

What We Know About Obesity in 2023

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Defining Obesity

Obesity is a chronic disease in which excess weight/adipose tissue results in adverse metabolic and biomechanical outcomes.

Body Mass Index: Increased Body Fat (Adiposity)

Body mass index (BMI) in kilograms per meters squared (kg/m²)*

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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*Different BMI cut-off points may be more appropriate based upon gender, race, ethnicity, and menopausal status. For example, among Asians, a BMI ≥23 kg/m² may be a more appropriate cut-off point to define overweight and to screen for type 2 diabetes mellitus. Among postmenopausal women, BMI may underestimate percent body fat.

Percent Body Fat (%BF)

American Council on Exercise Classification: Percent body fat*

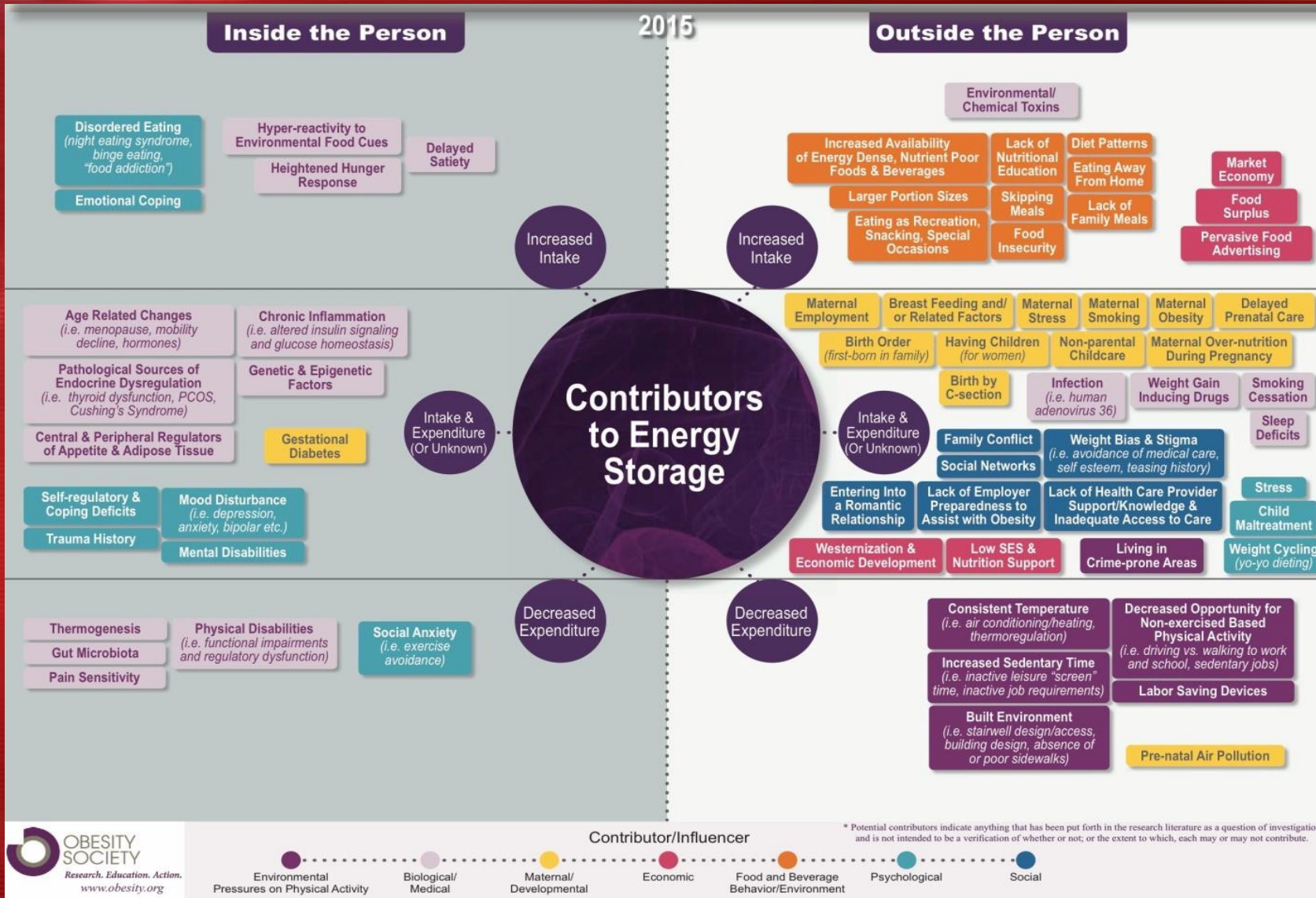
Essential Fat Women: 10-13% Men: 2-5%	Athletes Women: 14-20% Men: 6-13%	Fitness Women: 21-24% Men: 14-17%	Acceptable Women: 25-31% Men: 18-24%	Obesity Women: ≥ 32% Men: ≥ 25%
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*Based on "expert opinion;" cut-off points not scientifically validated

Obesity Bias and Stigma

- People with obesity are less likely to:
 - See a physician
 - Have routine medical screenings
 - Form close relationships with their providers

- What are we doing to improve this



Obesity as a Disease

- Recognizing and approaching obesity as a disease may help reduce stigma and bias
 - It is not about fault
 - It is not a function of laziness or lack of willpower
- May help improve access to necessary care/services
 - Dietitians
 - Mental health services
 - Medications

Medical Complications of Obesity

Pulmonary disease

abnormal function
obstructive sleep apnea
hypoventilation syndrome

Nonalcoholic fatty liver disease

steatosis
steatohepatitis
cirrhosis

Gall bladder disease

Gynecologic abnormalities

abnormal menses
infertility
polycystic ovarian syndrome

Osteoarthritis

Skin

Gout

Idiopathic intracranial hypertension

Stroke

Cataracts

Coronary heart disease

Diabetes

Dyslipidemia

Hypertension

Severe pancreatitis

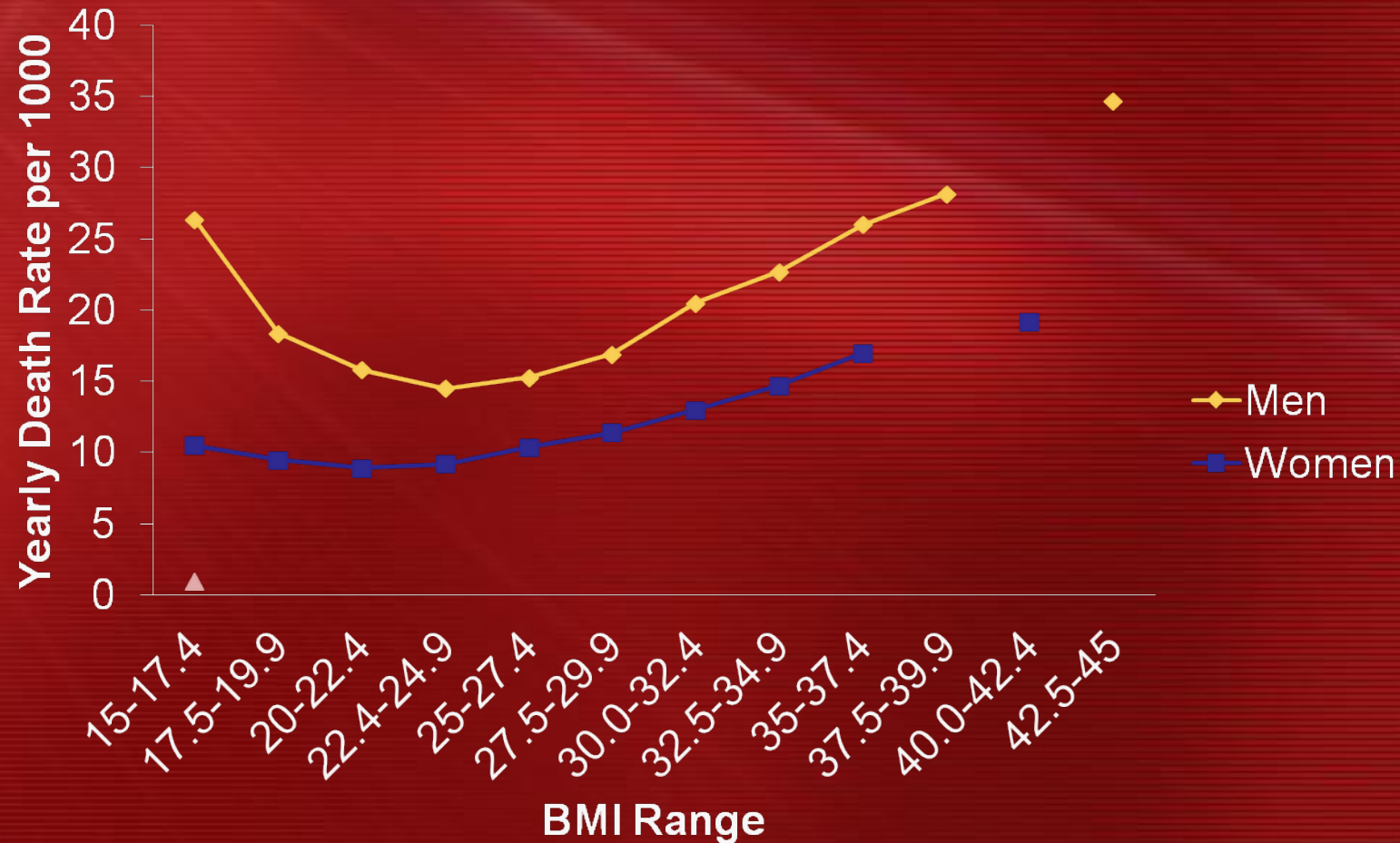
Cancer

breast, uterus, cervix
colon, esophagus, pancreas, liver
kidney, prostate

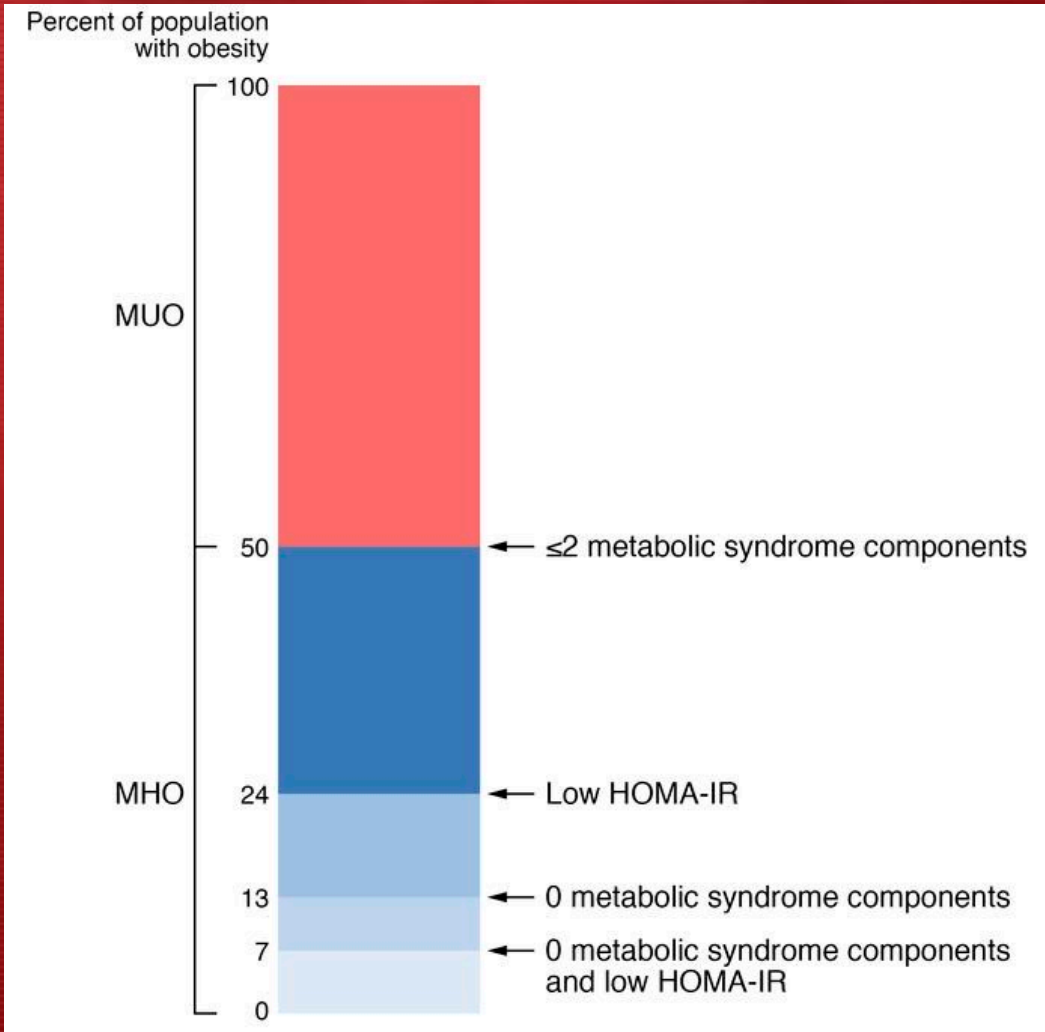
Phlebitis

venous stasis

All Cause Mortality and BMI



Metabolically Healthy vs Unhealthy Obesity



Metabolic Syndrome components:

- Hypertension
- Low HDL cholesterol
- Elevated triglycerides
- Elevated fasting glucose
- High waist circumference

From a variety of studies 30% to 50% of people with MHO convert to MUO after 4 to 20 years of follow-up

Health Benefits of Weight Loss

- Significant reductions in blood pressure with 5% weight loss; reduced risk of heart attack or stroke with 7.5-10% weight loss
- 5-7% weight loss can prevent or delay development of diabetes
- Significant improvement in pain/disability due to knee OA with 5% weight loss
- 47% reduction in urinary incontinence episodes with 8% weight loss
- Significant reductions in cancer risk with 5-10 lb weight loss

Key Concepts in the Management of Obesity

No one approach is the best for every individual

Weight loss requires an energy/calorie deficit

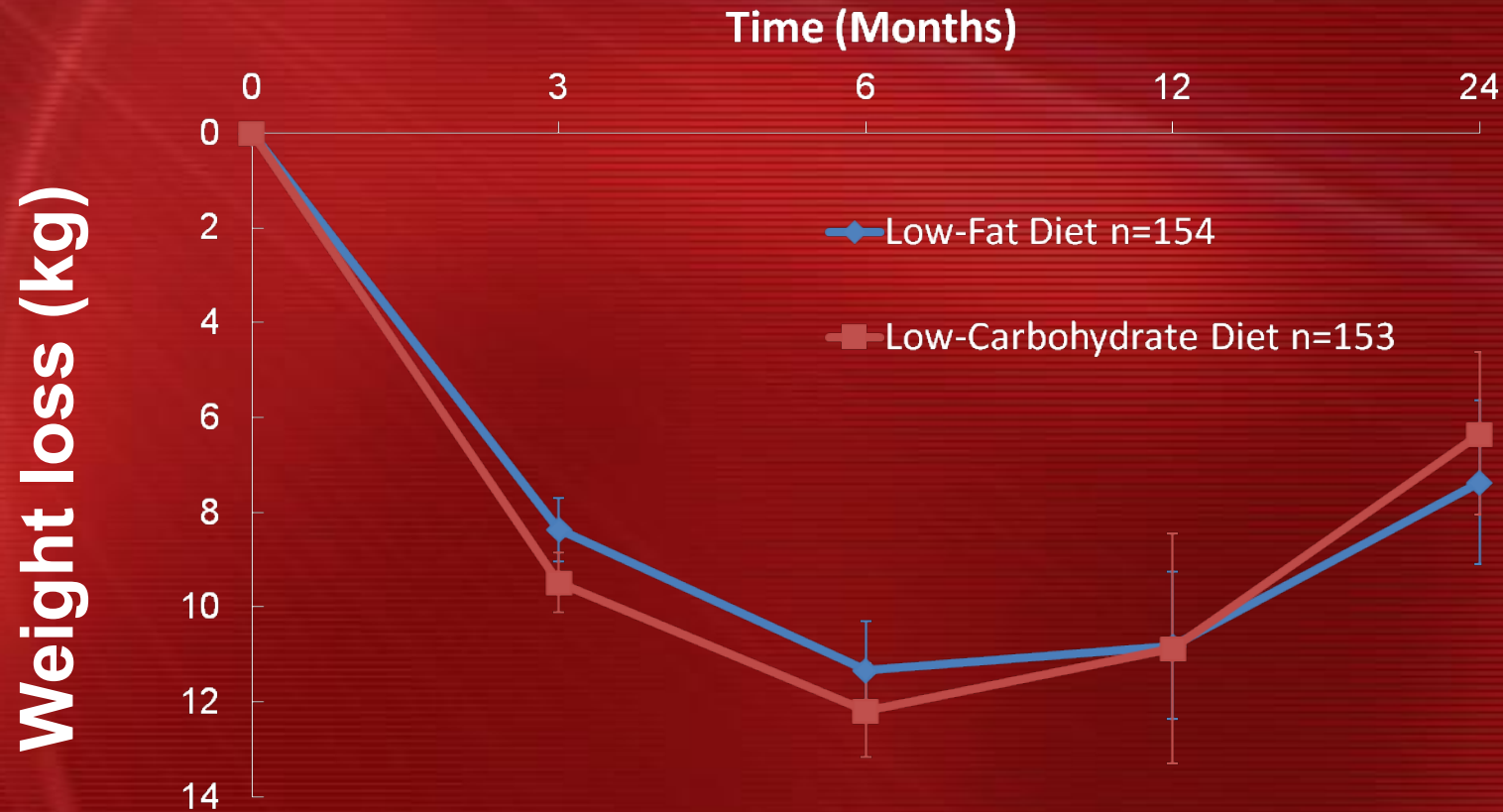
- This may be prescribed (think of points in Weight Watchers) or realized (Atkins, time-restricted eating)
- Macronutrient composition is less important

Different meanings of the word diet:

- The kinds of food that a person habitually eats
- A special course of food to which one restricts oneself (either to lose weight or for medical reasons.)

Exercise plays a small, but significant role in weight loss; it is very important for long-term maintenance

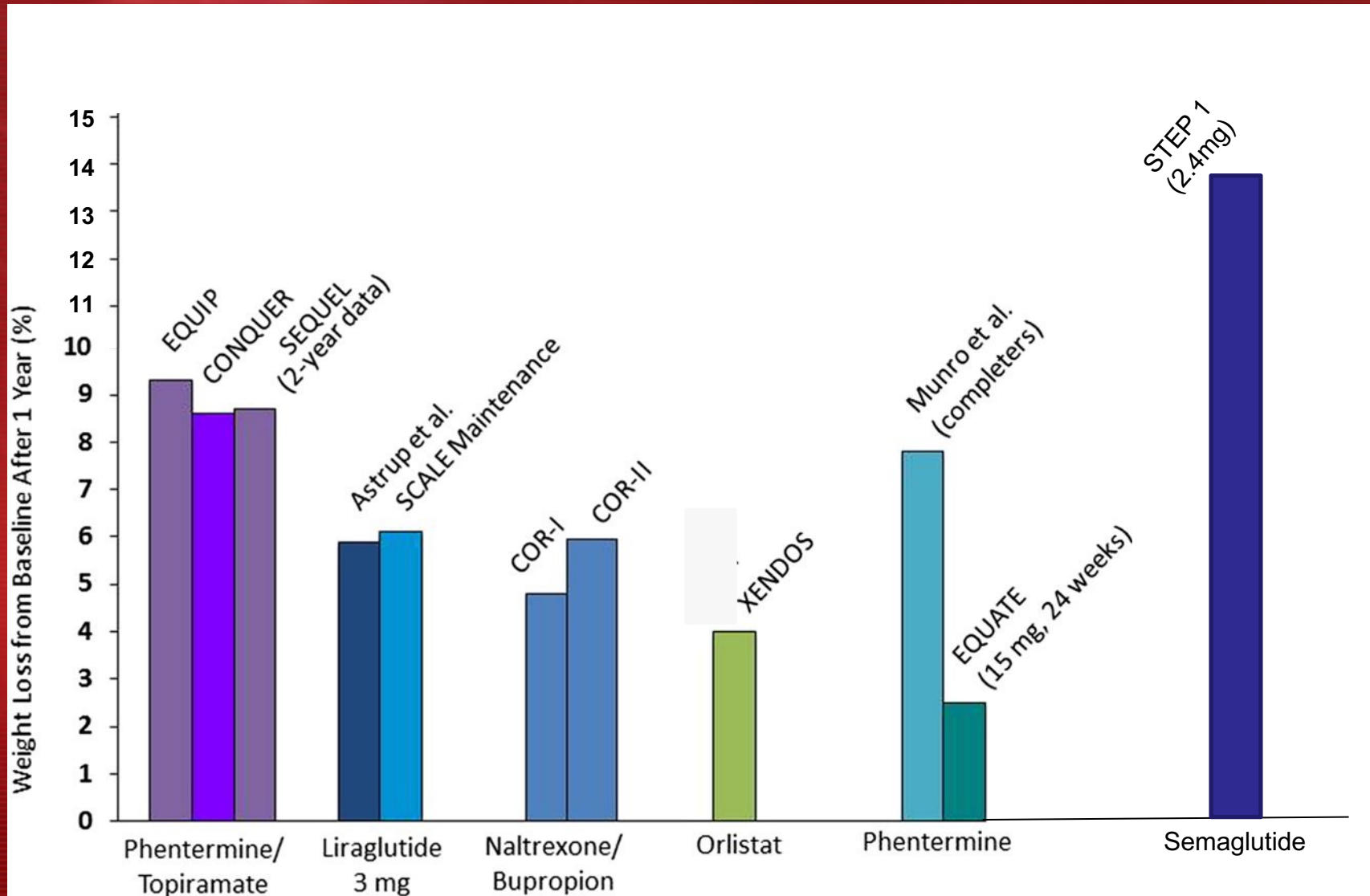
Low-Fat vs Low-Carbohydrate: Weight Loss at 24 months



FDA Approval of Weight Loss Medications

- Phentermine, Diethylpropion -- 1959
 - Fenfluramine, Benzphetamine -- 1973
 - Phendimetrazine -- 1976
 - Dexfenfluramine (Redux™) – 1996
 - Sibutramine (Meridia™) -- 1997
 - Orlistat (Xenical™, Alli™)– 1999
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- Phentermine/Topiramate ER (Qsymia™) – 2012
 - Lorcaserin (Belviq™) – 2012
 - Bupropion + Naltrexone (Contrave™) – 2014
 - Liraglutide (Saxenda™) – 2014
 - Semaglutide (Wegovy) -- 2021

Comparative efficacy medications



Considerations for Media

Be aware of and work to reduce obesity stigma and bias

Avoid promoting single plans, diets/dietary plans as the best, latest and greatest

Be wary of promoting diets, supplements, medications which are not evidence based

All of these diets are effective if a reduction in caloric intake is achieved:

- European Association for the Study of Diabetes Guidelines
- High-protein (25% protein/30% fat/ 45% carb) with food provided
- Higher –protein Zone-type (30% protein/30% fat/ 40% carb)
- Lacto-ovo vegetarian
- Low-calorie with prescribed calorie restriction
- Low carb (initially <20g/day)
- Vegan-style low-fat (10-25% calories from fat)
- Low-fat (20%)
- Lower fat (<30%) high dairy (4 servings/day) diets with or without increased fiber, and with or without low-glycemic-index/load foods
- Macronutrient targeted (15 or 25% protein, 20-40% fat, 35/45/55/65% carb)
- Mediterranean
- Moderate –protein (12% protein, 30% fat, 58% carb)
- High-glycemic load or low-glycemic load – with prescribed energy deficit
- AHA step 1-style (1500-1800 cal/day, <30% total cal from fat, <10% from sat fat)