



Depression, anxiety, and obesity

5As Team Learning modules

Depression and anxiety are two prevalent mood disorders that affect Canadians, with as many as 40-70% of overweight/obese individuals at high risk of depression. When consulting and treating patients with obesity, it is important to take a holistic approach using a biological, psychological and social evaluation of their health. Obesity is a chronic condition that encompasses a variety of causes and complications, and mental illness is unique in that it has potential to be **both** a cause and a complication. As a primary care health practitioner, it is important to learn to recognize your patients' risk factors for depression and anxiety disorders. Understanding how these conditions are linked to obesity will go a long way when tailoring your treatment and management plan for each individual patient.

Dr. Brian Stonehocker is an assistant clinical professor and residency program director in the University of Alberta Department of Psychiatry. As a practicing psychiatrist and consultant to the Alberta Health Services' Weight Wise program, Dr. Stonehocker has worked on several projects looking at the relationship between mental health and obesity. His primary area of expertise is in consultation liaison psychiatry, the branch of psychiatry that specializes in the interface between medicine and psychiatry.

This module contains:

- A link to the video on depression, anxiety, and obesity
 - <https://www.youtube.com/watch?v=-2KlrJAssMM>
- A PowerPoint presentation (page 2-32) that covers the following topics:
 - The aetiology and determinants of obesity
 - Medical complications of obesity
 - Mental health as a cause of obesity and barrier to effective management
 - Obesity as a risk factor for depression and anxiety disordersThe role of antidepressant therapy in weight gain
- A discussion guide for further reflection (page 33)

Mood and Food

Dr. Brian Stonehocker

University of Alberta

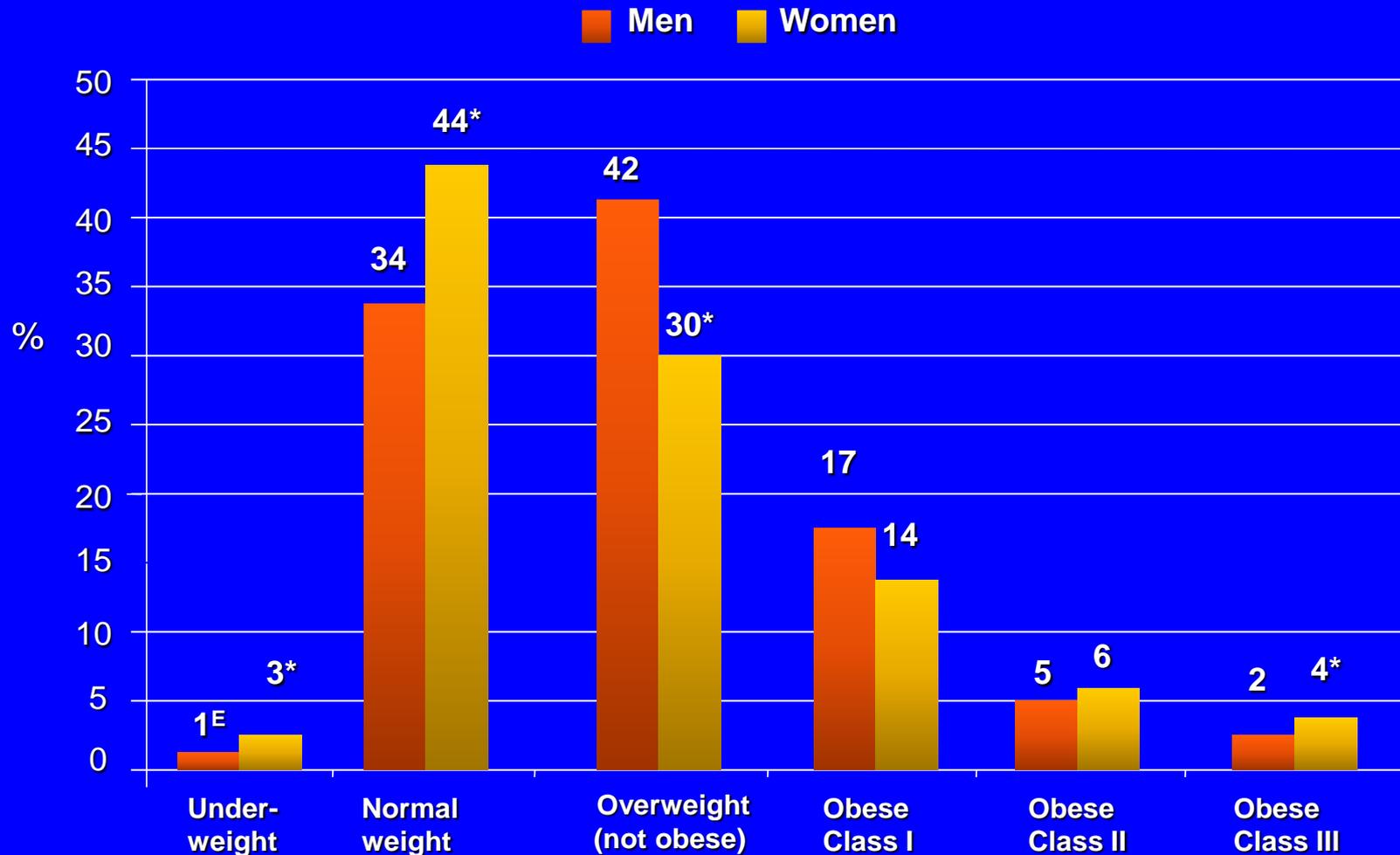
Department of Psychiatry

Alberta Health Services Weight Wise



www.obesitynetwork.ca

Weight Distribution in the Canadian Population



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

Accelerated Atherosclerosis

Coronary Heart Disease

Diabetes

Dyslipidemia

Hypertension

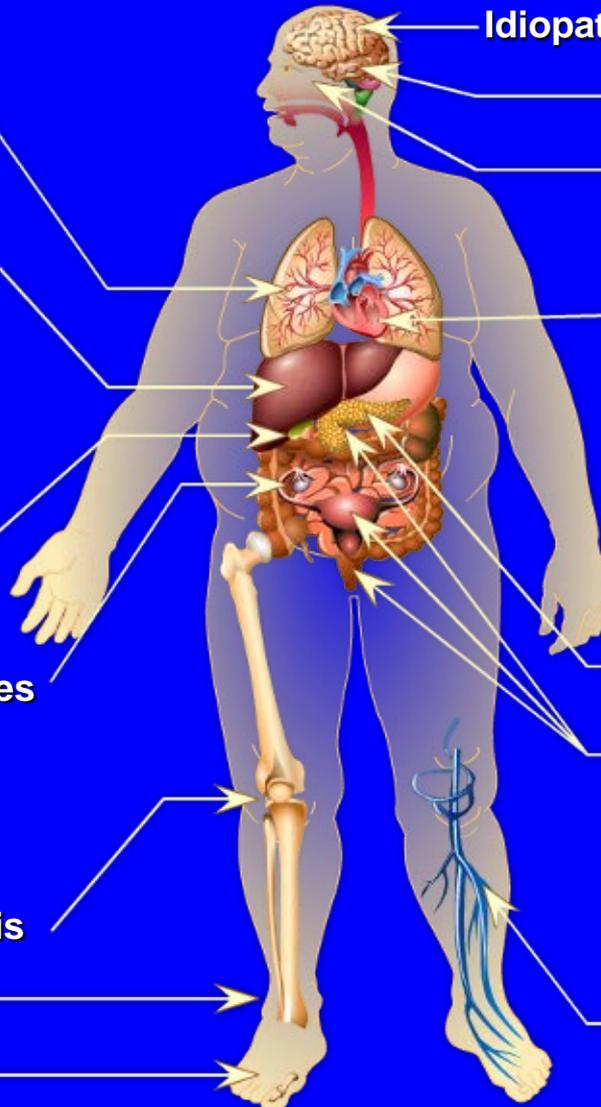
Severe Pancreatitis

Cancer

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

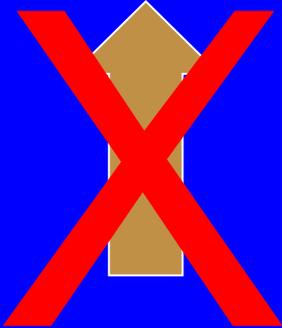
Phlebitis

venous stasis

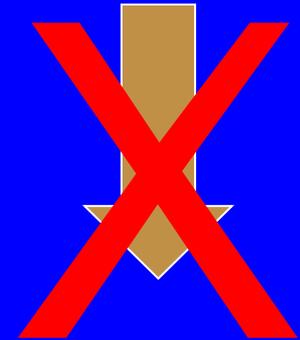


Edema = Positive Fluid Balance



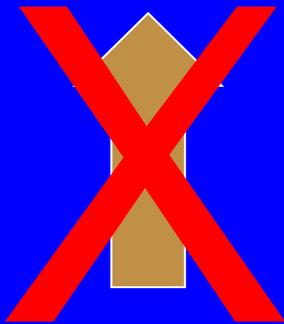


Fluid In

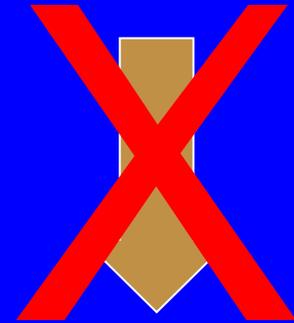


Fluid Out





Energy In



Energy Out



Diabetes

Cardiovascular
Disease

HTN

Osteoarthritis

Sleep Apnea



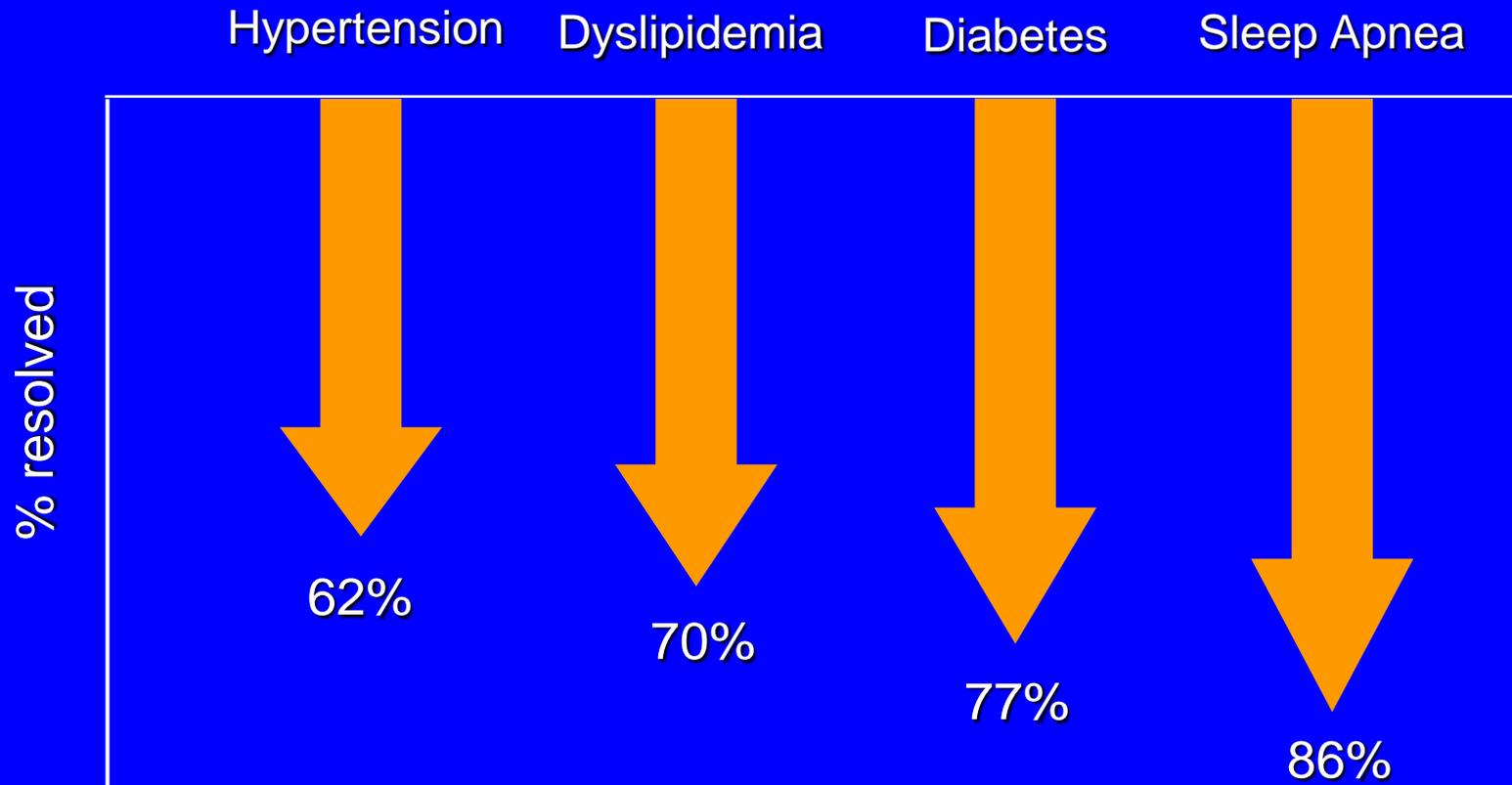
Obesity





Bariatric Surgery: Effect on Cardiovascular Risk

A Systematic Review and Meta-Analysis of 22,090 Patients

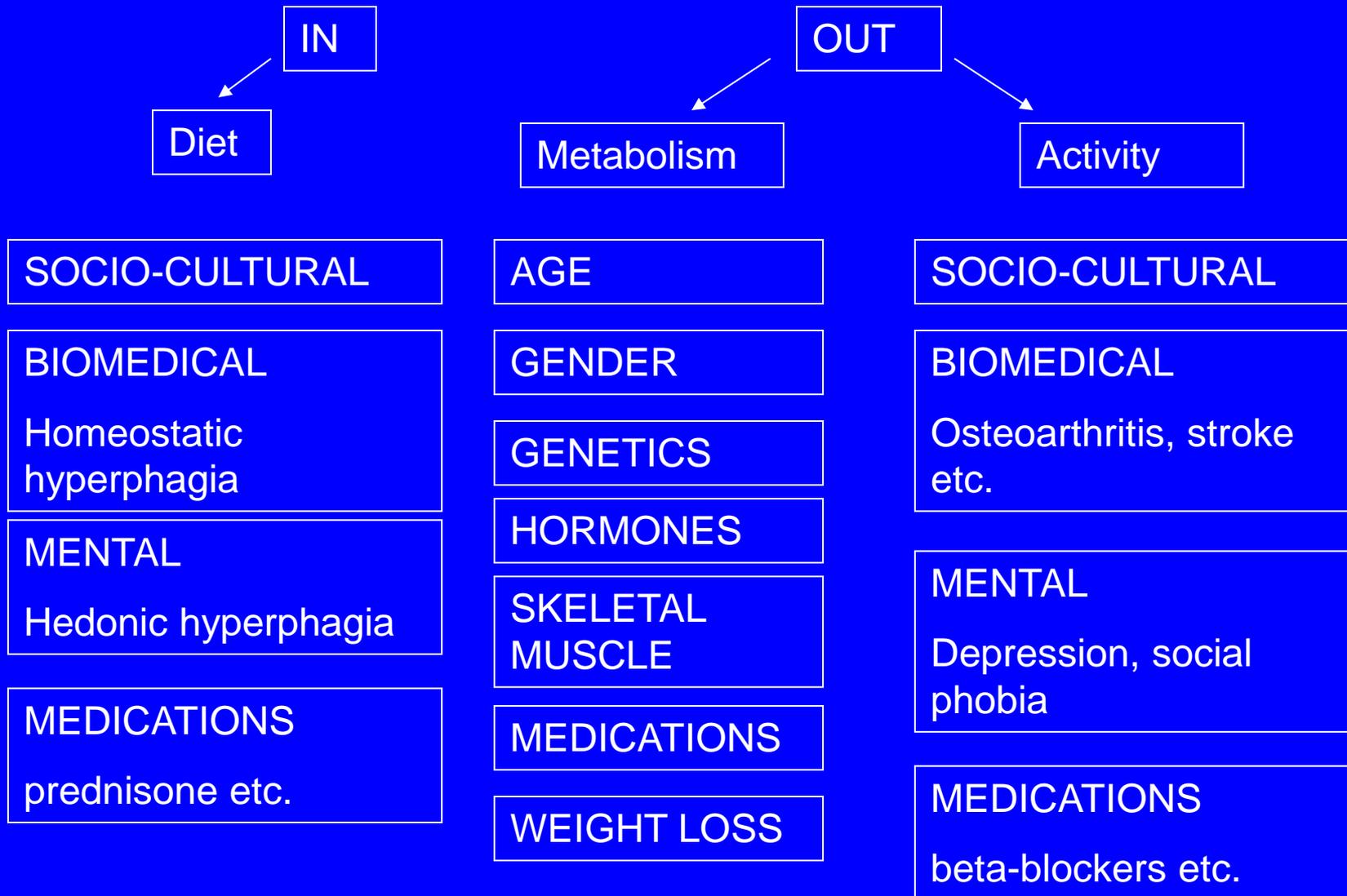






Obesities

An Aetiological Framework for Obesity



Mental Health as a Root Cause of Obesity

Altered Metabolism

- Medications

Increased Intake

- Disordered Eating
- ADHD
- Mood and Anxiety
- PTSD/Abuse
- Medications

Reduced Activity

- Depression
- Medication

Mental Health as a Barrier to Obesity Management

- Reduced Capacity to Manage Change
 - Concentration
 - Mood
 - Organizational Skills
 - Motivation
 - Energy

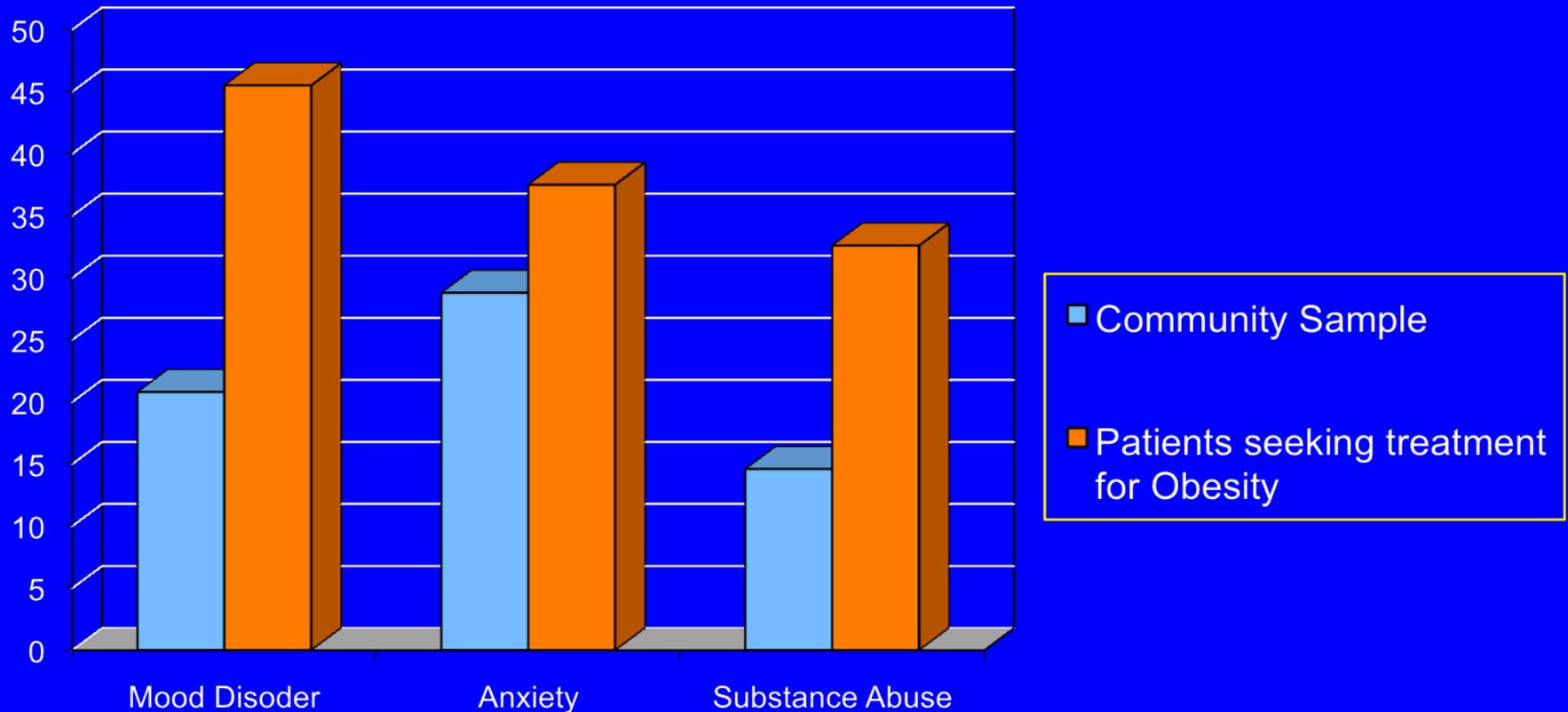
Mood Disorders: A Risk Factor for Metabolic Disturbance

- Diabetes mellitus and obesity are twice as prevalent in patients with mood disorders than control populations
- Insulin resistance leading to glucoregulatory disturbances may mediate cardiovascular, osteoporosis, cognitive abnormalities in mood disorders
- Bidirectional link between mood disorders and diabetes control

Depression in General Medical Conditions

HIV/AIDs	5 – 20%
Coronary Artery Disease	16 – 19%
Cerebrovascular Disease (stroke)	25 – 30%
Parkinson's Disease	28 – 51%
Epilepsy	20 – 55%
Various Cancers	5 – 20%
Diabetes Mellitus	20-40%
Overweight/Obesity	40-70%

Psychiatric Diagnoses in Patients Seeking Obesity Treatment



Depression

- Many studies have documented a relationship between obesity and an increased risk of depression
 - Stronger association for women
 - Higher rates of depression in people seeking obesity treatment than in the community



Does Obesity Lead to Depression?

- Several prospective studies have shown increased rates of depression when obese patients are followed over time
- Obesity at baseline increased the risk of onset of depression at follow-up
 - OR 1.55; (95% CI 1.22-1.98)

Does treating Obesity cause Remission of Depression?

- Some patients may have improved mood with weight loss
 - Fewer pain, physical symptoms
 - Improved self esteem
- Pre-existing mood disorders often persist with weight loss

Evaluation of Depressed Mood

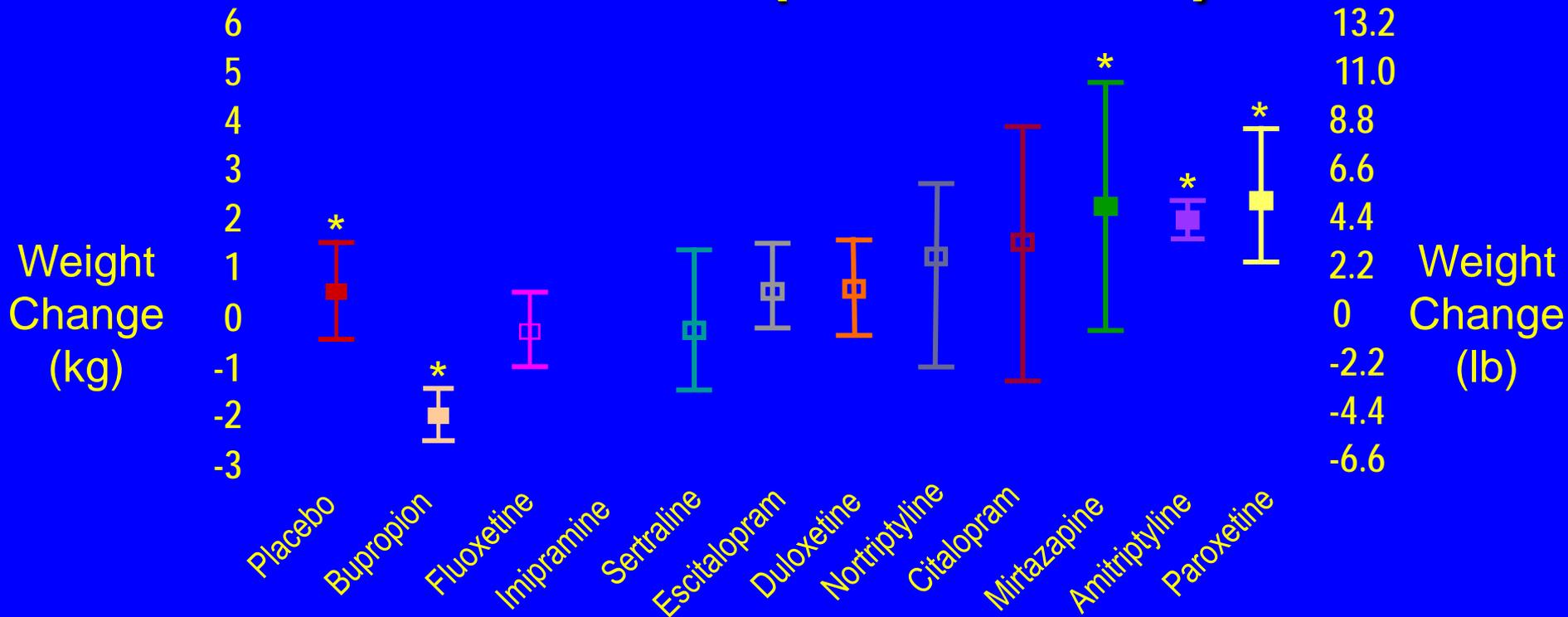
- Biological
- Psychological
- Social

Weight Gain with Antidepressants

Weight Gain

- Differential
 - Improvement in patients who lost weight secondary to depression
 - Residual symptom (overeating when depressed)
 - Side Effect
 - Significant gain in acute phase
 - Gain continues despite remission

Weight Change During Maintenance Antidepressant Treatment (>4 months)



* Filled squares indicate a significant effect.

Weight Gain

- MAOI's
 - Very common side effect
 - Less likely with reversible MAOI's (ie moclobemide)
- Tricyclics
 - Gain an average of 1.3 to 2.9 lbs per month in first year

Weight Gain

- SSRI' s
 - Initially viewed as weight neutral or associated with weight loss
 - Long term suggest an increase in weight
 - Paroxetine more likely to cause weight gain than Fluoxetine and Sertraline

Weight Gain

- SNRI's
 - Venlafaxine
 - Desvenlafaxine
 - Duloxetine
- All relatively weight neutral

Weight Gain

- Mirtazipine (Remeron)
 - Antihistamine
 - Significant weight gain
- Bupropion (Wellbutrin)
 - Slight weight loss overall

Discussion guide

This is a guide for questions and topics to consider after viewing Dr. Stonehocker's video and slide show on the topic of Depression, Anxiety, and Obesity. These questions may be discussed in a group or on your own.

1. Please take a moment on your own and consider what are the key messages you took from the speaker today (tips, messages, tools)?

- Of the information presented – how do you see yourself applying it in your practice?
- Were you surprised by the evidence suggesting a correlation between obesity and depression? Why or why not?
- What are some concerns that you have regarding the treatment options for patients with chronic mental illness? Are there any alternatives?
- How do these concerns change the way you approach patients seeking mental health support? And for patients seeking obesity treatment?
- What are some ways that we can proactively address mental health risks before they become a comorbid health problem?
- Is there anything you would like to learn more about on this topic?

2. Goal Setting

- Take a few moments of quiet time to come up with your own goal concerning a change you feel you can implement in your practice regarding mental health and obesity.
- Can you anticipate difficulties in achieving this goal?
- Are you confident that you can reach your goal?