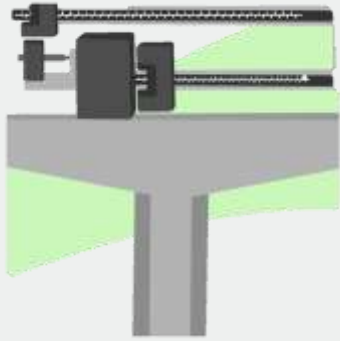


Elizabeth Taber, PharmD, March 2019



Health Problems of Obesity

- Cancer (breast, uterine, cervical, colon, esophageal, pancreatic, kidney, prostate)
- Heart problems (heart attack, stroke)
- Skin problems
- Endocrine disorders (Type 2 diabetes, high cholesterol, metaboblic syndrome)
- Female reproductive problems (abnormal menses, infertility, polycystic ovarian syndrome, pregnancy complications)
- Lung disease
- Joint/Bone pain
- Nonalcoholic fatty liver disease
- High blood pressure

Obesity is a chronic medical disease caused by increased energy intake compared to the amount of energy used by the body. It can occur through enlarged fat cells or an increased number of cells. Studies have shown a 60% obesity rate in patients with schizophrenia or bipolar disorder. Weight gain is not only caused by medications, but possibly mental illness itself as well.

How is it measured?

- Body mass index is commonly used to classify obesity by dividing weight (kg) by height squared (m²).
 - Overweight: BMI is 25.0 to <30
 - Obese: BMI is 30.0 or higher
- The measurement around the waist is also an indicator of obesity since weight around the stomach is associated with heart and endocrine problems, such as stroke and type 2 diabetes.
 - Obesity, in this sense, is defined as waist measurement >88 cm in women and >102 cm in men.

Medications that Affect Weight

Weight Loss		
Bupropion	Topiramate	Zonisamide
Minimal Affect		
Fluoxetine	Lamotrigine	Ziprasidone
Sertraline	Oxcarbazepine	Aripiprazole
Duloxetine		Haloperidol
Venlafaxine		Fluphenazine
Citalopram		Perphenazine
Escitalopram		Brexipiprazole
Vilazodone		Cariprazine
Vortioxetine		Lurasidone
Weight Gain		
Amitriptyline	Valproate	Clozapine
Nortriptyline	Carbamazepine	Olanzapine
Imipramine	Lithium	Quetiapine
Mirtazapine		Risperidone
Paroxetine		Thioridazine
		Chlorpromazine

What role do medications have?

- Sometimes, a loss of appetite is a symptom of mental illness. When medications are taken, appetite may improve which may cause weight gain.
- May cause craving for fatty and sweet foods
- May cause a slower metabolism
- Effect on the feeling of being full and satisfied with food

Key components of weight management:

- Diet
 - Weight loss occurs by using more calories or energy than caloric intake through the diet
 - Increase vegetable and protein portions and decrease carbohydrate (starch) and sugar portions
 - Avoid trendy crash diets that are not possible to continue over an extended period of time
- Exercise
 - Design an exercise plan focusing on the F.I.T.T. formula
 - Think about the frequency, intensity, time, and type of exercise that is possible and enjoyable
- Sleep
 - Poor and not enough sleep can slow the body's metabolism and increase appetite by increasing hormones in the body
- Medications
 - Communicate concern about weight gain with provider
 - Switch to an antipsychotic, antidepressant, or mood stabilizer that does not cause weight gain (with help of a provider)
 - Some studies suggest metformin can help prevent weight gain caused by antipsychotics
- Support
 - Consider the In SHAPE Fitness Plan (Self-Health Action Plan for Empowerment). Health mentors and patients made diet and exercise goals based on individual goals, motivation, and readiness for making changes in behavior and routine
 - Exercise activities included: classes at local gyms, walking, swimming, tai-chi, yoga, strength training, or cardiovascular training
 - Progress was assessed on a weekly basis; points and prizes were awarded for certain milestones
 - At the end of 9 months, patients had a reduction in waist circumference, greater fitness satisfaction, mental health function, and a decrease in negative symptoms
 - Takeaway: Team up with a fitness trainer or friend to help establish goals and a plan, make exercise more sociable and enjoyable, assess progress, and celebrate success.

Goals for exercise (FITT)

- **Frequency:** 3 to 5 times throughout the week
- **Intensity:** To increase exercise tolerability, exercise must occur within a target heart rate range
- **Time:** It is okay to start small, and increase over time to a total exercise time of 150 minutes per week
- **Type:** Make sure exercises correspond to goals and interests, try a variety of activities, and work different muscles



Go online to find more information about weight gain and to view the references for this toolkit.

cpnp.org/374420

Important Disclosure: This information is being provided as a community outreach effort of the College of Psychiatric and Neurologic Pharmacists. This information is for educational and informational purposes only and is not medical advice. This information contains a summary of important points and is not an exhaustive review of information about the topic. Always seek the advice of a physician or other qualified medical professional with any questions you may have regarding medications or medical conditions. Never delay seeking professional medical advice or disregard medical professional advice as a result of any information provided herein. The College of Psychiatric and Neurologic Pharmacists disclaims any and all liability alleged as a result of the information provided herein.