiety, depression, major life events, PTSD)
• Weight history (weight last year, most comfortable weight, highest/lowest, time frame, inciting factors, previous attempts)
• Nutrition History (when, what, how much, why, who prepares)
• Physical activity history (how much, how often, what type)
• Sleep (how much, quality, sleep symptoms)
• Labs (CBC, CMP, TSH, A1c, insulin, lipids, vitamin D, B12, uric acid, UA, microalbumin)
• EKG
• Depression/Anxiety Screening
• Sleep Apnea Screening
• Weight inducing medications
• Advise (discuss benefits of weight reduction, options)
• Arrange for follow up

THE THIRD STEP IS BUILDING A TREATMENT PLAN
Every patient is different; therefore every treatment plan varies. There are no cookie cutter approaches to managing obesity.

GOAL:
1. IMPROVE HEALTH
2. IMPROVE QOL
3. IMPROVE BODY WEIGHT AND COMPOSITION

TREATMENT PLANNING INCLUDES...
• NUTRITION
• PHYSICAL ACTIVITY
• BEHAVIOR
• MEDICATION
• BARIATRICS

TREATMENT PARAMETERS TO CONSIDER
• BMI >/= 30 or >/= 27 + comorbidity
  Require high intensity lifestyle modifications
  May also require medications
• BMI >/= 40 or >/= 35 + comorbidity
  Require high intensity lifestyle modifications
  Referral to bariatric specialist
• Efficacy measured by % (4-5%) of total body weight loss over time (12-16 weeks; 3-4/6 months)
NUTRITION CONSIDERATIONS

• When do they eat?
• What do they eat?
• How much do they eat?
• Do they snack? If so, when & on what?
• Why do they eat?
• Where do they eat?
• Who does the shopping/food preparation?
• How much time between meals?
• Barriers (income, food availability, allergies, restrictions)

NUTRITION PLANNING

1. Meal Plans
   • LOW CARB MEAL PLANS (50-150gms/day)
   • MEDITERRANEAN STYLE EATING
   • LOW-FAT MEAL PLANS (10-20% cal from fat)
   • DASH EATING PLAN
   • VEGETARIAN STYLE EATING
   • VERY LOW CALORIE (<800 CAL/DAY)
   • KETOGENIC MEAL PLANS
2. Meal Replacements
3. Intermittent Fasting
4. Timing of Meals
5. Food Sequencing

NUTRITION

• All calories are NOT created equal (protein vs carbs vs fats).
• All fats are NOT created equal (saturated vs unsaturated).
• Nutrition is responsible for about 80%-90% of weight loss.
• Consider the patients nutrition history (Timing of 1st meal of the day, time between meals, who prepares meals, who shops, any dietary restrictions or other considerations).
• Calorie & carbohydrate restriction are key.
• An initial calorie reduction goal is about 500 calories per day (targeting carbs 1st).
• Food Journaling is also key to success.

PHYSICAL ACTIVITY (PA)

• Do they currently exercise?
• Are they physically able to exercise?
• What type of exercise do they currently perform? How much? How often?
• What do they like to do?
• Referral for PT evaluation/PHR
• Referral to personal trainer
• Other forms of PA (HEAT)
• Exercise RX
• NEW Guidelines
• FITT

PHYSICAL ACTIVITY

• PA is only responsible for about 10-20% of weight loss
• PA is responsible for about 80-90% of weight maintenance
• New guidelines:
  1. Goal is "move more, sit less."
  2. 10-minute increments are no longer suggested "starting point."
  3. Mixture is key (along with enjoyment factor)
  4. 150-300-minutes of moderate intensity/week
  5. 75-150-minutes of high intensity/week
  6. 2+ days of strength training

Adapted from Physical Activity Guidelines for Americans, 2nd edition. Available @ health.gov/PA Guidelines

*People typically underestimate their calories by 1/3.
PHYSICAL ACTIVITY

**Moderate Intensity Activities**
- Brisk Walk (4 mph)
- Heavy cleaning (mopping, window washing, vacuuming)
- Bicycling (10-12 mph)
- Lawn mowing

**High Intensity Activities**
- Hiking
- Jogging (6+ mph)
- Shoveling
- Bicycling (14-16 mph)
- Basketball game
- Soccer game

**STRENGTH TRAINING**
- Canned goods
- Bands
- Light weights
- Pilates
- Yoga
- Tai chi
- Barriers

**EXERCISE PRESCRIPTIONS**
- **F**-frequency: number of days per week
- **I**-intensity: light (casual walk), moderate (brisk walk), high (jogging/running)
- **T**-time: 5, 10, 20, 30, 45, 60 minutes or more
- **T**-type: aerobic (walk, run, bike, swim, etc.); strength (push-ups, lunges, weights, bands, balance)
- **E**-enjoyment: The best exercise is one they enjoy.

**WALKING IS A GREAT ACTIVITY**
- <5K steps per day = Sedentary
- 5K to 7.5K steps per day = low activity
- 7.5K to 10K steps per day = somewhat active
- >10K steps per day = active

- The Average U.S. adult gets <5K steps per day
- People overestimate their exercise by ~1/2

**PHYSICAL ACTIVITY 1ST STEPS**
1. Walk for 5-10 minutes every day.
2. Get up from your work space, home space or school space every hour and walk around.
3. Provide an Exercise Prescription.
4. Encourage increased NEAT activities (good posture, standing vs sitting, walk in place, fidgeting, cleaning, stair climbing & other ADLs)
5. Log your activity specifically (activity journal, pedometer, FitBit, or other smart watch, MyFitnessPal)
6. Schedule follow up.

**BEHAVIOR Readiness to Change**
BEHAVIOR
Are their behaviors affecting their health? Are they aware?
Are they ready to change their behavior(s)?
Barriers to change?

Stages of Change:
1) Pre-contemplation - unaware
2) Contemplation - considering
3) Preparation - planning
4) Action - doing it
5) Relapse - return to old habits

BEHAVIOR CHANGE INVOLVES…
• Self-monitoring (food & activity journaling)
• Stress management (relaxation, meditation, Yoga, Tai Chi, etc.)
• Stimulus control (replacing “feel good foods” with “feel good activities”)
• Social support (support group, workout buddy)
• Motivational Interviewing
• Goal Setting

SMART GOALS
Specific: What are some healthy eating or activity habits you can start doing?
Measurable: How will you track these habits? How often will you do these things?
Attainable: How confident are you about reaching this goal?
Relevant: Why are these things important to you?
Timely: When will you start?

*What are you able to do today?
*What are you willing to do today?

Adapted from AANP Let's Talk Weight & Your Well-Being Toolbox

IN ORDER FOR BEHAVIOR CHANGE TO OCCUR…
• Patient must be involved in the plan
• Shared partnership
• Referral to mental health may be necessary

*What are you able to change today?
*What are you willing to change today?

BEHAVIOR 1ST STEPS
1. Set First Goal(s)
2. What are you able to do to get there?
3. What are you willing to do to get there?
4. Track the Goals
5. Catch them doing something right and acknowledge it.
6. Provide take home information on Nutrition, Physical Activity & Medication options
7. Schedule follow up

MOTIVATIONAL INTERVIEWING
• Open-ended questions
• Affirmations
• Reflection (listening)
• Summary

BEHAVIOR CHANGE INVOLVES…

SMART GOALS
• Specific (specifically)
• Measurable (measurable)
• Attainable (attainable)
• Relevant (relevant)
• Timely (timely)
SUCCESSFUL WEIGHT MAINTAINERS…
• Eat breakfast daily (78%)
• Weight loss less than 10 hours of TV per week (32%)
• Exercise about 1 hour per week (90%)
• Burn about 2000 kcal/week in PA
• Maintain restricted calories (1300-1400/day)
• Perform self-monitoring (weight/calorie counting)
• Eat more frequently throughout the day (up to 5 times)

MEDICATIONS
Adjunct therapy...

MEDICATION CONSIDERATIONS
• Adjunct therapy for nutrition & physical activity.
• If response to medication is superior (5-10% weight loss in 12-16 weeks), continue meds indefinitely.
• If no response in 12-16 weeks, increase dose or change med. DO NOT GIVE UP ON THERAPY!
• Monitoring of response/tolerance is key. FOLLOW UP!
• Some experts recommend treating obesity first, so consider meds early.
• Therapy must be CONSISTENT. If there are breaks, start over.
• Obesity is a chronic disease. Chronic diseases require lifelong therapy.

OBESOGENIC MEDICATIONS
Cardiovascular
Beta Blockers ("lols")
Calcium Channel Blockers ("nifs")
Diabetes
Insulin
Sulfonylureas (Glimepiride, Glyburide, Glipizide)
TZDs/"glitazones" (Actos/Avandia)
Anti-Seizure
Carbamazepine/Tegretol
Gabapentin/Neurontin
Valproate/Depakote
Pregabalin/Lyrica

WEIGHT NEUTRAL ALTERNATIVES
Cardiovascular
ACEs
ARBs
Some BBs (carvedilol)
Diabetes
Metformin
GLP1 agonists (Victoza, Bydureon, Trulicity, Ozempic)
SGL2 inhibitors (Jardiance, Invokana, Januvia)
Anti-Seizure
Lamictal/lamotrigine
Topiramate/Topamax
Zonegran/zonisamide

Hormones
Glucocorticoids
Estrogens
Migraine
Dihydroergotamine
Paroxetine (Elavil)
Psychotropics
Antidepressants: Paxil, Celexa, Lexapro
Mood Stabilizers: Lithium, Depakote
Antipsychotics: Zyprexa/olanzapine, Risperdal/risperidone
WEIGHT NEUTRAL ALTERNATIVES

- **Hormones**
  - Testosterone

- **Migraine**
  - Topiramate

- **Psychotropics**
  - Anti-depressants: Zoloft, Effexor, Wellbutrin, Trintellix
  - Mood Stabilizers: Lamictal, Topiramate

FDA APPROVED ANTI-OBESITY MEDICATIONS

- **Liraglutide (Saxenda)**: increases feelings of fullness (satiety); decreases appetite; results in reduced intake
- **Naltrexone/Bupropion (Contrave)**: regulates appetite; reduces cravings
- **Phentermine**: appetite suppression; reduced intake
- **Phentermine/Topiramate (Qsymia)**: appetite suppression; reduced intake; increased satiety
- **Lorcaserin (Belviq)**: increases satiety; reduces intake
- **Orlistat (Xenical/Alli)**: reduces fat absorption

*Metformin... insulin resistance

MEDICATION CAUTIONS & CONTRAINDICATIONS

- EKG abnormalities (infarcts, ischemia, bundle branch blocks, QTc prolongation, PVC's, etc.)
- Uncontrolled HTN (Phentermine, Qsymia, Contrave, & Belviq)
- Allergies to any of the components
- Current anti-depressant therapy (Belviq & Contrave)
- Current opioid therapy (Contrave)

WHAT WORKS IN MY PRACTICE

**VISIT ONE...**

- Identify: BMI, waist circumference, neck circumference, height/waist ratio
- Ask: “Is it okay if we discuss your weight?” (as it relates to your health)
- Assess: interest in further discussion; labs/EKG
- Advise: Weight related health risk factors; presence of weight related health conditions; improvements in health with 5-10% reduction in weight; treatment options including nutrition (meal replacements), physical activity, & medications
- Agree: Some will want to know what they can do NOW. Agree on a few simple goals: 1) Start eating every 3 hours. 2) Photo journal all foods eaten. 3) Walk for 5 or 10 minutes per day.
- Arrange: Follow up in 1-2 weeks

**VISIT TWO...**

- Assess: Review labs/EKG, food journal; exercise log; PHQ9 for depression screening; GAD 7 for anxiety screening; Sleep apnea questionnaire
- Advise: Recommendations for lab/EKG issues; additional testing; meal replacements vs medications; eating frequency; food sequencing, calorie reduction/restriction, walking or other PA via Exercise Rx
- Agree: Initial goal setting to include nutrition and physical activity as well as a personal goal. Initial weight related goals planned in 5% & 10% increments in 3-month & 6-month intervals. Meal replacements &/or medications started
- Arrange: Referrals as necessary (cardiologist, mental health, dietitian, support group, PT, trainer, etc.); follow up in 1 week to 1 month based on treatment approach
- Tracking: 1st photos & measurements are taken
VISIT THREE...

- Assess: Additional testing results (sleep study); referral results; tolerance to therapies; goal progress
- Advise: Food journal & Physical Activity journal recommendations; symptom/side effect management
- Agree: Goal changes/additions; continuation of treatments
- Arrange: Follow up in 1 week or 1 month depending upon current therapy

FURTHER VISITS

- At least monthly for 3 months, some are every 2 weeks
- Weekly if on VLCD/Ketogenic Meal Replacements until goal weight is reached or plateau occurs. Coach visits with NP oversight.
- Labs and other necessary diagnostics are repeated at 3 months
- Advanced Tracking is performed again at 3 months with repeat pictures & measurements taken
- Follow up is key to long term success

CASE STUDIES

Putting the treatment plan into action

THANK YOU & PLEASE REMEMBER...HOPE IS A PIVOTAL COMPONENT IN CARING FOR PATIENTS AFFECTED BY OBESITY~ HOPE

QUESTIONS

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ADDITIONAL RESOURCES

- American Association of Nurse Practitioners (AANP): Introduction to Obesity Management in Primary Care
- AANP “Let’s Talk: Weight & Your Well-being” Toolbox/Flipchart
- American Association of Physician Assistants: Primary Care Obesity Management Certificate Program
- American College of Sports Medicine
- Diabetes Prevention Program
- Exercise & Medicine
- Obesity Medicine Association Certificate of Advanced Education
- The Obesity Society

REFERENCES


2) Centers for Disease Control - My Plate


REFERENCES CONTINUED...


