Weight Management Care Guide

April 2026

CALIFORNIA CORRECTIONAL
HEALTH CARE SERVICES

Information contained in the Care Guide is not a substitute for a health care professional's clinical judgment. Evaluation and treatment should be tailored to the individual patient and the clinical circumstances. Furthermore, using this information will not guarantee a specific outcome for each patient. Refer to "Disclaimer Regarding Care Guides" for further clarification.

https://cchcs.ca.gov/clinical-resources/

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GOALS

- ✓ **Identify patients with overweight or obesity, with and without comorbidities.**
- ✓ **Provide patients who are overweight and obese with education on healthy lifestyle.**
- ✓ **Encourage all patients to engage in lifestyle modifications.**
- ✓ **Identify appropriate patients with severe obesity or obesity related comorbidities for bariatric surgery**
- ✓ **Streamline the workflow for pre- and post-bariatric surgery evaluation, monitoring, and care.**

ALERTS

- **Explicit and implicit bias impacts care provided to patients with overweight or obesity.**
- **Identify and deprescribe IMD among patients who do not have an eligible clinical indication.**
- **Post-bariatric surgery follow-up focuses on both adequate nutrition and possible mental health**
- **Unintentional or unexplained weight loss should be evaluated as appropriate.**

INTRODUCTION

The conceptualization of obesity has evolved from being a lifestyle choice of excess calories causing increased adiposity to being recognized as a chronic disease with multiple causative factors requiring a multidisciplinary management approach. In 2022, The Obesity Society (TOS), the Obesity Action Coalition, the Obesity Medicine Association (OMA), the American Society for Metabolic and Bariatric Surgery, along with other leading U.S. organizations with a primary focus on obesity, released a consensus statement that read, "Obesity is a highly prevalent chronic disease characterized by excessive fat accumulation or distribution that presents a risk to health and requires lifelong care". Additionally, the OMA defined obesity as a "chronic, progressive, relapsing, and treatable multi-factorial, neurobehavioral disease, wherein an increase in body fat promotes adipose tissue dysfunction and abnormal fat mass physical forces, resulting in adverse metabolic, biomechanical, and psychosocial health consequences."[1]

The prevalence of obesity has increased both globally and in the United States. One in three adults in the U.S. currently qualify as obese, and this number is projected to increase to 50% in 2030. Overweight, which is generally defined as Body Mass Index (BMI) ≥25, and obesity, which is generally defined as BMI ≥30, has been linked to increased incidence of cardiovascular disease (CVD) such as clinical atherosclerotic cardiovascular disease (ASCVD) and heart failure (HF), type 2 diabetes (T2D), dyslipidemia, hypertension (HTN), multiple cancers, and other comorbidities.[1]

This care guide focuses on the diagnosis and management of people with overweight and obesity. The diagnosis of underweight (BMI lower than 18.5) is not covered in this guide.

HEALTH EQUITY ALERT

At 35%, the prevalence of obesity in the CCHCS patient population is higher than that of the general population in the state of California (25-30%) according to CDC 2022 statistics. Upon review of CDCR 2024 data, there is a higher prevalence of obesity in Black (38%) and Hispanic (35%) patients than in non-Hispanic White (31%) patients.

UNINTENTIONAL WEIGHT LOSS

Although this care guide addresses intentional weight loss for patients with overweight or obesity, providers need to monitor for unintentional or unexplained weight loss, not fully explained by patient's lifestyle intervention or medication. There are a variety of health conditions that can cause unintentional weight loss and some may be life-threatening, such as malignancy, autoimmune disorders, infectious disease and mental health disorders. Certain medications have potential adverse effects, such as anorexia or dysphagia, that can lead to weight loss.

(See Approach to the patient with unintentional weight loss - UpToDate for more details)

Providers should be aware of these patients and evaluate as appropriate.

TRAUMA-INFORMED CARE

Obesity is a stigmatized condition. Providers may possess negative attitudes and stereotypes about people with obesity, which can impact their interaction with patients and potentially lead to compromised care. Studies have shown that providers often view patients with obesity as less likely to be adherent to treatment or self-care recommendations and spend less time with the patient compared with those who evaluated normal-weight patients. Meanwhile patients with obesity may have experienced psychological trauma with past encounters where their weight was the subject of ridicule or embarrassment and thus may avoid utilizing health care or place lower value on health.

Use a trauma-informed approach and motivational interviewing techniques to reduce or mitigate the impact of explicit and implicit bias, such as:

- Increasing empathy
- Recognizing that peers do not hold negative attitudes
- Understanding that genetic, environmental, biological, psychological, and social contributors play a role in weight gain and loss.

Additionally, it is important to use person-first language, which recognizes the potential hazards of labeling patients by their disease. Thus, "patient who is overweight or has obesity" or "patient with overweight or obesity" are preferred terms instead of "obese patient". Below are some examples of "encouraged" and "discouraged" terms from the OMA.

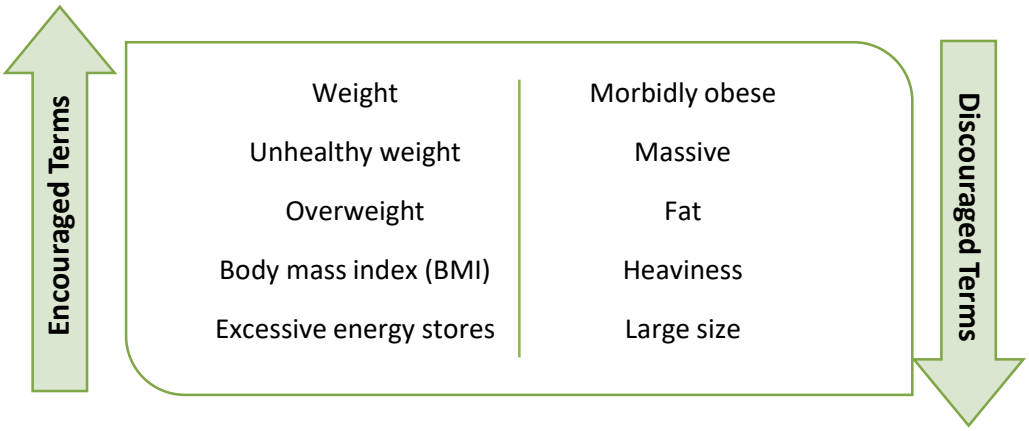

Figure 1: Encouraged vs. Discouraged Terms

DIAGNOSIS AND EVALUTION

SCREENING AND DIAGNOSIS

BMI is calculated by dividing the patient's weight in kilograms (kg) by their height in meters squared (m^2) and is a screening tool for overweight and obesity evaluation. BMI is also used to classify the severity of obesity and to determine realistic weight loss goals (See Table 1).

Using BMI has limitations in assessing a patient's health risk due to overweight or obesity because it does not distinguish between fat and lean mass or subcutaneous and visceral. This means that BMI can lead to an overdiagnosis of obesity in muscular patients and an underdiagnosis of patients with sarcopenia (i.e., some elderly).[4,5]

BMI* Value	Weight Category	Obesity Classification
18.5 to <25	Normal	--
25 to <30	Overweight	--
30 to <35	Obese	Class 1
35 to <40	Obese	Class 2
≥40	Severe Obese	Class 3

Table 1. Definition of Obesity Classifications

*****_Note that BMI cutoffs for identifying excess adiposity and risk of cardiometabolic disease are lower for some ethnicities and should be considered when screening for overweight and obesity. The World Health Organization (WHO) proposed the following weight classifications in adult_ ***Asians***[2]_: 23 to 24.9 kg/m² as overweight, and ≥25 as obese since obesity-related risks of comorbidities are found at a lower BMI range._

DIAGNOSIS AND EVALUTION CONT'D

Waist circumference (WC) measured at the level of the iliac crest is a simple and clinically applicable method to assess abdominal adiposity and is strongly associated with all-cause and cardiovascular mortality. Therefore, include WC alongside BMI to better stratify obesity-related health risk as visceral fat is independently associated with cardiometabolic and ASCVD risk.[4,5,6]

Then, evaluate the possible causes for weight gain including genetic, environmental (e.g., social or culture), medical, neurobehavioral, and endocrine factors including:

- Certain medications associated with weight gain (See Table 2)
- Family history of obesity or comorbidities of obesity (e.g., CVD, HTN, T2D)
- Polycystic ovarian syndrome (PCOS)
- Cushing syndrome
- Depression
- Hypothyroidism
- Food availability and history of food insecurity
- Chronic stress
- Sedentary lifestyle
- Disrupted sleep (e.g., poor quality, too little, or too much)[8]

Medication Class	Promote Weight Gain	Weight Neutral/Variable	Promote Weight Loss
Antidepressants	amitriptyline, doxepin, imipramine, mirtazapine (Remeron), nortriptyline (Pamelor), paroxetine (Paxil), phenelzine (Nardil)	citalopram (Celexa), duloxetine (Cymbalta), escitalopram (Lexapro), fluoxetine (Prozac), sertraline (Zoloft), venlafaxine (Effexor)	bupropion (Wellbutrin)
Antiglycemic medications	insulin, meglitinides, sulfonylureas, thiazolidinediones	dipeptidyl peptidase IV (DPP-4) inhibitors	acarbose, incretin mimetic drugs (IMDs), metformin, pramlintide, sodium-glucose cotransporter-2 inhibitors (SGLT2i)
Antipsychotics	chlorpromazine, clozapine (Clozaril), olanzapine (Zyprexa), paliperidone (Invega), quetiapine (Seroquel), risperidone (Risperdal)	aripiprazole (Abilify), haloperidol, ziprasidone (Geodon)	
Antiseizure medications	carbamazepine (Tegretol), valproate (Depacon), valproic acid (Depakene), divalproex sodium (Depakote)	benzodiazepines, lamotrigine (Lamictal), levetiracetam (Keppra), phenytoin (Dilantin)	topiramate, zonisamide
Cardiovascular drugs	amlodipine (Norvasc), atenolol, felodipine, metoprolol, nifedipine, propranolol	angiotensin-converting enzyme inhibitors (ACEi), angiotensin receptor blockers (ARB), carvedilol	SGLT2i
Hormones	progesterone, glucocorticoids	intrauterine devices (IUD)	
Hypnotics	diphenhydramine (Benadryl), zolpidem (Ambien)	benzodiazepines, trazodone	
Mood stabilizers	lithium		
Pain medications	Opioids including buprenorphine and methadone	Topical capsaicin, topical lidocaine	

Table 2. Medications Affecting Weight[7,8]

DIAGNOSIS AND EVALUTION CONT'D

Finally, evaluate the **obesity-related comorbidities**, including, but not limited to:

- Insulin resistance, prediabetes (i.e., impaired glucose tolerance, impaired fasting glucose), T2D
- Dyslipidemia
- HTN
- HF, especially heart failure with preserved ejection fraction (HFpEF)
- Clinical ASCVD, which includes chronic coronary disease, stroke, transient ischemic attack (TIA), peripheral artery disease (PAD), and aortic aneurysm, all of atherosclerotic origin
- Obstructive sleep apnea (OSA), obesity hypoventilation syndrome (OHS)
- Osteoarthritis
- MASLD (metabolic dysfunction-associated steatotic liver disease), MASH (metabolic dysfunction–associated steatohepatitis)
- Various cancers[9]

RISK STRATIFICATION

Patients with clinical CVD, evidence of severe subclinical CVD (such as left ventricular ejection fraction [LVEF] < 40% or CAC score ≥300), and positive genetic testing for a variant known to be pathogenic or likely pathogenic for an inherited cardiovascular condition are already at high risk for major adverse cardiovascular events (MACE), so calculating total CVD risk is not indicated.

For patients without clinical CVD who are 30-79 yo, use the American Heart Association (AHA) Predicting Risk of Cardiovascular Disease EVENTs (PREVENT) equations to estimate 10-year and 30-year risk for total CVD, including ASCVD and HF. The AHA PREVENT Calculator, which is found in **EBM Calc**, is based on the PREVENT equations and uses clinical information to estimate CVD risk by incorporating not only age, smoking status, BP, and lipid panel, but also measures of cardiovascular, kidney, and metabolic (CKM) health that are associated with higher CVD risk, such as overweight or obesity, chronic kidney disease (CKD) and/or albuminuria, and DM. Three optional predictors using uACR, A1C, and social deprivation index (SDI) further personalize risk estimates.

HEALTH EQUITY ALERT

The pooled cohort equations (PCEs) to estimate risk among adults without clinical CVD were derived from data on a mostly White population with baseline examinations dating from 1960s to 1990s. The PCEs are applicable only to patients 40-79 years old. The AHA PREVENT Calculator was derived from 6.5 million individuals with baseline examinations from 1992-2022 that included diverse racial and ethnic groups and is applicable for those aged 30-79 years. Furthermore, the AHA PREVENT Calculator integrates place-based social risk by a social deprivation index (SDI), as the burden of overweight and obesity is higher among those living in neighborhoods with higher deprivation. Therefore, model performance for the PREVENT equations is superior to PCEs and is the recommended risk-stratification calculator for patients with known CVD.

Cardiovascular-kidney-metabolic (CKM) syndrome is a highly prevalent and progressive disorder that describes the multidirectional interactions of obesity, diabetes, CKD, and CVD leading to a spectrum of severity with regard to pathology, TOD, and risk of CVD events and mortality. In 2023, the AHA, defined CKM syndrome as a systemic disorder characterized by pathophysiological interactions among metabolic risk factors, CKD, and the cardiovascular system leading to multiorgan dysfunction and a high rate of adverse cardiovascular outcomes. CKM syndrome includes both individuals at risk for CVD due to the presence of metabolic risk factors, CKD, or both, and individuals with existing CVD that is potentially related to or complicates metabolic risk factors or CKD. The increased likelihood of CKM syndrome and its adverse outcomes is further influenced by unfavorable conditions for lifestyle and self-care resulting from policies, economics and the environment. Prevention and timely management of risk factors, such as HTN, hypertriglyceridemia, and other confluent comorbidities, is critical during the early stages of CKM syndrome, when patients are frequently asymptomatic.[9,10]

DIAGNOSIS AND EVALUTION CONT'D

Active screening in the population helps identify individuals at different stages of CKM syndrome. Screening involves assessing biological factors and incorporating social determinants of health (SDOH), which can powerfully affect the development of CKM syndrome and influence its outcomes and management. The goal is to identify CKM syndrome in its earliest phases to avert the development of clinical CVD and kidney failure. Currently there is a lack of consensus on timing, frequency, and components for screening approaches to CKM syndrome.

Stage 0 No Risk Factors

- Focus on primordial prevention and preserving cardiovascular health
- Attaining and maintaining ideal cardiovascular health to decrease CVD and mortality
- Avoiding weight gain with aging decreases likelihood of developing CKM risk factors
- Promote sustainable healthy lifestyle practices

Stage 1 Excess or Dysfunctional Adipose Tissue

- Overweight
- Obesity by BMI
- Abdominal obesity by WC
- Impaired glucose tolerance
- Impaired fasting glucose

Stage 2 Metabolic Risk Factors and CKD

- Hypertension
- Metabolic syndrome
- Hypertriglyceridemia
- Type 2 diabetes
- Moderate-to-high risk CKD

Stage 3 Subclinical CVD in CKM Syndrome

- Subclinical ASCVD
- Subclinical HF
- Very high-risk CKD (stage 4 and 5)
- High predicted risk for CVD using the AHA PREVENT Calculator in **EBM Calc**

Stage 4 Clinical CVD in CKM Syndrome

- Obesity and CVD
- Clinical HF
- Clinical ASCVD including chronic coronary disease, stroke, peripheral artery disease, etc.
- Atrial fibrillation or atrial flutter

Figure 2: Stages of Cardiovascular-Kidney-Metabolic (CKM) syndrome

DIAGNOSIS AND EVALUTION CONT'D

EVALUATION

Through trauma-informed care, ask patient for permission to discuss body weight and explore their readiness for change.

History

Inquire about the following:

- Age at onset of weight gain
- Patterns of body weight gain over lifetime (i.e., slow and gradual, rapid and sudden, or combo)
- Events or triggers associated with the weight gain (e.g., family, marriage, abuse, incarceration, etc.)
- Patient insight into the possible psychological factors contributing to weight gain
- Previous weight loss attempts and weight loss achieved with those attempts
- Dietary patterns
- Current physical activity/exercise status
- Current and past medications: identify medications that affect weight (See Table 2)
- Tobacco and other substance use
- Current or anticipated barriers to future weight loss
- Effects of current and past body weight on mobility, interaction with family and friends, work, and instances of bias and discrimination[4,5]

Review the medical history to determine comorbid conditions and additional cardiac risk factors for which weight loss is strongly encouraged to decrease risk of morbidity and mortality.[4,5]

Consider screening for the following comorbidities:

- Substance use disorder (SUD): NIDA- Quick Screen/NIDA-MA
- Depression: PHQ-2/PHQ-9
- Anxiety: GAD-7
- Eating disorders: SCOFF Questionnaire[4,5,11]

Furthermore, sarcopenic obesity is the coexistence of reduced muscle mass and function (sarcopenia) with increased adiposity (obesity). Consider sarcopenic obesity for patients with the following risk factors:

- Older age
- High burden of chronic disease
- Recent medical events, such as hospitalizations, surgeries, reduced mobility, and sustained immobilization
- Long-standing restrictive diets
- History of bariatric surgery
- History of weight cycling
- History of falls or progressive movement limitations
- Complaints of weakness, exhaustion, and fatigue[12]

DIAGNOSIS AND EVALUTION CONT'D

Physical Examination

- Measure height in meters (m) and weight in kilograms (kg).
  - Measure and record accurately with the correct units to ensure a valid BMI is calculated in the Electronic Health Record System (EHRS).
  - Determine the patient's weight category and obesity classification, as appropriate, and document in EHRS under Problem List.
- For patients with BMI ≥25 to identify those with increased cardiometabolic risk, measure WC in centimeter (cm) at the level of the iliac crest with measure tape held horizontally and parallel to the floor while patient stands.
  - According to the American College of Cardiology (ACC)/American Heart Association (AHA)/TOS, elevated WC in the United States is ≥40 inches (102 cm) in men and ≥35 inches (88 cm) in women.
  - Lower thresholds are used outside of the United States. For instance, in patients of South Asian, Southeast Asian, and East Asian heredity, WC of at least 85 cm (≈ 34 inches) in men and at least 74 cm to 80 cm (29-32 inches) in women are used to identify abdominal obesity.[4,5,6]
- Identify signs of medical conditions that cause or contribute to weight gain, such as goiter, facial plethora, acne, hirsutism, striae, as well as fat deposition in the cheeks and temporal fossae, the dorsocervical area, and supraclavicular fat pads.
- Identify signs of obesity-related comorbidities, such as enlarged neck circumference, acanthosis nigricans, cutaneous xanthomas, etc.
- Note the following physical examination findings:
  - Significant elevation in blood pressure or heart rate
  - Murmur or arrhythmia
  - Lower extremity edema
  - Other concerning findings consistent with cardiac disease (e.g., bilateral crackles)[4,5,7]
- If sarcopenic obesity is suspected based on patient risk factors, consider assessing skeletal muscle function and strength with standardized tests like 30-second chair stand.[12]

Organ System	Possible Findings	Associated Comorbidity
Head and neck	Supracervical or supraclavicular fullness Round plethoric face or "moon facies" Poor visualization of soft palate or uvula	Cushing's syndrome Cushing's syndrome OSA
Cardiovascular	Tachycardia or irregular rhythm Valvular murmur or gallop	Atrial fibrillation/atrial flutter Heart failure
Pulmonary	Wheezing	Asthma
Abdomen	Hepatomegaly Prominent truncal adiposity	MASLD/MASH Insulin resistance
Genital	Vaginal atrophy Small testicular size	Menopause Hypogonadism
Neurologic	Reduced distal sensation to light touch, temperature, vibration Proximal muscle weakness	T2D Cushing's syndrome
Musculoskeletal	Enlarged joints Reduced range of motion	Osteoarthritis Osteoarthritis
Skin and hair	Erythematous rash within skin folds Skin tags Velvety hyperpigmentation in skin folds Hirsutism Excess acne Wide hyperpigmented striae Edema	Cutaneous candidiasis Insulin resistance Acanthosis nigricans PCOS PCOS Cushing's syndrome Heart failure

Table 3. Potential Physical Examination Findings Among Patients with Obesity[7,8]

DIAGNOSIS AND EVALUTION CONT'D

Diagnostic Evaluation

Baseline assessment includes doing the appropriate evaluation for causes of weight gain, including medication review, and, if applicable, also doing the appropriate workup for obesity-related comorbidities.[4,5]

Recommended Lab	Reason for Screening
CBC	Standard of care Platelet count is used in calculating risk score for hepatic fibrosis (i.e., FIB-4)
CMP	Standard of care to assess electrolytes, renal function with estimated glomerular filtration rate (eGFR), and liver function Increased transaminases can suggest MASLD and are used in calculating risk score for hepatic fibrosis (i.e., FIB-4)
Lipid panel	Identify dyslipidemia Calculate CVD risk using the AHA PREVENT Calculator, which is available in EBMCalc in EHRS
A1C	Screen for prediabetes and T2D
TSH	Low-cost test for potential secondary cause of weight gain
25-hydroxyvitamin D (25[OH]D)	Strong correlation between obesity and vitamin D deficiency, which can exacerbate metabolic complications of obesity such as insulin resistance and T2D

Table 4. Potential Physical Examination Findings Among Patients with Obesity[4,5,7]

Additional evaluation

- Consider screening for SUD with urine drug screen (UDS [374594]) and/or refer for evaluation with ISUDT Behavioral Health team; consider using the MAT PowerForm to determine diagnosis.
- Consider screening cardiac biomarkers. In addition to obesity, other conditions like DM, HTN, dyslipidemia, CKD and/or albuminuria, and chronic coronary disease increase HF risk.
  - Among asymptomatic patients, obesity can indicate "at risk for HF" (i.e., Stage A), so consider annual screening of brain natriuretic peptide (BNP), natriuretic peptide tests (NT-proBNP), or high-sensitivity cardiac troponin (hs-cTn) to determine HF risk.
  - If biomarker screening is abnormal (i.e., BNP ≥50 pg/mL, NT-proBNP ≥125 pg/mL, or hs-cTn >99th percentile upper reference limit):
    - Evaluate the result in the clinical context of patient factors.
    - In the absence of possible competing diagnoses that can lead to increased natriuretic peptide levels – such as renal disease, pulmonary disease (e.g., pulmonary hypertension, chronic obstructive lung disease), OSA, anemia, or stroke – consider further workup with transthoracic echocardiography (TTE).
    - Note: Natriuretic peptide levels can be decreased in patients with obesity, which impairs sensitivity of testing in this population.
- Consider other micronutrient levels, if clinically indicated, since patients with overweight and obesity have higher prevalence of nutrient deficiencies as well as protein-energy malnutrition (PEM).
  - Sarcopenic obesity and malnutrition in obesity exhibit distinct characteristics. Sarcopenic obesity is defined by the coexistence of excess adiposity and sarcopenia (low muscle functionality and altered body composition). In contrast, malnutrition in obesity refers to undernutrition related to specific energy or nutrient deficiencies (such as PEM) within the context of obesity. Although both sarcopenic obesity and malnutrition of obesity exhibit reduced muscle mass and function, sarcopenic obesity prioritizes muscle function (i.e., impaired physical performance) over muscle mass.

DIAGNOSIS AND EVALUTION CONT'D

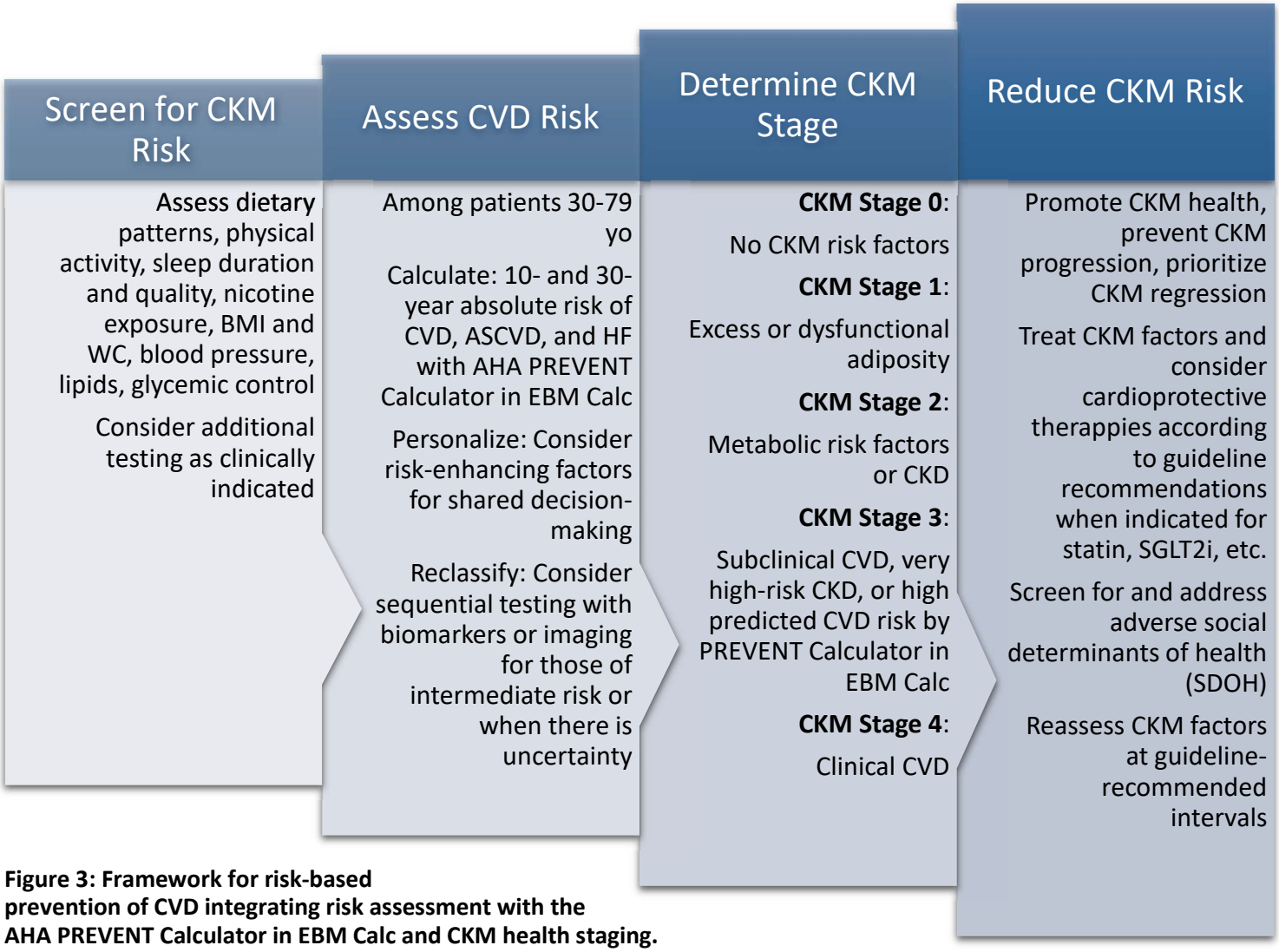

Figure 3: Framework for risk-based prevention of CVD integrating risk assessment with the AHA PREVENT Calculator in EBM Calc and CKM health staging.

MANAGEMENT

If causes of obesity and/or obesity-related comorbidities are identified during history, physical, and diagnostic evaluation:

- Consider adjusting medications that affect weight (See Table 2). When possible, select a medication with a preferred metabolic profile, such as weight neutral or inducing weight loss in appropriate patients. If applicable, collaborate with the Mental Health prescriber when the metabolic profile of a medication is undesirable. American Association of Clinical Endocrinologists and OMA indicate that medications such as metformin can be considered to mitigate the weight gain effect from antipsychotic medications.[4,5]
- Consider referring to endocrinology for suspected endocrine causes of obesity.
- Optimize management of comorbidities with evidence-based therapy. Consider comanagement with specialists, if clinically appropriate.
- Consider referring to dental services for patients with severe obesity, who are at increased risk of poor oral health, and patients who have had bariatric surgery given risk of dental erosion.[7]

The management goals for patients with overweight or obesity are to improve patient health, quality of life, and body weight and composition. Work with patients when establishing goals for therapy through shared decision-making.

- Weight loss that is 5% from baseline is generally accepted as a "clinically meaningful" amount.
- Guidelines recommend modest weight loss (5-10%) as the goal for medically supervised weight loss to help improve insulin resistance, blood pressure control, and lipid profile.
- Greater weight loss above 10% leads to improvement in other comorbidities.

Balanced nutrition and physical activity promote physical and mental well-being, even in the absence of weight loss.[13]

Statistically Significant Improvement by Condition	Weight Loss for Improvement
Triglyceride, systolic blood pressure, menstrual irregularity/infertility in PCOS	2-5%
T2D prevention in prediabetes/impaired fasting glucose	2.5-10%
T2D glycemic improvement	2.5-15%
HDL cholesterol, diastolic blood pressure, knee pain and function (mobility) from osteoarthritis, stress urinary incontinence, erectile dysfunction/sexual dysfunction, asthma, risk of depression, quality or life, health care costs of hospitalization	5-10%
Hepatic steatosis (MASLD)	5-15%
GERD, Apnea Hypopnea Index (AHI) in OSA, cardiovascular events and mortality	>10%

Table 5. Weight Loss and Improvement in Comorbidity: relationship with amount of weight loss by percentage of total body weight at baseline and various comorbidities. For some comorbidities, more weight loss is needed to translate into clinically significant improvement. Additionally, more weight loss maximizes improvements.[13]

Engage the patient in identifying areas of significant concern and discuss the patient's expectations. Help them reframe, if necessary, toward realistic goals. Document agreed upon functional goals. Use specific examples, such as taking walks (define distance/number of laps), participating in recreational activities, reducing sugary drinks, etc. Establish realistic goals that are **Specific, Measurable, Achievable, Relevant, and Time-based** (SMART). [3]

Figure 4: SMART Goals for Weight Management[3]

MANAGEMENT CONT'D

Due to the multifactorial contributors to obesity, a multidisciplinary approach is required to address obesity and its related health concerns. There are five modalities involved in weight management.

INTENSIVE LIFESTYLE INTERVENTION

Intensive lifestyle interventions (ILI), which include modalities 1-3, are recommended for all patients with overweight or obesity. The goal is to encourage the patients to make long-term changes in their behavior by providing educational materials on nutrition, healthy eating habits, physical activity and positive exercise habits. For patients with obesity, aim for a weight loss goal of 10% of baseline total body weight in the first year to improve obesity-related complications.[9] For example, the America Gastroenterological Association advised, "among patients with nonalcoholic steatohepatitis, weight loss ≥5% of total body weight can decrease hepatic steatosis, weight loss ≥7% of total body weight can lead to nonalcoholic steatohepatitis resolution, and weight loss ≥10% of total body weight can result in fibrosis regression or stability."[14]

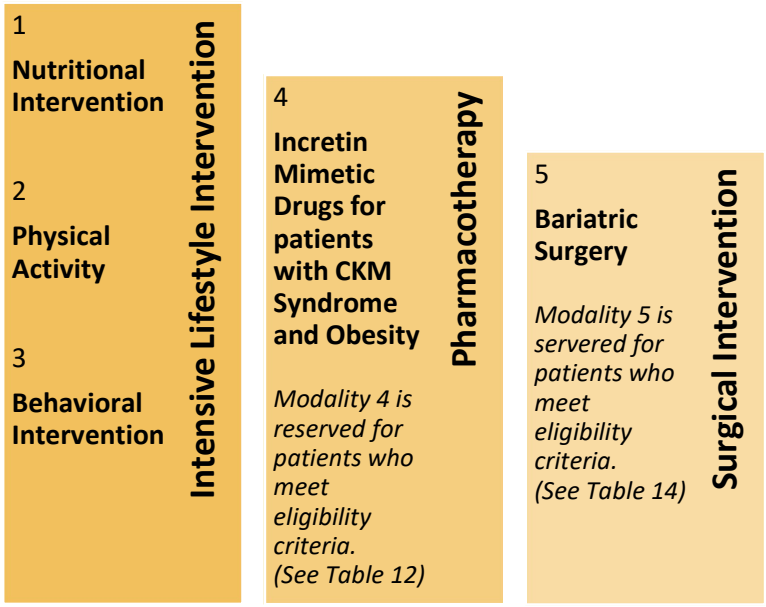

Figure 5: Phases of Intervention

1. Nutritional Intervention

Clinically significant weight loss requires a hypocaloric diet targeting 1200–1500 kcal/day or a reduction of 500–1000 kcal/day from baseline, which leads to sustainable weight loss at a rate of 0.5-1 kg/week. Encourage patients to adhere to a balanced diet as provided by the facility and to avoid less nutritionally dense items such as processed foods from canteen. Refer to Patient Education for healthy eating tips, instructions on how to estimate portion sizes of meals and snacks, healthy canteen food items, and how to read a nutrition label.[4,5,14]

Utilize the Weight Management PowerPlan in EHRS for consultation with CCHCS registered dietician (RD):

- Consider for patients with obesity and CKM co-morbidities who are eligible for incretin mimetic drugs.
- Consider for patients with BMI ≥ 40 or BMI ≥ 35 with at least one obesity-related comorbidities.
- Before bariatric surgery, send patients as part of the Medical Weight Management Program (MWMP).

2. Physical Activity

Increased physical activity is an important part of a weight management program. Recommend an exercise target of **150-300 minutes** of moderate-intensity or **75-150 minutes** of vigorous-intensity aerobic exercise per week. Moderate-intensity exercise includes brisk walking. Vigorous-intensity activity include running, weight-lifting, and boxing. Add moderate- to high-intensity muscle-strengthening activity with **resistance training** at least 2 days per week. Patients who have overweight and obesity with comorbid osteoarthritis or other clinical indications can benefit from **physical therapy**. Combined with decreased caloric intake, increased physical activity:

- Reduces visceral adipose tissue more than dietary interventions alone, even in the absence of weight loss
- Leads to weight loss
- Prevents weight regain or weight cycling
- Minimizes risk of sarcopenia
- Prevents loss of muscle mass and function
- Improves quality of life and functional ability

Encourage patient to continue physical activity even if they did not experience immediate weight loss.[4,5,14]

MANAGEMENT CONT'D

Risks of Physical Activity: Musculoskeletal injury is the most common risk of exercise (e.g., acute strains and tears, stress fractures, tendonitis). Patients with new musculoskeletal complaints or known chronic dysfunction from prior injury or deconditioning should be evaluated and managed as necessary. Appropriate modifications to a standard exercise program can be recommended for these patients. More specifically, identify patients at increased risk for heat illness, including those who are prescribed heat risk medication(s).

Less common risks include but are not limited to arrhythmia, myocardial infarction, cardiac arrest, and asthma exacerbation.

The contemporary American College of Sports Medicine guidelines do not include cardiovascular risk factor profiling as part of a exercise preparticipation screen, which is a change from past approaches to screening. The exercise preparticipation health screening process focuses on:

- Patient's current level of physical activity
- Signs or symptoms suggestive of CVD
- Known cardiovascular, metabolic, or renal disease
- Desired exercise intensity[15]

CLIMATE ALERT

Physical activity in water and rain significantly increases the risk for developing hypothermia and other cold injuries. Older patients (> 60 yr) are at increased risk of hypothermia and other cold-related injuries due to blunted physiological and behavioral responses to cold. Hypoglycemia impairs shivering and increases the risk for hypothermia.

The most common nonfreezing cold injuries (NFCI) are trench foot and chilblains, which typically occur with tissue exposed to temperatures between 0-15°C (32-60°F). These injuries may occur due to immersion or a damp environment inside boots caused by sweat-soaked socks, so advise patients to wear appropriate clothing in cold and wet weather to keep body warm and dry.

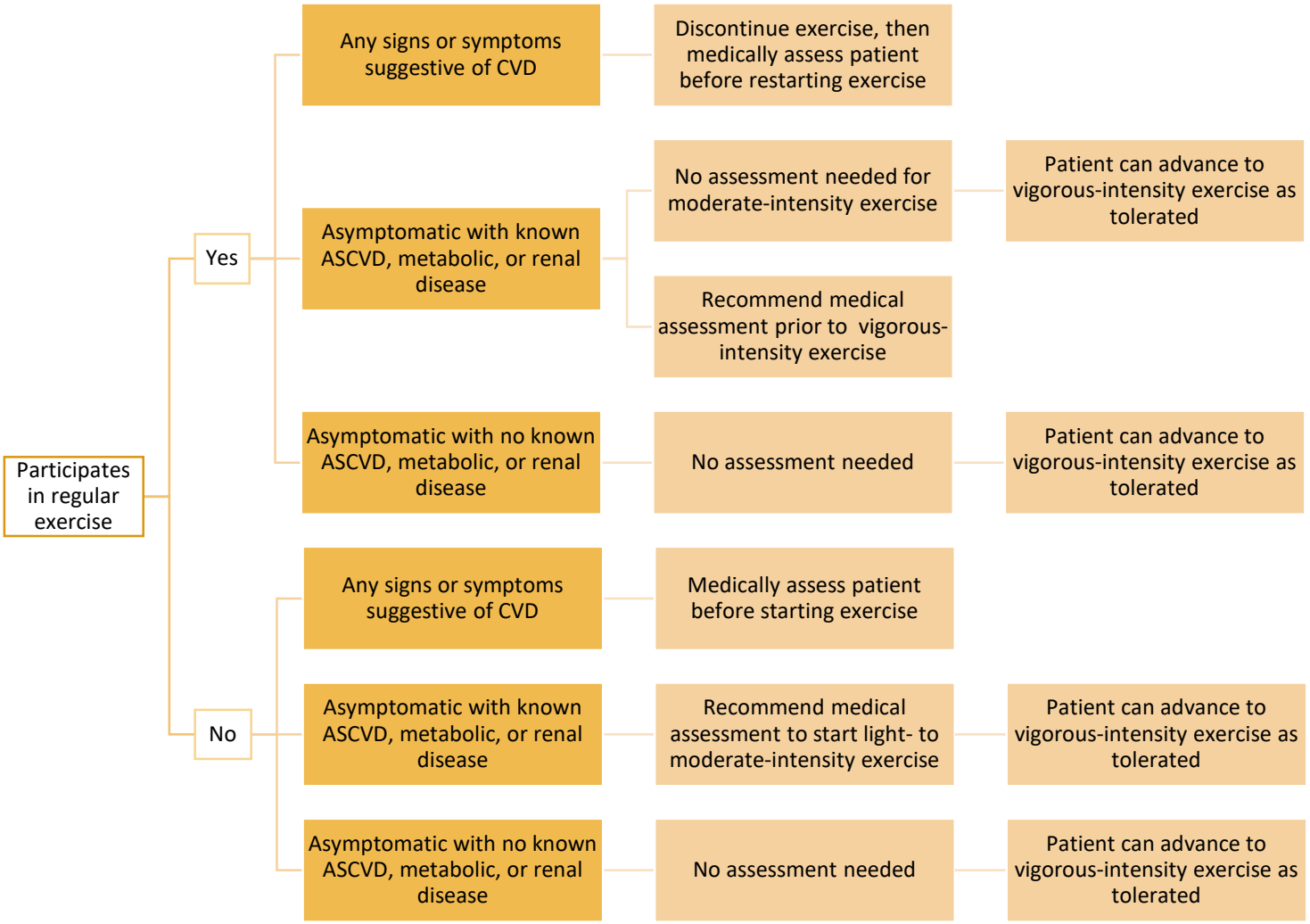

Figure 6: Health Screening Prior to Exercise[15]

MANAGEMENT CONT'D

Write an exercise prescription using the **FITT-VP mnemonic** to capture important components of an exercise program.

Frequency: How often a person does an activity (e.g., walks twice a week or does pushups every day)

Intensity: How hard a person works to do the activity (low-intensity, moderate-intensity, or vigorous-intensity)

Time: How long person does an activity in any one session; number of repetitions for strength training activities

Type: Aerobic, strength, mobility, or some combination

Volume: Total volume or total expenditure of exercise (frequency x intensity x time)

Progression: Plan of exercise progression by gradually increasing one of more of the components over time

	Sedentary	Non-Sedentary	Intermediate
F	3 days/week	3-4 days/week	4-5 days/week
I	Moderate intensity*	Moderate intensity*	Moderate intensity*
T	20-30 minutes	30 minutes	30 minutes
T	Slow walking, stretching	Brisk walking, squats, planks, sit-ups	Jogging, squats, planks, push-ups
V	3 days/wk totals 60-90 min/wk	3-4 days/wk totals 90-120 min/wk	4-5 days/wk totals 120-150 min/wk
P	Increase from 20 to 30 minutes	Increase from 3 to 4 days/wk	Increase from 4 to 5 days/wk

Table 6. FITT Exercise Prescription: examples of exercise prescriptions for patients who are currently sedentary, non-sedentary, or already exercise to an intermediate degree but wanting to increase the intensity/duration.

***** If a person is breathing hard but can still have a conversation easily, it is moderate-intensity activity. If a person can only say few words before having to take a breath, it is vigorous-intensity activity.

- Recommend exercises based on current activity level and ability.
- Recommend an exercise target of 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity aerobic exercise per week.
- Add moderate- to high-intensity muscle-strengthening activity with resistance exercise training (RET) at least 2 days per week.
- Use clinical judgment to determine which exercises are safe and appropriate.
- For sedentary patients, start slowly to avoid injuries that would derail their progress or commitment.
- Healthy older adults can engage in aerobic exercise and RET to experience positive adaptations to exercise training.
- Older adults can substantially increase strength with RET.
- Encourage patient to enroll in physical activity programs and/or classes if available at their institution.
- Encourage patient to track their exercise. Refer to PE-6 for an Example Exercise Journal.[3,4,5,14]

MANAGEMENT CONT'D

3. Behavioral Intervention

For patients with comorbid mental health disorder and/or SUD, ensure patients are appropriately referred to Mental Health Services and/or Integrated Substance Use Disorder Treatment (ISUDT) program to address underlying SUD and mental health issues. Otherwise, focus on using behavioral medication strategies, such as mindfulness and motivational interviewing, as useful behavioral interventions.

Mindfulness is the practice of purposefully and non-judgmentally paying attention to the present moment, which aids in improving eating behaviors and reducing weight by increasing awareness of food-related thoughts and feelings (e.g., understanding internal sensations and identifying triggers). Mindfulness practice helps patients develop skills for self-regulation by improving awareness of emotional and sensory cues, which are also important in altering their relationship with food.

According to a report from the U.S. Department of Agriculture, the average American spends 2.5 hours a day eating. More than half the time, individuals are eating while doing something else like working, reading, or watching television. Mindful eating means being fully attentive to the food as it is served and eaten.

Table 7: Mindfulness Exercises[16]

Concept	Exercise
Recognizing with feeling of hunger	• Take five deep breaths before eating. • Come to the dining table with an appetite, but not when ravenously hungry.
Developing awareness of taste satisfaction by savoring and enjoying food	• Eat without distractions. • Appreciate your food. Pause for a minute or two before beginning a meal. • Bring all senses to the dining table. Pay attention to color, texture, aroma, ingredients, and seasoning.
Making mindful choices based on both 'liking' and health	• Start with a small portion of protein. • Take small bites. Put your fork and spoon on the dining table while chewing. • Reading labels of food from the canteen, and consider which is the healthier choice: chips, cookies, or grapes. • Pre-plan and manage social influences when eating.
Developing awareness of satiety	• Chew thoroughly. • Eat slowly. • Pay attention to fullness cues and stop eating once you begin to feel satisfied.
Awareness of negative self-judgement related to eating	• Identifying black and white thinking. • Replace thoughts like "I failed" or "I blew it" with thoughts of things you do well, no matter how small. • Shift from self-judgement to self-inquiry to interrupt cycles of self-doubt. • Self-compassion serves as a protective factor against these maladaptive attitudes towards eating.

MANAGEMENT CONT'D

Motivational interviewing is a collaborative patient-centered, goal-directed approach in which the provider becomes a helper in the change process to guide patients toward positive behavior change, based on the patient's own motivations and commitment to change. In the context of weight management, the provider helps to identify and facilitate the patient's goals for achieving a heathier body weight and composition. This technique can help resolve the ambivalence that prevents patients from realizing their personal goals.[3] See Motivational Interviewing User Guide & Scripts for Patient Encounters from CCHCS Education & Training Unit.

- Ambivalence about weight loss (and lifestyle change) is normal and constitutes an important motivational obstacle in chronic management. Patients are often aware of the merits of weight loss but are not ready to change their behavior and lifestyle – these feelings are natural, regardless of the patient's stage of readiness.
- If a patient's ambivalence is interpreted as denial or resistance, friction between provider and patient can occur. Resolve ambivalence by working with the patient's intrinsic motivations and values. A provider-patient alliance is a collaborative partnership, and each individual brings important expertise.[3]

Table 8: Five Principles of Motivational Interviewing

Express empathy through active listening	• Empathy communicates respect for and acceptance of patients and their feelings and encourages a non-judgmental, collaborative relationship. • Empathy is the foundation of a motivational counseling style.
Develop discrepancy between goals/values vs. current behavior	• Developing awareness of consequences helps patients examine their behavior. • A discrepancy between present behavior and important goals motivates change.
Avoid argument and direct confrontation	• Arguments with patients can rapidly turn into a power struggle and do not enhance motivation for beneficial change.
Roll with resistance rather than opposing it	• Common types of resistance include arguing, interrupting, talking over or cutting off, denying, blaming, excusing, pessimism, or ignoring.
Support self-efficacy and agency	• Many patients do not have a well-developed sense of self-efficacy which is often demonstrated in their inability to believe they can change. • Patient education can increase a patient's sense of self-efficacy.

Table 9: OARS Approach

Open Questions	Encourage patient to respond with more than "yes" and "no" answers. Building rapport between provider and patient facilitates open communication and sharing of information. Open-ended questions can seem more time-consuming but can be more efficient because they elicit more reliable and complete information and, when skillfully managed, do not have to lead to lengthy discussions. *"If you decided to try and achieve a healthier weight, how would you go about doing it? What are the three most important benefits you see in making this change?"*
Affirmation	Affirmation through statements of empathy and support of accomplishments anchor patients to their strengths and resources as they address problem behaviors. Affirmations help patients feel more comfortable, forthcoming, and open to feedback. Affirmations can be brief but powerful in building a therapeutic alliance. *"You've been very consistent with your approach to eating breakfast every day."*
Reflective Listening	Reflections are restatements of a patient's words or interpretations of their meaning. Providers who reflect act as mirrors for patients to hear back what they have said. Hearing someone repeat what you had said can increase insight and self-reflection. Not meant to be directive, reflections allow patients to elaborate on their concerns. *"What I hear you saying is you want to limit your snacking, but your cell mate makes it hard for you because you're tempted by the snacks they buy from the canteen."*
Summary Reflections	Summarizing is simply a set of reflections gathered and presented to the patient. Summaries help patients organize their experiences. Summarization brings closure and consensus to what has been discussed and sets the stage for next steps. A summary statement often ends with a question. *"What you've said is important and I want to make sure I have it right…"*

MANAGEMENT CONT'D

Another motivational interviewing technique is the Five A's approach: Assess, Advise, Agree, Assist, and Arrange. This evidence-based approach has been recommended by the Society for Behavioral Medicine and the AHA as a practice guide for obesity counseling. Common barriers to making lasting behavioral changes (e.g., following an exercise program) include suboptimal social support, social isolation, financial difficulties, and a lack of free time. While our patients may have "free time" and may not have the same financial difficulties as a patient in the community, many are socially isolated and lack social support. Strategizing with the patient to identify realistic options to overcome these barriers, real or perceived, is integral to changing unhealthy behaviors.[3]

Table 10: Five A's Approach

Ask	• Ask the patient for permission to discuss body weight and explore their readiness for change. *"May we take a moment to discuss your weight and any concerns about your weight's effect on your health?"* • Identify the patient's knowledge, intentions, and motivations to get treatment. *"What have you learned about your options for obesity treatment so far?"*
Assess	• Identify the patient's willingness for change. The readiness to change develops gradually and may follow these five stages: o Pre-contemplation (not ready to make changes) o Contemplation (considering making some changes to diet or exercise) o Preparation (actively planning what changes they are ready to make on their diet or exercise) o Action (actively involved in a diet or exercise change) o Maintenance (achieved positive change(s) in diet or exercise habits) *"How ready are you to incorporate more exercise into your routine?"* • Identify the patient's lifestyle and clinical risk factors associated with obesity, as well as barriers for obesity treatment success. *"What challenges do you have for managing your weight?"*
Advise	• Provide patient-centered advice on obesity treatment options after gaining understanding the patient's perspective, special circumstances, barriers, and misconceptions. The information on the risks and benefits of treatment options will be tailored to the patient's intentions and motivations. *" What I hear you saying is you want to limit your snacking, but your cell mate makes it hard for you because you're tempted by the snacks they buy from the canteen."*
Agree	• Support patients to explore their preferences for treatment options, support their decision-making process, and agree on a sustainable strategy for obesity treatment. *"I agree that limiting your snacking from the canteen is one nutritional intervention you can do. What questions do you have about other nutritional interventions that you can do?"* • Once a treatment strategy is selected, support the patient's goal setting by agreeing on specific goals. Starting with SMART (specific, measurable, achievable, realistic, and time-based) goals can help patients achieve initial success and make progress toward larger, long-term goals. *"I agree that brisk walking is a great exercise. What is your plan for how long you will do brisk walking and for how many days per week?"*
Assist or Arrange	• Assist the patient in developing action plans to achieve and maintain their goals. This includes helping the patient to anticipate barriers to maintaining the selected obesity treatment and making a plan for overcoming possible obstacles. *"I think it's great that you want to start by walking every day. What are your plans for exercise on days when the weather makes it difficult to walk outside?"* • Arrange for follow-up support with the shared understanding that obesity treatment is going to be an ongoing process. This includes referrals and other support services at their institution. *"To better support your goals for dietary changes and incorporating exercise into your routine, I recommend that you attend the Nursing Led Therapeutic Group Weight Management Series."*

MANAGEMENT CONT'D

As the previous strategies have demonstrated, patient engagement is the key to success. Patients as active partners participate in setting goals for behavioral changes, which means their treatment plan is individually tailored to their needs and goals.

- Self-monitoring through observing and tracking/recording some aspects of behavior (such as caloric intake and/or exercise) usually assists in changing the behavior.
- Focusing on improvements in health rather than weight loss.
- Encouraging the patients to build social support for new behaviors, such as asking friends to walk the yard or to track intake each day.
- Encouraging the patients to reinforce the positive behavior change with self-reward and positive self-talk.
- Encouraging active problem-solving to maintain the behavior change.
- Ensuring the patients know habits may be hard to change, but they can be changed.
- Explaining that it typically takes about 6 weeks of actively altering behavior before that new behavior starts to become a habit. Let the patient know to anticipate struggles, but it will get easier.

Barriers to success often include:

- Lack of provider comfort in initiating and conducting discussions about obesity with patients
- Hesitancy to reduce trust or offend patients who may be seen, incorrectly or not, as wanting to avoid these interactions
- Assumptions about patient interest in weight management strategies and access to them
- Structural issues of providing care in the carceral setting[3]

Table 11: Barriers to Success

Physical limitations	Physical or anatomical defects, prior arthritic injuries, deconditioning and decreased functional capacity from sarcopenic obesity, and gait instabilities.
Medical limitations	Advanced chronic conditions such as cardiac ischemia, respiratory failure (persistent asthma or chronic obstructive pulmonary disease), excessive fluid retention (end-stage liver disease ascites, systolic/diastolic dysfunctions, heart failure, and end-stage renal disease on dialysis), and chronic pain syndromes preventing effective participation in exercise.
Non-adherence	Lack of purposeful self-motivation for daily dietary control and exercise. Inability to set personal goals.
Decreased access to physical activity	Dependent on the residing institution, level of security risks, and weather extremes.
Behavioral health issues	Several mental health disorders are more prevalent in patients with obesity, such as depression, eating disorders, anxiety, and substance abuse. Data suggests between 20% and 60% of persons with obesity and severe obesity suffer from a mental health condition.[6] Patients who are overweight and obese may have problems with stress, sleep and maladaptive eating behaviors that exacerbate their weight control issues. When evaluating patients with overweight and obesity, it is important to refer those patients with suspected eating disorders, anxiety, and depression or history of trauma to mental health and those with SUD to ISUDT Behavioral Health team for further evaluation and treatment, if it was not already done.
Social and Environmental Factors	Some patients may want to maintain a larger body size believing this could protect them in a possible altercation or riot. A patient may claim that they are "normal size" compared to other inmates they see around them. It is important to remind these patients that their weight is not healthy. Patients may have family or friends who visit and make negative commentary about their weight loss, assume they are not fed enough in prison, and send them packages of foods that are often high in calories as well as sugar content, for many reasons including wanting to provide comfort for loved ones. Others may overconsume food due to boredom and not knowing how to spend all their free time. Providers should emphasize to the patients the importance of maintaining a healthy weight and that how they take care of their bodies while incarcerated will affect the rest of their lives. Exercising and maintaining a normal, healthy weight while incarcerated will increase the chance of the patients paroling healthier and able to reengage with the community.

MANAGEMENT CONT'D

PHARMACOTHERAPY

Incretin mimetic drugs (IMD), such as glucagon-like peptide 1 receptor agonist (GLP-1) and glucose-dependent insulinotropic polypeptide (GIP) receptor agonist/GLP-1, are not available at CCHCS for weight loss and weight management. Patients with eligible clinical indications can be prescribed IMD. Otherwise, identify and deprescribe patients who do not meet eligibility criteria for IMDs.[4,5,10]

Table 12: Eligibility Criteria for Incretin Mimetic Drugs

Clinical Indication	Appropriate IMD
Clinical ASCVD + overweight/obesity	Semaglutide OZEMPIC®/Wegovy®
HFpEF + obesity already prescribed SGLT2i	Semaglutide OZEMPIC®/Wegovy®, tirzepatide Zepbound®
Moderate-to-severe OSA with AHI ≥15 + obesity	Tirzepatide Zepbound®
Moderate-to-advanced MASH with stage 2 (F2) or stage 3 (F3) fibrosis without cirrhosis	Semaglutide OZEMPIC®/Wegovy®
T2D	**Dulaglutide Trulicity®**, semaglutide OZEMPIC®

Refer to Diabetes Care Guide, Chronic Coronary Disease Care Guide, Heart Failure Care Guide, and MASLD/MASH Care Guide for more detailed information on prescribing IMD.

MANAGEMENT CONT'D

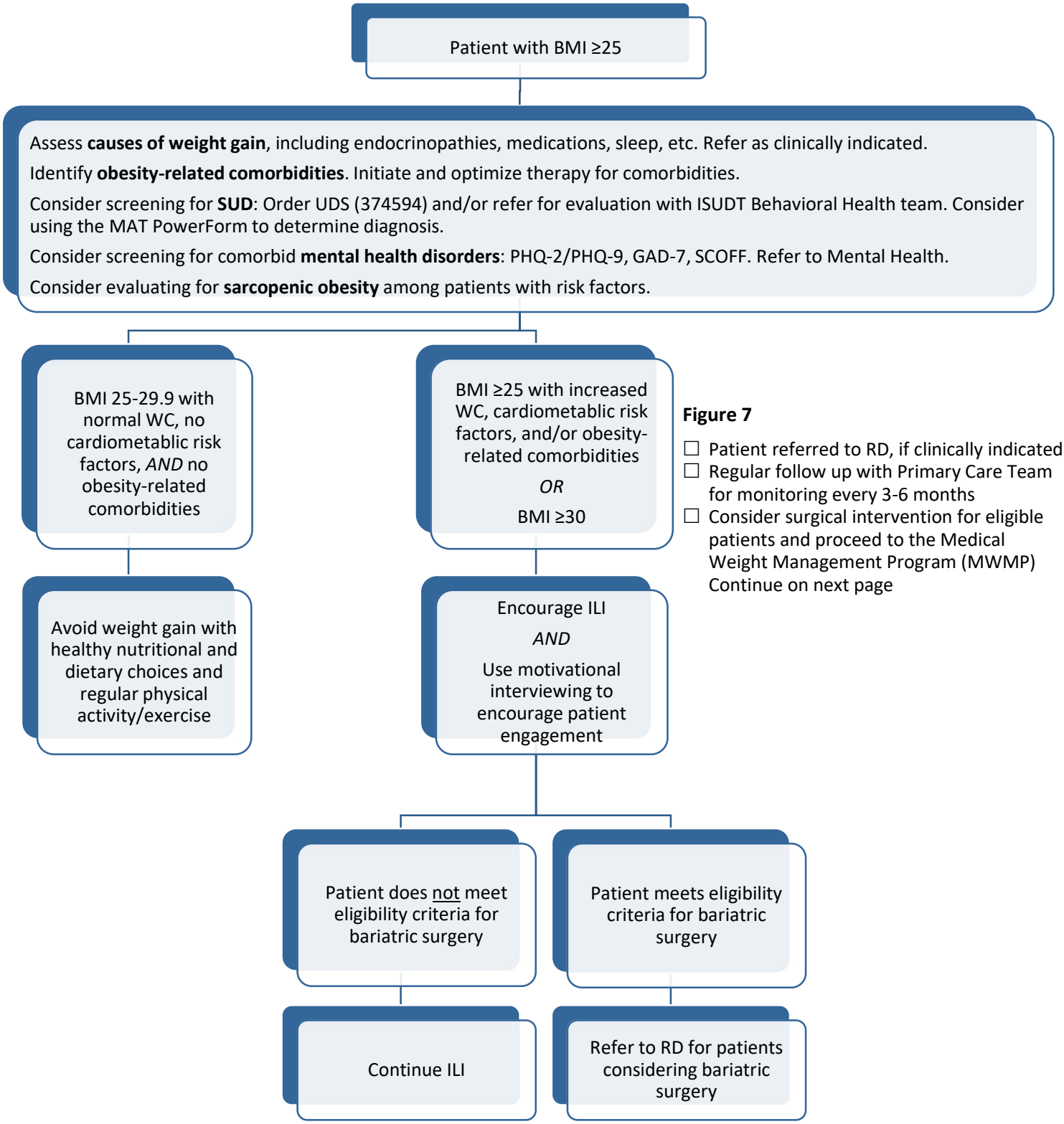

Figure 7

- ☐ Patient referred to RD, if clinically indicated
- ☐ Regular follow up with Primary Care Team for monitoring every 3-6 months
- ☐ Consider surgical intervention for eligible patients and proceed to the Medical Weight Management Program (MWMP)

Continue on next page

MANAGEMENT CONT'D

SURGICAL INTERVENTION

Surgical intervention of obesity aims to achieve sufficient weight loss to establish metabolic control, improve/resolve obesity-related comorbidities, and enhance quality of life. A multidisciplinary team involving a variety of healthcare professionals is instrumental for success. This section highlights the importance of patient selection, perioperative care, and the different types of bariatric procedures currently available.

4. Bariatric Surgery

Bariatric surgery has been shown to significantly reduce long-term all-cause mortality when compared to severely obese non-bariatric surgical control groups. However, bariatric surgery by itself is not the cure to obesity. Bariatric surgery will fail to help the patient lose weight and achieve health improvement if the required lifelong changes, including proper diet, exercise, and eating habits are not followed meticulously. For patients who are unable to achieve adequate weight loss, bariatric procedures or surgery is a therapeutic option, after participating in a 12-month long medically-supervised program, the Medical Weight Management Program (MWMP), before bariatric surgery.

Patient Selection

Bariatric surgery involves removal and/or rearrange of patient's digestive systems and bringing about the associated changes in gut hormones, in addition to the restriction and malabsorption of food and nutrients. The two most common types of surgeries are vertical sleeve gastrectomy (VSG), also known as gastric sleeve, which is often performed laparoscopically, and Roux-en-Y Gastric Bypass (RYGB).

Patients are required to participate in MWMP to demonstrate their commitment to the necessary lifestyle modification to maximize surgical success. Failing to adhere to lifelong diet modification as well as macro- and micronutrient supplements will lead to adverse health consequences as well as weight regain. Since bariatric surgery is invasive and can significantly impact health, the patient needs a thorough preoperative evaluation, preoperative preparation, and postoperative care (see Attachment 1 for details) as well as long term follow up.

Consider patients with BMI ≥40 or BMI ≥35 in the presence of at least one severe obesity-related comorbidity who are unable to achieve adequate weight loss to prevent or treat clinically significant comorbidities with MWMP for bariatric surgery (See Table 14). Bariatric surgery should not be considered for glycemic or lipid control or for cardiovascular risk reduction independent of the BMI parameters. Additionally, bariatric surgery in advanced age above 65 years is still evolving but can be considered when comorbidity is severe.[23,24]

Potential Candidates for Bariatric Surgery
BMI ≥40, regardless of presence, absence, or severity of comorbidities
BMI ≥35 in the presence of at least one severe obesity-related comorbidity: • T2D or high risk for T2D (insulin resistance, prediabetes, and/or metabolic syndrome) • Uncontrolled HTN • MASLD/MASH • OSA or OHS • Osteoarthritis of the knee or hip • Urinary stress incontinence • Idiopathic intracranial hypertension • Gastroesophageal reflux disease (GERD) • Severe venous stasis disease • Impaired mobility due to obesity • Considerably impaired quality of life

Table 14: Selection Criteria[23,24]

- Patient understands and accepts the irreversible nature of certain bariatric surgeries
- Patient understands and accepts the lifetime dietary and nutritional requirements after bariatric surgery
- Sufficient time before Estimated Parole Release Date (EPRD) for surgery and postoperative recovery
- Patient participates in the 12-month long medically-supervised MWMP, followed by the RD and Primary Care Provider (PCP)

MANAGEMENT CONT'D

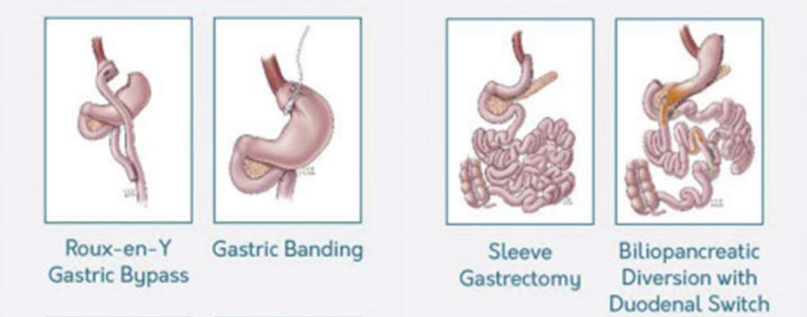

Figure 8: Surgical Bariatric Procedures[23]

The four surgical procedures shown are endorsed by the American Society of Metabolic and Bariatric Surgery (ASMBS). Laparoscopic sleeve gastrectomy comprises 70% of currently performed procedures, followed by laparoscopic gastric bypass (25%), adjustable gastric banding (3%), and duodenal switch (2%).

Exclusion criteria for bariatric surgery are related to surgical risk of the patient, their life expectancy, lack of cooperation in MWMP because of poor comprehensive, adherence, or motivation. See Table 15.

Risk Factors of Poor Outcomes After Bariatric Surgery
Severe cardiopulmonary disease with prohibitive anesthetic risks
Severe coagulopathy or decompensated cirrhosis
Remote or recent history for foreign body ingestion or insertion
Reversible or treatable endocrinopathy or other cause for weight gain
Screen for active tobacco, alcohol, and/or other substance use in the past 12-24 months
Dependence on tobacco, alcohol, and/or other substances
Uncontrolled mental health disorders, such as depression or psychosis
Uncontrolled and untreated eating disorder, such as binge-eating disorder
Any other uncontrolled or untreated mental health disorder limiting adherence to postoperative requirements
Lack of competence to comprehend the risks, benefits, expected outcomes, alternatives, and required lifestyle changes
Pregnancy, lactation, or plan for pregnancy within 2 years of potential surgical intervention
Severe gastroesophageal reflux disease (GERD), gastroparesis, inflammatory bowel disease (IBD)
Patient not seeking to lose weight
Patient unwilling and/or unable to commit to lifelong lifestyle changes following bariatric surgery

Table 15: Exclusion Criteria[23]

MANAGEMENT CONT'D

Preprocedural Checklist

Once a potential surgical candidate is identified, patient will follow with RD for education and counseling by on dietary/nutritional requirements and physical activity. The RD will discuss the necessity of long-term adherence to a post-bariatric surgery maintenance diet for patient to achieve and maintain their targeted weight loss and potential clinical improvements. See Attachment 1 for steps to refer patient for consideration of bariatric surgery.[23]

Preprocedural Checklist
☐ Patient continues ILI for preoperative weight loss, which can reduce liver volume and help improve the technical aspects of surgery in patients with hepatomegaly or hepatic steatosis
☐ Patient signs informed consent for MWMP Patient Agreement
☐ As part of MWMP, patient follows with RD on **Month 1**, **Month 3**, **Month 7**, and **Month 11**
☐ If patient does not lose at least 3% of baseline weight by **Month 3**, patient follows up with PCP on **Month 4** to address barriers to successful weight loss before surgery
☐ As part of MWMP, patient follows with PCP on **Month 6** and **Month 12**
☐ Patient successfully completes MWMP at 12-months if they have lost at least 10% of baseline weight
☐ Patient is eligible to receive perioperative care at CCWF, CHCF, or CMF for dietary and nutritional adherence
☐ Electronic Request for Service (eRFS) for bariatric surgery to Statewide Medical Authorization Review Team (SMART)
☐ Complete history and physical to document obesity-related comorbidities, causes of obesity, BMI, WC, weight loss history, commitment, and exclusions related to surgical risk
☐ Routine labs include fasting glucose and lipid panel, CBC, CMP, prothrombin time/INR, blood type, urinalysis, UDS; add pregnancy test for patients of childbearing potential
☐ Nutrient screening with iron studies, B12, folic acid (RBC folate, homocysteine, methylmalonic acid optional), and vitamin D (vitamins A and E optional); consider more extensive testing in patients undergoing malabsorptive procedures based on symptoms and risks
☐ Cardiopulmonary evaluation with electrocardiogram (ECG); if clinically indicated, echocardiography if cardiac disease or pulmonary hypertension suspected, sleep apnea screening with polysomnography, and/or deep vein thrombosis evaluation
☐ Gastrointestinal evaluation with gallbladder evaluation, *H. pylori* screening in areas of high prevalence, and upper endoscopy, if clinically indicated. Based on findings, bariatric surgeon recommendations include prophylactic cholecystectomy, postoperative prophylactic treatment for cholelithiasis, definitive treatment of *H. pylori*, and/or certain bariatric procedures/surgeries that would decrease the risk of postoperative GERD.
☐ Endocrine evaluation with A1C with suspected or diagnosed prediabetes or diabetes, TSH with symptoms or increased risk of thyroid disease, androgens with PCOS suspicion (total/bioavailable testosterone, DHEAS, 4-androstenedione), screening for Cushing's syndrome if clinically suspected (1-mg overnight dexamethasone test, 24-hour urinary free cortisol, 11 PM salivary cortisol)
☐ Age- and risk-appropriate cancer screening
☐ Clinical nutrition evaluation by RD
☐ Formal psychosocial-behavioral evaluation performed by a qualified behavioral health professional (i.e., licensed in a recognized behavioral health discipline, such as psychology, social work, psychiatry, or psychiatric nursing, and with specialized knowledge and training relevant to obesity, eating disorders, and/or bariatric procedures) to assess environmental, familial, and behavioral factors and risk for suicide
☐ Assessment for individual psychological support/counseling
☐ Documentation of medical necessity for bariatric surgery in EHRS based on indications/selection criteria
☐ Counseling for optimizing glycemic control, pregnancy avoidance within 2 years of surgery, tobacco cessation

Table 16: Preprocedural Checklist[23]

MANAGEMENT CONT'D

The Medical Weight Management Program (MWMP) is a multidisciplinary plan for perioperative management of eligible patients considering surgical intervention. It requires commitment from the patient, who will sign the MWMP Patient Agreement.

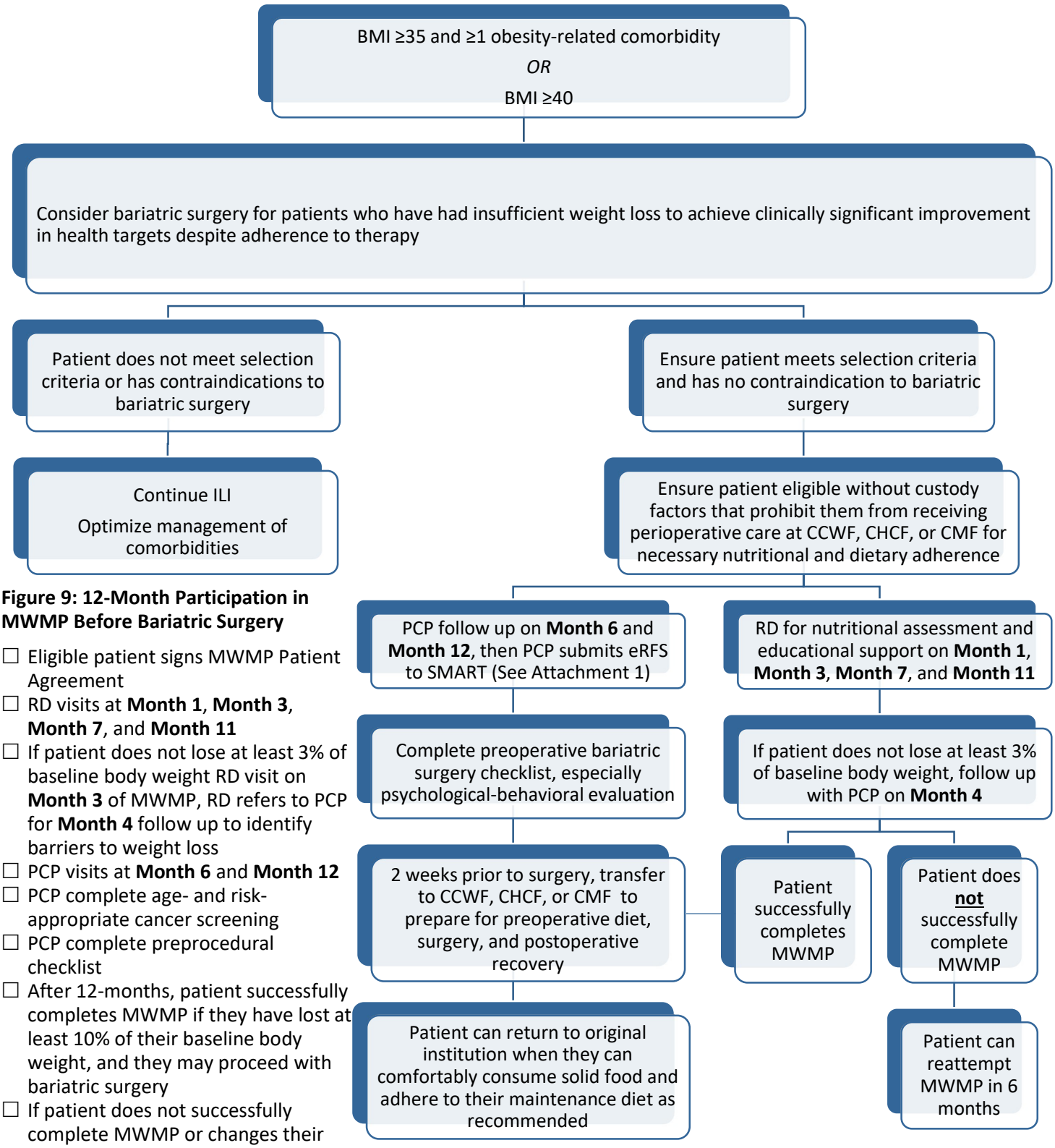

Figure 9: 12-Month Participation in MWMP Before Bariatric Surgery

- ☐ Eligible patient signs MWMP Patient Agreement
- ☐ RD visits at **Month 1**, **Month 3**, **Month 7**, and **Month 11**
- ☐ If patient does not lose at least 3% of baseline body weight RD visit on **Month 3** of MWMP, RD refers to PCP for **Month 4** follow up to identify barriers to weight loss
- ☐ PCP visits at **Month 6** and **Month 12**
- ☐ PCP complete age- and risk-appropriate cancer screening
- ☐ PCP complete preprocedural checklist
- ☐ After 12-months, patient successfully completes MWMP if they have lost at least 10% of their baseline body weight, and they may proceed with bariatric surgery
- ☐ If patient does not successfully complete MWMP or changes their mind about bariatric surgery, they can reattempt MWMP after 6 months

MANAGEMENT CONT'D

Medical Weight Management Program

12 months before bariatric surgery:

- ☐ Patient signs MWMP Patient Agreement.
- ☐ Month **1**, **Month 3**, **Month 7**, and **Month 11**: follow up with RD to review the patient's progress with weight loss and their weight loss goals
  - If patient has not lost at least 3% of baseline body weight at the **Month 3** follow up, RD refers to PCP for sooner appointment on **Month 4** to assess for barriers to weight loss.
- ☐ **Month 6** and **Month 12**: follow up with PCP
  - **Month 4:** PCP follow up if patient has not lost at least 3% of baseline body weight at the Month 3 follow up with RD
  - If the patient is not engaged in MWMP (e.g., patient has shown little to no improvement in weight and/or has had a change of mind about undergoing surgery), terminate MWMP; patient can request to be reconsidered in 6 months.
- ☐ Successful completion of MWMP after 12 months includes losing at least 10% of baseline weight.
- ☐ Medical evaluation within 30 days after successful completion of the MWMP
- ☐ Mental health evaluation
- ☐ If patient successfully completes MWMP, continues to meet criteria for bariatric surgery with no contraindications, follow the process for referral to bariatric surgery.
- ☐ PCP submits an electronic Request for Services (eRFS).
- ☐ Gather all case materials and submit package to Statewide Medical Authorization Review Team (SMART).
- ☐ SMART review

Preoperative Care

6 weeks before surgery:

- ☐ If applicable, tobacco abstinence

4 weeks before surgery:

- ☐ Coordinate transfer to designated institution (CCWF, CHCF, or CMF) where preoperative diet will be provided beginning two weeks prior to surgery date.
  - See Attachment 2 for the preoperative diet.[23]

Postoperative Care

After hospital discharge:

- ☐ Admit to CTC (CHCF and CMF), SNF (CCWF), or OHU (CHCF and CCWF) as appropriate for patient's medical, nursing, and dietary needs, for immediate post-hospital discharge care.
- ☐ Coordinate with RD for dietetic and nutritional comanagement with supervised, staged meal progression.
  - See Attachment 2 for the postoperative diet.
- ☐ Adjust chronic medication dosages. Consider consult with pharmacy as needed.
  - Many medications, including psychotropic medications, will need to be adjusted postoperatively due to altered absorption and rapid weight change.
  - Antiglycemic medication: consider stopping or reducing, depending on the change in blood sugar, which results from gut hormone changes and occurs even before weight loss.
  - Antihypertensive medication: consider changing the form or dose of medication.
  - For patients with a history of gout, continue prophylactic treatment.
- ☐ For patients with known cholelithiasis who have not had a prophylactic cholecystectomy, consider consulting bariatric surgeon regarding ursodeoxycholic acid for prophylactic treatment.
- ☐ Use standard multimodal analgesia regimen, but avoid nonsteroidal anti-inflammatory drugs (NSAIDs).
- ☐ Monitor for early complications postoperatively and promptly evaluate any of the following:
  - Temperature ≥100.4 °F (38.0 °C)
  - Chest pain and/or shortness of breath
  - Vomiting and/or severe abdominal pain
  - Redness or drainage at incision site
  - Severe pain, warmth, or redness in the calf
- ☐ Order appropriate vitamin and mineral supplements.
  - See Table 17 on next page.

MANAGEMENT CONT'D

Daily Intake	SG	RYGB	BPD/DS & SADI-S	LAGB
Multivitamin[1]	2 tablets			1 tablet
Iron[2]	60mg			18mg (without history of anemia) 60mg (patients of childbearing potential)
	Monitoring: *iron studies at baseline and after as needed*			
Folic acid	400-800µg oral daily (800-1000µg in patients of childbearing potential) **Monitoring:** *serum folate*			
Cobalamin (vitamin B12)	Parenteral (IM or SQ) 1000mg monthly Oral disintegrating tablet or liquid 350-1000mg daily if adequate absorption **Monitoring:** *serum vitamin B12 every 3-12 months (including methylmalonic acid with or without homocysteine)*			
Calcium citrate[2]	1200-1500mg		1800-2400mg	1200-1500mg
	Monitoring: *check bone density with DXA every 2 years; can consider 24-hour urinary calcium excretion at 6 months, then annually, as needed*			
Vitamin D[3]	3000 IU **Monitoring:** *check bone density with DXA every 2 years; serum 25-hydroxyvitamin D >30ng/mL; consider monitoring intact parathyroid hormone (iPTH) with 25-hydroxyvitamin D*			
Protein[4]	Minimum of 60g/day (1.2g/kg body weight or more)			
Water[4]	At least 64oz/day to ensure adequate hydration			

Table 17: Standard Supplementation and Intake after Bariatric Surgery

Consult RD and surgeon for vitamin and mineral supplement needs after surgery. After a malabsorptive procedure, screen for other fat-soluble vitamins (vitamin A, E, and K), copper, selenium, and zinc, if there are specific findings. SG = sleeve gastrectomy, RYGB = Roux-en-Y gastric bypass, BPD/DS = biliopancreatic diversion with duodenal switch, SADI-S = single anastomosis duodenoileal bypass with sleeve gastrectomy, LAGB = laparoscopic adjustable gastric banding

[1]*Multivitamin contains fat soluble vitamins, iron, copper, zinc, selenium, folic acid, thiamine, and vitamin B12; liquid or chewable for first 3-6 months after bariatric surgery, then switch to oral tablet*

[2]*Cannot take iron with calcium; take elemental iron and calcium supplements at least 2 hours apart*

[3]*Adequate intake to maintain a vitamin D level ≥30ng/mL*

[4]*Individualize based on patient needs*

MANAGEMENT CONT'D

Once patient demonstrates adherence to postoperative diet:

- ☐ Transfer to general population, if medically appropriate and clinically stable.
- ☐ Follow up with primary care team every other month (or more frequently as clinically indicated) until stable.
  - Check CBC, CMP, and iron at baseline and as needed.
  - Check TSH for patients on thyroid hormone replacement every 8 weeks postoperatively for the first year, then every 6-12 months (or more frequently as clinically indicated).
- ☐ Coordinate with RD involved in comanaging the patient.
  - Ensure the assigned housing will allow for administration of the required diet.
  - Advance diet as tolerated with the long-term goal of returning to the CDCR Heart Healthy Diet, based on recommendations from the bariatric surgeon and RD.
  - Patient remains at the designated institution (CCWF, CHCF, or CMF) until they can comfortably consume solid foods and demonstrate adherence to the diet as recommended. Once patients tolerate the CDCR Heart Healthy Diet, they can be transferred to other institutions.
  - See Attachment 2 for the postoperative diet.
- ☐ Coordinate postoperative follow up as recommended by bariatric surgeon.
- ☐ Continue monitoring for early to late complications.[23,24]

Early Postoperative Care
Pulmonary toilet, spirometry, VTE prophylaxis (may vary according to individual risk)
Protocol-derived staged meal progression supervised by RD
Healthy eating education by RD
Supplements with comanagement with RD and surgeon (See Table 17)
Maintain adequate hydration (usually >1.5L/d PO)
Monitor blood glucose for hypoglycemic symptoms
Monitor for symptoms and signs of thiamine deficiency and replenish as needed
Monitor for early complications
If clinically unstable, recommend transfer to higher level of care (HLOC)

Table 18: Postoperative Monitor for the First 30 Days After Bariatric Surgery

MANAGEMENT CONT'D

Early Complications

All surgical procedures have risks and complications, and bariatric surgery is no exception, although compared with many other forms of major surgery, it fares well in terms of perioperative morbidity and mortality. With advancement in technique, bariatric surgeries have become relatively safe, with perioperative mortality rate of 0.08% and early postoperative complication rate of 0.2-10%, when performed by experienced surgeons at established bariatric centers.

The most common early complications (within 30 days) include bleeding, infection, and venous thromboembolism (VTE). Cardiorespiratory complications can occur but are uncommon. Complications specific to the procedures include staple line leaks and bleeds, strictures, and internal hernias. Generally, patients with an early complication can present with acute abdominal pain and one or more alarming signs: tachycardia (≥100 beats per minute), fever (≥38°C), hypotension, respiratory distress with tachypnea and hypoxia, decreased urine output.[23,25]

- ☐ **Gastrointestinal leak:** Presents as abdominal pain, oral intolerance, and a "feeling of doom". The combination of fever, tachycardia, and tachypnea suggests an anastomotic leak or staple line leak after SG and RYGB. A leak may be confirmed by barium swallow or contrast computed tomography or surgical exploration.
  - Transfer to HLOC is recommended.
- ☐ **Hemorrhage:** Presents as tachycardia, decreased hematocrit, hematochezia, or melena.
  - Transfer to HLOC is recommended.
- ☐ **Surgical site infections:** Presents as unexplained fever, fluctuance, erythema, or drainage.
  - Contact surgeon's office.
- ☐ **Marginal ulcers:** Present as melena, hematochezia, hematemesis, and/or abdominal pain with obstructive symptoms. Many surgeons will instruct patients to take a proton-pump inhibitors for 3 to 12 months after surgery to help prevent the occurrence of marginal ulcers.
  - Transfer to HLOC is recommended. Advise patients to stop smoking and/or NSAIDs.
- ☐ **Nausea, vomiting, and poor oral intake:** It is not uncommon for patients to experience some nausea, vomiting, and mild food intolerance. Patients with mild gastrointestinal symptoms can be kept on a liquid diet for one to two weeks after the surgery and slowly transition to more solid forms of food over the next one to two months. Consider stricture if symptoms do not resolve.
  - Contact surgeon's office.
- ☐ **Small bowel obstruction (SBO):** Present as severe nausea, vomiting, cramping abdominal pain, obstipation (inability to pass flatus or stool). Patient can have tachycardia, orthostatic hypotension, reduced urine output, fever, abdominal distension, high-pitched "tinkling" sounds, or muffled bowel sounds.
  - Transfer to HLOC is recommended. Order plain radiographs, if feasible, to help confirm the diagnosis of bowel obstruction and the need for immediate intervention.
- ☐ **Venous thromboembolism (VTE):** As a leading cause of morbidity and mortality after bariatric surgery, VTE includes both DVT (deep vein thrombosis) and PE (pulmonary embolism). The main clinical manifestation includes leg swelling, pain, warmth, and erythema.
  - DVT prophylaxis is recommended for every patient post bariatric surgery and more than 80% of DVT events following bariatric surgery are diagnosed after hospital discharge. It is recommended that post discharge chemoprophylaxis be used for patients who are at high risk for DVT, such as those with a personal history of DVT, known hypercoagulable state, or limited ambulation.
  - Transfer to HLOC is recommended for suspected VTE.
- ☐ **Myocardial infarction (MI):** The incidence of a postoperative myocardial infarction after a bariatric operation is approximately 0.2%. The most common symptoms of acute MI include chest pain, associated shortness of breath, diaphoresis, weakness, and anxiety. Patients can present with sudden cardiac arrest.
  - There are certain predictors of major cardiac complications such as history of chronic coronary disease (especially prior MI or acute coronary syndrome), history of stroke or TIA, and diabetes mellitus requiring treatment with insulin. Refer to the Acute Chest Pain Care Guide for more information.
  - Transfer to HLOC is recommended for suspected acute coronary syndrome (ACS).
- ☐ **Pulmonary complications:** Atelectasis, pneumonia, or acute respiratory failure. Measures to help reduce the incidence of pulmonary complication include early ambulation and incentive spirometry after surgery, preoperative identification of the presence of significant OSA and use of CPAP, if clinically indicated.
- ☐ **Gout flare**: Some patients with hyperuricemia experience severe fluctuations in serum uric acid levels and acute gout attacks in the short-term following bariatric surgery.[23,25]

MANAGEMENT CONT'D

Late Complications

Late complications (after 30 days) following bariatric surgery vary based on the procedure performed and can be as high as 40%. Usually, a late complication is more insidious, and patients may only have abdominal pain or diarrhea. These late complications can include nutrient deficiencies (more common in malabsorptive procedures), stricture, marginal ulcer, bowel obstruction, failure to lose weight, and weight regain. In patients undergoing gastric bypass and sleeve gastrectomy, reactive hypoglycemia and dumping syndrome can occur years after surgery.[23,25]

- ☐ Serious late complications include bleeding, intestinal obstruction, and perforation. Persistent nausea and vomiting following bariatric surgery indicate possible internal hernia, volvulus, gastrointestinal stenosis, intestinal ischemia, or marginal ulcer. In addition, any signs of intestinal bleeding, such as hematemesis, melena, and hematochezia, suggest intra-abdominal complications.
  - Transfer to HLOC is recommended if these complications are suspected.
- ☐ There are also some late complications that present subacutely, such as cholelithiasis, nephrolithiasis, ventral incisional hernia, and change in bowel habits, which are common after bariatric surgery.
- ☐ **Dumping syndrome** is a common adverse event after Roux-en-Y gastric bypass surgery. About 85% of gastric bypass patients will experience dumping syndrome at some point after surgery. The symptoms can range from mild to severe. Gastrointestinal symptoms include abdominal pain, bloating, borborygmi, nausea, and diarrhea. Vasomotor symptoms include flushing, palpitations, tachycardia, hypotension, and presyncope.
  - Dumping usually occurs due to poor food choices with ingestion of refined sugars (including high fructose corn syrup), high glycemic carbohydrates, dairy products, some fats, and fried foods.
  - Dietary adherence is the primary treatment. Advise patients to consume a diet containing high-fiber, complex carbohydrates, and protein-rich foods. Eat small frequent meals slowly. Separate solid from liquid intake by 30 minutes.
  - Follow up with bariatric surgeon for persistent dumping syndrome despite dietary adherence.
- ☐ **GERD** and **Barrett's esophagus**
  - Manage with proton pump inhibitor or conversion to Roux-en-Y gastric bypass for refractory cases.
  - Consider screening for Barrett's esophagus, if clinically indicated.
- ☐ **Nutrient deficiency**
  - Biliopancreatic diversion with duodenal switch is associated with a greater risk of vitamin D deficiency and secondary hyperparathyroidism, so higher doses of calcium and vitamin D are recommended compared to other bariatric procedures.
- ☐ **Weight regain** occurs in some patients, especially those with BMI ≥50 kg/m^2 at the time of the initial operation. It is often caused by progressive noncompliant eating, other behavioral habits, gradual enlargement of the gastric pouch among other changes in gastrointestinal tract.[23,25]

	Type of Bariatric Procedure	Complications
Restrictive and Malabsorptive	Roux-en-Y gastric bypass	reactive hypoglycemia, dumping syndrome, bile reflux, internal hernias, nutrient deficiency, loose stools, bowel obstruction, marginal ulcer, sarcopenia
	One anastomosis gastric bypass	
	Biliopancreatic diversion	protein-calorie malnutrition, high risk of nutrient deficiency, especially vitamin D deficiency causing secondary hyperparathyroidism and osteoporosis
	Biliopancreatic diversion with duodenal switch	
	Single anastomosis duodenoileal bypass/sleeve	lower risk of nutrient deficiency
Restrictive	Laparoscopic sleeve gastrectomy	GERD, reactive hypoglycemia, dumping syndrome
	Gastric band	GERD, band slippage, band erosion, pouch dilation
	Laparoscopic/endoscopic gastric plication	GERD
	Endoscopic sleeve gastroplasty	GERD, perigastric leak, upper gastrointestinal bleeding
	Intragastric balloon	GERD, gastric ulcer, SBO from balloon leak, pancreatitis

Table 19: Complications by Type of Bariatric Procedure[23,25]

All types of procedures have a risk of weight regain and, to variable extents, nutrient deficiency.

MANAGEMENT CONT'D

Chronic Care After Bariatric Surgery

Bariatric surgery in appropriately selected patients substantially reduces weight to treat obesity and obesity-related comorbidities. The extent of weight loss, quality of life, and resolution of obesity-related comorbidities varies from one procedure to another. After bariatric surgery, schedule PCP follow up every 6 to 12 months. Remind patient of the following:

- Drink 64 oz of water every day.
- Eat smaller meals more often throughout the day.
- Encourage protein intake of 1.2 g/kg body weight or more based on individual assessment.
- Track food intake to form healthy habits and understand food intake.
- Limit foods and drinks with added sugar.
- Limit carbonated and caffeinated drinks.
- Limit spicy and acidic foods specifically for patients who have had RYGB.
- Avoid concentrated sweets to minimize dumping syndrome.

Chronic Primary Care After Bariatric Surgery
Monitor progress with weight loss and improvement/resolution of obesity-related comorbidities
Adjust/titrate doses or stop medication, depending on weight response to surgery; consider consulting pharmacy if needed
Monitor adherence to diet and nutrition requirements
Monitor for sarcopenia, protein-energy malnutrition, and adherence to physical activity/exercise
Monitor for late complications
Avoid nonsteroidal anti-inflammatory drugs (NSAIDs)
Avoid tobacco, alcohol, and/or other substance use
Monitor for nutrient deficiencies: thiamine, copper, selenium, zinc, vitamin K, vitamin E (See Table 21)
Check appropriate labs if nutrient deficiency suspected
Check CBC, CMP at each visit every 6-12 months
Check iron panel at baseline and as needed
Check lipid panel based on risk and lipid-lowering therapy every 6-12 months
Check A1C every 6-12 months (or more frequently as clinically indicated)
Check TSH for patients on thyroid hormone replacement every 8 weeks for the first year, then every 6-12 months
Check serum B12 including methylmalonic acid with or without homocysteine or more frequently for at risk patients
Check folic acid as clinically indicated
Check 25-hydroxyvitamin D and include intact parathyroid hormone (iPTH) as clinically indicated
Check vitamin A at baseline, then every 6-12 months if indicated by surgeon
Consider gout and gallstone prophylaxis in appropriate patients; consider consulting surgeon
Treat GERD and consider screening for Barrett's esophagus as clinically indicated
Bone density scan every 2 years to monitor for osteoporosis

Table 20: Long-Term Monitoring After Bariatric Surgery[23,24,25]

Follow up with primary care team every 6-12 months (or more frequently as clinically indicated).

MANAGEMENT CONT'D

	Micronutrient	Complications
Water-Soluble	Vitamin B12	megaloblastic anemia causing fatigue and weakness
	Folate	megaloblastic anemia causing fatigue and weakness
	Thiamine	weakness, dizziness, blurred vision, difficulty walking, peripheral neuropathy of hands and toes; Wernicke encephalopathy presents as mental confusion, memory loss, nystagmus, unstable gait
	Vitamin C	bleeding gums, petechiae, ecchymoses, hyperkeratosis, coiled hairs, impaired wound healing, arthralgias
Fat-Soluble	Vitamin D	secondary hyperparathyroidism, osteoporosis; can lead to hypocalcemia with hypophosphatemia resulting in osteomalacia
	Vitamin A	corneal dryness leading to keratinization, night blindness, dry skin, poor wound healing; late stage progresses to permanent blindness; can coexist with protein-energy malnutrition
	Vitamin E	ataxia, myopathy, vision loss; late stage leads to sensory motor neuropathy with loss of position, vibration sense, and reflexes
	Vitamin K	coagulation disorder manifesting as increased prothrombin time and international normalized ratio (INR), with normal levels of fibrinogen and platelets
Mineral	Iron	microcytic hypochromic anemia causing fatigue, apathy, paleness, weakness, breathing difficulty upon exertion, cold intolerance
	Calcium	osteoporosis, cataracts, dental change
	Magnesium	muscle cramps, spasms, tremor, arrhythmia
	Copper	hematological (macrocytic anemia) and irreversible neurological sequelae (myelopathy, muscle weakness, ataxia, paresthesia)
	Selenium	multiple endocrinopathies including thyroid disorders, anemia, constipation, cardiomyopathy, heart failure, pericardial effusion, cognitive decline
	Zinc	skin lesions, slow wound healing, susceptibility to infection, diarrhea, night blindness, reduced taste and smell acuity, hair loss, impotence

Table 21: Findings Suspicious of Micronutrient Deficiency[23,25,26]

Request supplements as required medications for patients upon community reentry and transition to Medi-Cal with consultation of pharmacy and CME.

Mental Health After Bariatric Surgery

Although many metabolic improvements, such as resolution of T2D and improvement of hypertension, can be achieved after bariatric surgery, mental health outcomes are less certain. It has been observed that some patients, after initial improvement of psychiatric symptoms and psychosocial functioning, demonstrated progressive mental health decline approximately 2 years after bariatric surgery. Examples of these issues include depression, binge-eating disorders, and anxiety disorders. Two high-risk psychiatric complications are suicide and SUD.

While a variety of pre- and postoperative factors increase the risk of suicidality, the strongest predictor of postoperative risk was a lifetime history of suicide ideation and/or self-injurious behavior. Thus, for effective prevention of postoperative self-harm and suicide, the preoperative assessment by an expert mental health professional is critical. Refer to MH for emergence of mental health disorders and/or suicidality.

SUD after bariatric surgery tends to develop in about 1-2 years after surgery. Risk factors for postoperative SUD include the type of surgery, personal or family history of SUD, history of early trauma, pre-existing mental health disorders, low social support, younger age, male, and alcohol use. Refer to ISUDT for evaluation and treatment.

MONITORING AND DOCUMENTATION

At follow-up clinical encounters, document the following:

- Accurate BMI and WC in EHRS when overweight and obesity is addressed, even if patient has not signed the Patient Agreement(s).
- Percentage of weight, BMI, and WC change compared to baseline, if applicable.
- Change in A1C and triglyceride, if applicable.
- Annual NIDA- Quick Screen/NIDA-MA for SUD screening with appropriate treatment and follow-up, as clinically appropriate.
- Annual PHQ-2/PHQ-9 for depression screening. Refer to Mental Health if clinically appropriate.
- Annual GAD-7 for anxiety screening. Refer to Mental Health if clinically appropriate.
- Annual SCOFF Questionnaire for eating disorder screening. Refer to Mental Health if clinically appropriate.
- Accurate documentation of obesity-related comorbidities to determine eligibility for use of incretin mimetics (See Eligibility Criteria of Obesity-Related Comorbidities for Incretin Mimetics Table12).

MONITORING AFTER BARIATRIC SURGERY

- Inquire about ongoing ILI adherence and document stage of meal progression.
- Inquire about ongoing adherence to supplements.
- Assess for complications after bariatric surgery, include de novo, worsening, or severe GERD, acute gout, or symptomatic cholelithiasis. Comanage with bariatric surgeon.
  - Manage GERD with proton pump inhibitor or conversion to Roux-en-Y gastric bypass for refractory cases.
  - Consider screening for Barrett's esophagus, if clinically indicated.
- Check CBC, CMP, and, if applicable, iron and other potential nutritional deficiencies.
- Check bone density with DXA every 2 years.
- Assess for sarcopenia and/or malnutrition, including protein-calorie malnutrition, if clinically indicated.
- Dose titrate medications for obesity-related comorbidities, which can improve with weight loss.
- Consider comanagement of weight regain with bariatric surgeon and RD.[23,25]

MONITORING AND DOCUMENTATION CONT'D

MASSIVE WEIGHT LOSS

Massive weight loss typically means losing at least 100 pounds or more than 50% of excess weight. According to the American Society of Plastic Surgeons (ASPS) 2017 Practice Parameter for Surgical Treatment of Skin Redundancy for Obese and Massive Weight Loss Patients, there are several procedures to remove hanging excess skin and fat after massive weight loss to increase patient comfort and facilitate the ease of exercise and further weight loss. Deformities associated with massive weight loss vary greatly depending on the patients' body type, their fat deposition pattern, and the amount of weight gained or lost. These deformities can lead to inability to exercise, impaired ambulation, chronic back, neck and shoulder pain. Rashes and skin irritation can occur on the opposing surfaces of the skin, then secondary bacterial or fungal infections can complicate these skin rashes. Therefore, difficulty with hygiene causing complications of uncontrolled intertrigo, recurrent or severe skin and soft tissue infections, and skin necrosis also determine medical necessity for the excision of excessive skin and subcutaneous tissue after massive weight loss.

- Functional panniculectomy eliminates the large hanging abdominal panniculus and its associated symptomatology but can leave redundant tissue known as "dog ears" posterior to the excision. However, abdominoplasty and circumferential lipectomy are considered cosmetic procedures which do not meet medical necessity criteria (Title 15).
- Infrequently, a hernia repair can accompany functional panniculectomy, if clinically indicated by the surgeon.
- Functional reduction mammaplasty removes excess hanging breast tissue. However, mastopexy or breast augmentation are considered cosmetic procedures and do not meet medical necessity criteria (Title 15).
- Most surgeries for excess skin of the arms, thighs, or buttocks are considered cosmetic as these procedures do not improve functional impairments. Only in rare cases of recurrent skin or soft tissue infections would brachioplasty be considered as functional surgery.

Eligibility for functional panniculectomy

- Patient has lost at least 100 pounds.
- Patient maintains a stable weight for 6 months. For patients who have had post-bariatric surgery, stable weight occurs at least 18 months after surgery.
- Panniculus covers at least mons pubis (ASPS Grade I).
- Provider must document that the patient has a history of complications from massive weight loss including recurrent rashes or irritation in the skin folds refractory to medical management over a period of at least 3 months, chronic skin or soft-tissue infections that have required medically supervised and documented antibiotic or antifungal therapy over a period of at least 3 months, chronic panniculitis refractory to non-surgical management over a period of at least 3 months, or chronic back pain that have persisted despite an adequate trial of non-surgical management including physical therapy over a period of at least 3 months and/or a functional impairment in activities of daily living, such as walking, climbing stairs, sexual activity, bathing or showering, and getting dressed.
  - Localized adiposity – fat pad: ICD-10 Code E65
  - Lymphedema: ICD-10 Code I89.0
  - Hypertrophy of breast: ICD-10 Code N62
  - Cellulitis – trunk: ICD-10 Code L03.319
  - Cellulitis of axilla & upper arm: ICD-10 Code L03.111 – L03.114
  - Cellulitis of lower limb: ICD-10 Code L03.115, L03.116
  - Intertrigo: ICD-10 Code L26, L30.4, L53.8
  - Shoulder pain: ICD-10 Code M25.511 – M25.519
  - Neck pain: ICD-10 Code M54.2
  - Pain in thoracic spine: ICD-10 Code M54.6
  - Lumbago: ICD-10 Code M54.5
  - Diastasis recti: ICD-10 Code M62.00, M62.08
  - Panniculitis: ICD-10 Code M79.3

There are very few alternative treatment options for those patients who are not surgical candidates for body contouring surgery. The excess skin and folds cannot be corrected by diet, weight loss, or exercise.

MONITORING AND DOCUMENTATION CONT'D

Although obesity-related comorbidities improve with weight loss, patients may not have complete resolution, so screen for the following and optimize management prior to surgery:

- T2D
- OSA
- Mental health symptoms, such as depression and anxiety
- Nutritional status and nutritional deficiencies due to bariatric surgery
- Abdominal wall hernias – Patients that undergo open gastric bypass procedures have a high risk of incisional hernia development. Hernias are typically not repaired until sufficient weight loss has occurred to decrease intra-abdominal pressure. Once sufficient weight loss occurs, small-to-moderate hernia repairs are often combined with body contouring procedures. Large hernia repairs need to be staged.
- Preoperative diagnostic testing:
  - CBC
  - CMP, including calcium, magnesium, and phosphorus
  - PT/PTT/INR
  - Albumin and prealbumin
  - Iron studies including TIBC
  - Vitamin B12
  - Folate
  - A1C
  - Serum hCG in patients of childbearing potential
  - Chest X-ray if clinically indicated
  - ECG if clinically indicated

Recovery time and physician follow up visits will vary depending on the extent of the procedure(s). Patients are typically seen on a weekly basis until all drains are removed and seromas are resolved, and then monthly for 3 months. Additional follow-up visits are usually scheduled at 6 months and 1 year.

Post-operative complications depend on the type and extent of the surgery and include:

- Seroma
- Dehiscence
- Infection
- Hematoma
- Skin necrosis
- Lymphedema
- Deep vein thrombosis/pulmonary embolus
- Mental health symptoms
- Residual localized fat and/or fat necrosis leading to contour irregularities
- Temporary or permanent numbness
- Unattractive or hypertrophic scarring
- Malposition of the umbilicus
- Relapse or recurrent laxity
- Folds and wrinkles
- Additional surgical procedures[23,27]

Patients who have had massive weight loss and who meet the eligibility criteria for surgical treatment of skin redundancy can be referred by their PCP to the Statewide Medical Authorization Review Team (SMART) for evaluation and consideration for functional panniculectomy and/or functional reduction mammaplasty.

MONITORING AND DOCUMENTATION CONT'D

PERIOPERATIVE MANAGEMENT

Perioperative cardiac assessment determines when noncardiac surgery (NCS) can proceed or when a pause for further evaluation is warranted by estimating the likelihood of perioperative adverse outcomes. The Revised Cardiac Risk Index (RCRI) is a simple, validated, and commonly used cardiovascular risk calculator to assess perioperative risk of major cardiac complications. Furthermore, functional capacity is an important predictor of risk of adverse cardiovascular events after NCS, so using a structured assessment of functional capacity with the Duke Activity Status Index (DASI) will stratify these risks. Lastly, among patients who are ≥65 years old as well as <65 years old with perceived frailty, preoperative frailty assessment using the FRAIL Scale also guides management.

Preoperative Risk Calculators

RCRI	
High-risk surgery *Intraperitoneal; vascular intrathoracic; suprainguinal*	+1
History of ischemic heart disease *History of MI; history of positive exercise test; current chest pain considered due to myocardial ischemia; use of nitrate therapy or ECG with pathological Q waves*	+1
History of symptomatic HF *Pulmonary edema, bilateral rales, or S3 gallop; paroxysmal nocturnal dyspnea; chest X-ray showing pulmonary vascular redistribution*	+1
History of cerebrovascular disease *Prior TIA or stroke*	+1
Preoperative treatment with insulin	+1
Preoperative creatinine ≥2 mg/dL	+1

DASI	
Takes care of self *such as eating, dressing, bathing, using the toilet*	+2.75
Walks indoors	+1.75
Walks 1-2 blocks on level ground	+2.75
Climbs a flight of stairs or walks up a hill	+5.5
Runs a short distance	+8
Does light work *such as dusting, washing dishes*	+2.7
Does moderate work *such as sweeping floors, carrying bags and boxes*	+3.5
Does heavy work *such as scrubbing floors, lifting or moving heavy objects*	+8
Does yardwork *such as raking leaves, weeding, pushing a power mower*	+4.5
Has sexual relations	+5.25
Participates in moderate recreational activities *such as golf, bowling, dancing, doubles tennis, throwing a baseball or football*	+6
Participates in strenuous sports *such as swimming, singles tennis, football, basketball*	+7.5

FRAIL	
How much of the time during the past 4 weeks did you feel tired? *All of the time or most of the time*	+1
By yourself and not using aids, do you have any difficulty walking up 10 steps without resting? *Yes*	+1
By yourself and not using aids, do you have any difficulty walking a couple of blocks (e.g., several hundred yards)? *Yes*	+1
Have you had ≥5% weight loss in the past year? *Yes*	+1
Do you have one of the following illnesses? How many? *5 or more of the following illnesses is +1 point: hypertension, diabetes, cancer (other than minor skin cancer), chronic lung disease, ACS/MI, HF, angina, asthma, arthritis, stroke/TIA, and CKD*	+1

Table 22: Preoperative Risk Calculators[28]

RCRI score 0-1 suggests lower perioperative risk and >1 suggests increased perioperative risk;
DASI score >34 suggests lower perioperative risk and score ≤34 suggests increased perioperative risk;
FRAIL score 0 = robust health status, 1-2 = pre-frail, and 3-5 = frail.

MONITORING AND DOCUMENTATION CONT'D

Perform preoperative diagnostic testing judiciously in patients with overweight/obesity undergoing NCS, especially those at lower risk, and only among patients in whom testing would be appropriate independent of planned surgery.

- Among patients with known CVD or age ≥65 years old or age ≥45 with symptoms suggestive of CVD undergoing an elevated-risk NCS, consider measuring BNP, NT-proBNP, or cardiac troponin (cTn) before NCS to supplement the evaluation of perioperative risk.
- Among patients with CAD, significant arrhythmia, peripheral artery disease, cerebrovascular disease, other significant structural heart disease, or symptoms of CVD (such as chest discomfort/pain, dyspnea, undiagnosed palpitations, tachycardia, syncope, or murmurs), who will undergo an elevated-risk NCS, check a preoperative resting 12-lead ECG to establish a preoperative baseline and guide perioperative management.
    - If the preoperative ECG exhibits new abnormalities (such as ST-segment elevation, ST depression, T-wave inversions, left ventricular hypertrophy, significant pathologic Q-waves, Mobitz type II or higher atrioventricular block, bundle branch block, QT prolongation, or atrial fibrillation/atrial flutter) further evaluation will refine assessment of cardiovascular risk.
- Among patients with overweight/obesity who have new/worsening dyspnea, physical examination findings of volume overload, suspected worsening ventricular dysfunction, or other change in clinical status, perform a preoperative evaluation of LV function, such as a TTE.
- For patients with CAD undergoing an elevated risk NCS with poor or unknown functional capacity and elevated risk for perioperative cardiovascular events based on RCRI, consider stress testing or coronary computed tomography angiography (CCTA) to evaluate for inducible myocardial ischemia.
    - Routine stress testing and CCTA before NCS is not recommended for patients who are at low risk for perioperative cardiovascular events, have adequate functional capacity (i.e., METs ≥4 or DASI >34) with stable symptoms, or will be undergoing low-risk procedures.
    - If clinically indicated, recommend appropriate preoperative comanagement with cardiology based on results of stress test or CCTA.
    - In patients with hemodynamically significant left main coronary artery stenosis of ≥50% who plan an elective NCS, consider deferral of surgery and comanagement with cardiology for coronary revascularization.

MEDICATION TABLES

Glucagon-like Peptide-1 Receptor Agonist

MEDICATION	DOSING*	ADVERSE EFFECTS* DRUG INTERACTIONS	COMMENTS*
Semaglutide (OZEMPIC®) Injection soln: 0.25 mg, 0.5 mg, 1 mg, 2 mg $$$$$ Nonformulary with use criteria	**Dosing:** Initially, 0.25 mg subcutaneously once weekly x 4 weeks, then 0.5 mg weekly x 4 weeks, then 1 mg weekly x 4 weeks, then 1.7 mg weekly x 4 weeks; maintenance dose of 2.4 mg (recommended) or 1.7 mg once weekly **Max dose:** 2.4 mg/week **Renal Impairment:** No dosage adjustment needed **Hepatic impairment:** No dosage adjustment needed	**Adverse reactions:** nausea, diarrhea, constipation, vomiting, abdominal pain, decreased appetite, dyspepsia, fatigue, heart rate increase • Serious but less common: pancreatitis, gastroparesis, acute kidney injury, retinopathy, cholelithiasis, AV block, angioedema, anaphylactoid reactions • Note that suicidal behavior and ideation have been reported. Monitor patients treated with semaglutide for the emergence or worsening of depression, suicidal thoughts, or behavior, and/or any unusual changes in mood or behavior. Discontinue semaglutide in those who experience suicidal thoughts or behaviors and refer emergently or urgently to mental health as clinically appropriate. Avoid in patients with a history of suicidal attempts or active suicidal ideation. **Drug interactions:** • Chloroquine, sulfonylureas, insulin, and hydroxychloroquine delay in gastric emptying and potential to reduce the rate of absorption of concomitantly administered oral medications • When initiating semaglutide, consider reducing the dose of concomitantly administered insulin secretagogues (e.g., sulfonylureas) or insulin to reduce the risk of hypoglycemia.	**Nonformulary Use Criteria:** • As an adjunct to improve glycemic control in patients with uncontrolled T2D, especially for those with overweight/obesity • To reduce the risk of major adverse cardiovascular events in patients with comorbid T2D and clinical ASCVD/high risk for ASCVD, especially for those with overweight/obesity • To reduce the risk of sustained eGFR decline, end-stage kidney disease, and cardiovascular death in patients with T2D and chronic kidney disease (CKD), especially for those with overweight/obesity **Black Box Warning:** Semaglutide causes dose-dependent and treatment-duration-dependent thyroid C-cell tumors at clinically relevant exposures in animal studies. Relevance in humans has not been determined. **Contraindications:** Personal or family history of Medullary Thyroid Carcinoma or patients with Multiple Endocrine Neoplasia Syndrome type 2; serious hypersensitivity reaction to semaglutide or any of the product components **Caution in the following:** • Consider holding a week before elective procedure/surgery; if available follow recommendation from surgical team; eConsult endocrinologist if needed. • Concomitant use with insulin or insulin secretagogues (e.g., sulfonylureas); history of diabetic retinopathy, pancreatitis, hepatic impairment, gallbladder disease, cholelithiasis, renal impairment • When using concomitantly with insulin, administer as separate injections. Do not mix together. Do not give injections adjacent to each other.

Bold = Formulary *See prescribing information for complete description of dosing, adverse effects, drug interactions, precautions, and contraindications.
The cost scale $-$$$$$ represents the relative cost of acquisition of medication only. Frequency and complexity of medication administration (institution workload, effect on adherence) should be considered when determining overall cost-effectiveness of treatment. *See prescribing information for complete description of dosing, adverse effects and drug interactions
Drug-Drug Interaction Checker

MEDICATION TABLES CONT'D

Glucagon-like Peptide-1 Receptor Agonist

MEDICATION	DOSING*	ADVERSE EFFECTS* DRUG INTERACTIONS	COMMENTS*
Semaglutide (Wegovy®) Injection soln: 0.25 mg, 0.5 mg, 1 mg, 1.7 mg, 2.4 mg $$$$$ Nonformulary with use criteria	**Dosing:** Initially, 0.25 mg subcutaneously once weekly x 4 weeks, then 0.5 mg weekly x 4 weeks, then 1 mg weekly x 4 weeks, then 1.7 mg weekly x 4 weeks; maintenance dose of 2.4 mg (recommended) or 1.7 mg once weekly **Max dose:** 2.4 mg/week **Renal Impairment:** No dosage adjustment needed **Hepatic impairment:** No dosage adjustment needed	**Adverse reactions:** nausea, diarrhea, constipation, vomiting, abdominal pain, decreased appetite, dyspepsia, fatigue, heart rate increase • Serious but less common: pancreatitis, gastroparesis, acute kidney injury, retinopathy, cholelithiasis, AV block, angioedema, anaphylactoid reactions • Note that suicidal behavior and ideation have been reported. Monitor patients treated with semaglutide for the emergence or worsening of depression, suicidal thoughts, or behavior, and/or any unusual changes in mood or behavior. Discontinue semaglutide in those who experience suicidal thoughts or behaviors and refer emergently or urgently to mental health as clinically appropriate. Avoid in patients with a history of suicidal attempts or active suicidal ideation. **Drug interactions:** • Chloroquine, sulfonylureas, insulin, and hydroxychloroquine delay in gastric emptying and potential to reduce the rate of absorption of concomitantly administered oral medications • When initiating semaglutide, consider reducing the dose of concomitantly administered insulin secretagogues (e.g., sulfonylureas) or insulin to reduce the risk of hypoglycemia.	**Nonformulary Use Criteria:** • To reduce the risk of major adverse cardiovascular events in patients with comorbid clinical ASCVD and overweight/obesity • For the treatment of noncirrhotic MASH with moderate to advanced liver fibrosis (consistent with stages F2 to F3 fibrosis) • As an adjunct to improve heart failure symptoms and functional capacity in patients with comorbid heart failure with preserved ejection fraction (HFpEF) and obesity, who are optimized on guideline-directed medication therapy for heart failure including SGLT2 inhibitor **Black Box Warning:** Semaglutide causes dose-dependent and treatment-duration-dependent thyroid C-cell tumors at clinically relevant exposures in animal studies. Relevance in humans has not been determined **Contraindications:** Personal or family history of Medullary Thyroid Carcinoma or patients with Multiple Endocrine Neoplasia Syndrome type 2; serious hypersensitivity reaction to semaglutide or any of the product components **Caution in the following:** • Consider holding a week before elective procedure/surgery; if available follow recommendation from surgical team; eConsult endocrinologist if needed. • Concomitant use with insulin or insulin secretagogues (e.g., sulfonylureas); history of diabetic retinopathy, pancreatitis, hepatic impairment, gallbladder disease, cholelithiasis, renal impairment • When using concomitantly with insulin, administer as separate injections. Do not mix together. Do not give injections adjacent to each other.

Bold = Formulary *See prescribing information for complete description of dosing, adverse effects, drug interactions, precautions, and contraindications.
The cost scale $-$$$$$ represents the relative cost of acquisition of medication only. Frequency and complexity of medication administration (institution workload, effect on adherence) should be considered when determining overall cost-effectiveness of treatment. *See prescribing information for complete description of dosing, adverse effects and drug interactions
Drug-Drug Interaction Checker

MEDICATION TABLES CONT'D

Dual Glucose-Dependent Insulinotropic Polypeptide and Glucagon-Like Peptide-1 Receptor Agonist

MEDICATION	DOSING*	ADVERSE EFFECTS* DRUG INTERACTIONS	COMMENTS*
Tirzepatide (Mounjaro®) Injection: 2.5 mg, 5 mg, 7.5 mg, 10 mg, 12.5 mg, 15 mg $$$$$ Nonformulary with use criteria	**Dosing:** Initially, 2.5 mg subcutaneously once weekly x 4 weeks, then 5 mg once weekly. May increase dose by 2.5 mg/week after at least 4 weeks on the current dose **Maintenance dose:** 5, 10, or 15 mg subcutaneously once weekly **Max dose:** 15 mg subcutaneously once weekly **Renal Impairment:** No dosage adjustment needed **Hepatic impairment:** No dosage adjustment needed	**Adverse reactions:** nausea, diarrhea, constipation, vomiting, abdominal pain, decreased appetite, dyspepsia, fatigue, injection site reactions • Serious but less common: pancreatitis, gastroparesis, acute kidney injury, retinopathy, cholelithiasis, AV block, hypersensitivity reaction, angioedema • Note that suicidal behavior and ideation have been reported with other weight management products. Monitor patients treated with tirzepatide for the emergence or worsening of depression, suicidal thoughts, or behavior, and/or any unusual changes in mood or behavior. Discontinue tirzepatide in those who experience suicidal thoughts or behaviors and refer emergently or urgently to mental health as clinically appropriate. Avoid in patients with a history of suicidal attempts or active suicidal ideation. **Drug interactions:** • Chloroquine, insulin, warfarin, hydroxychloroquine, sulfonylureas, oral contraceptives • When initiating tirzepatide, consider reducing the dose of concomitantly administered insulin secretagogues (e.g., sulfonylureas) or insulin to reduce the risk of hypoglycemia. • Coadministration with other tirzepatide-containing products or with any GLP-1 receptor agonist is not recommended.	**Nonformulary Use Criteria:** • As an adjunct to improve glycemic control in patients with uncontrolled T2D, especially for those with overweight/obesity **Black Box Warning:** Tirzepatide causes dose-dependent and treatment-duration-dependent thyroid C-cell tumors at clinically relevant exposures in animal studies. Relevance in humans has not been determined. **Contraindications:** Personal or family history of Medullary Thyroid Carcinoma or patients with Multiple Endocrine Neoplasia Syndrome type 2; serious hypersensitivity reaction to tirzepatide or any of the product components **Caution in the following:** • Consider holding a week before elective procedure/surgery; if available follow recommendation from surgical team; eConsult endocrinologist if needed. • Concomitant use with insulin or insulin secretagogues (e.g., sulfonylureas); history of diabetic retinopathy, pancreatitis, hepatic impairment, gallbladder disease, cholelithiasis, renal impairment • When using concomitantly with insulin, administer as separate injections. Do not mix together. Do not give injections adjacent to each other.

Bold = Formulary *See prescribing information for complete description of dosing, adverse effects, drug interactions, precautions, and contraindications.
The cost scale $-$$$$$ represents the relative cost of acquisition of medication only. Frequency and complexity of medication administration (institution workload, effect on adherence) should be considered when determining overall cost-effectiveness of treatment. *See prescribing information for complete description of dosing, adverse effects and drug interactions
Drug-Drug Interaction Checker

MEDICATION TABLES CONT'D

Dual Glucose-Dependent Insulinotropic Polypeptide and Glucagon-Like Peptide-1 Receptor Agonist

MEDICATION	DOSING*	ADVERSE EFFECTS* DRUG INTERACTIONS	COMMENTS*
Tirzepatide (Zepbound®) Injection: 2.5 mg, 5 mg, 7.5 mg, 10 mg, 12.5 mg, 15 mg $$$$$ Nonformulary with use criteria	**Dosing:** Initially, 2.5 mg subcutaneously once weekly x 4 weeks, then 5 mg once weekly. May increase dose by 2.5 mg/week after at least 4 weeks on the current dose **Maintenance dose:** 5, 10, or 15 mg subcutaneously once weekly **Max dose:** 15 mg subcutaneously once weekly **Renal Impairment:** No dosage adjustment needed **Hepatic impairment:** No dosage adjustment needed	**Adverse reactions:** nausea, diarrhea, constipation, vomiting, abdominal pain, decreased appetite, dyspepsia, fatigue, injection site reactions • Serious but less common: pancreatitis, gastroparesis, acute kidney injury, retinopathy, cholelithiasis, AV block, hypersensitivity reaction, angioedema • Note that suicidal behavior and ideation have been reported with other weight management products. Monitor patients treated with tirzepatide for the emergence or worsening of depression, suicidal thoughts, or behavior, and/or any unusual changes in mood or behavior. Discontinue tirzepatide in those who experience suicidal thoughts or behaviors and refer emergently or urgently to mental health as clinically appropriate. Avoid in patients with a history of suicidal attempts or active suicidal ideation. **Drug interactions:** • Chloroquine, insulin, warfarin, hydroxychloroquine, sulfonylureas, oral contraceptives • When initiating tirzepatide, consider reducing the dose of concomitantly administered insulin secretagogues (e.g., sulfonylureas) or insulin to reduce the risk of hypoglycemia. • Coadministration with other tirzepatide-containing products or with any GLP-1 receptor agonist is not recommended.	**Nonformulary Use Criteria:** • As an adjunct to improve glycemic control in patients with uncontrolled T2D, especially for those with overweight/obesity • As an adjunct to treat moderate to severe obstructive sleep apnea (OSA) (apnea-hypopnea index [AHI] ≥15) in patients with obesity • As an adjunct to improve heart failure symptoms and functional capacity in patients with comorbid heart failure with preserved ejection fraction (HFpEF) and obesity, who are optimized on guideline-directed medication therapy for heart failure including SGLT2 inhibitor **Black Box Warning:** Tirzepatide causes dose-dependent and treatment-duration-dependent thyroid C-cell tumors at clinically relevant exposures in animal studies. Relevance in humans has not been determined. **Contraindications:** Personal or family history of Medullary Thyroid Carcinoma or patients with Multiple Endocrine Neoplasia Syndrome type 2; serious hypersensitivity reaction to tirzepatide or any of the product components **Caution in the following:** • Consider holding a week before elective procedure/surgery; if available follow recommendation from surgical team; eConsult endocrinologist if needed. • Concomitant use with insulin or insulin secretagogues (e.g., sulfonylureas); history of diabetic retinopathy, pancreatitis, hepatic impairment, gallbladder disease, cholelithiasis, renal impairment • When using concomitantly with insulin, administer as separate injections. Do not mix together. Do not give injections adjacent to each other.

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Drug-Drug Interaction Checker

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Referral for Consideration of Bariatric Surgery

Background

In accordance with California Code of Regulations (CCR) Title 15, Section 3350.1, obese patients meeting basic prerequisite criteria as established by California Correctional Health Care Services (CCHCS), who request bariatric surgery will be referred by the institution to the Statewide Medical Authorization Review Team (SMART) for evaluation and consideration for possible bariatric surgery consistent with these guidelines.

Referral Criteria

The PCP may submit a request to SMART for a patient to be considered for bariatric surgery if:

1. The patient desires bariatric surgery.
2. The patient meets the following clinical criteria:
   a. Class 3 obesity or Class 2 obesity with at least one obesity-related comorbidity.
   b. No medical contraindications for bariatric surgery.
   c. No mental health contraindications for bariatric surgery.
   d. No recent alcohol, nicotine, or substance use.
3. Successful participation in the 12-month Medical Weight Management Program (MWMP) and has shown their effort in following the diet, exercise, behavior, and medication recommendations.

Referral Process Summary

Step 1: Medical evaluation within 30 days after successful completion of MWMP. PCP reviews patient's obesity-related comorbidities at the conclusion of MWMP because the severity may have changed. Ensure the patient meets criteria and has no contraindications:

- Educate the patient on risks of surgery and requirements to be considered. (Patient Information Packet for Bariatric Surgery)
- Provide the patient the Patient Information Packet again and review it with the patient.
- Ensure patient understands the **very strict pre-op and post-op diet changes** that will be required and that they still desire to proceed with bariatric surgery.
- Confirm the patient is willing to transfer to designated institution (CHCF, CMF or CCWF) for pre- and post-op care and diet from 2 weeks prior to surgery until they can comfortably consume solid foods and demonstrate adherence to the dietary pattern as recommended.

Step 2: Mental Health Screening within 30 days after successful completion of MWMP:

- For patients **NOT enrolled in Mental Health Services Delivery System** (MHSDS):
  - PCP completes screening for depression using the following two questions. Consider a referral to Mental Health if there is a positive response to either question:
    1. During the last month, have you often been bothered by feeling down, depressed, or hopeless?
    2. During the last month, have you often been bothered by having little interest or pleasure in doing things?
  - If a patient is not suspected of having depression or other MH issues, including but not limited to anxiety, depression, and eating disorders, referral to Mental Health is NOT required.
  - Refer to MH for any suspected mental health conditions.
- For patients **enrolled in the MHSDS**:
  - PCP collaborates with mental health provider to request a summary of mental health symptoms, which will be authored by a Mental Health Clinician, to be shared for psychological-behavioral evaluation prior to bariatric surgery.
  - Contents of the summary of mental health symptoms may include:
    - A brief psychiatric history.
    - Results and interpretation of clinical questionnaires, structured surveys, or structured screening interviews (such as the Hamilton Depression Rating Scale for Depression).
    - Summary of symptom descriptions contained within or taken from mental health notations during the previous year (i.e., psychiatry notes, psychology notes, and social work notes), with special attention to recent active symptoms (i.e., ongoing psychotic symptoms or ongoing depressed mood or mood lability).
    - Number of Mental Health Crisis Bed hospitalizations, Department of State Hospitals hospitalizations, or psychiatric inpatient program hospitalizations (especially those within the previous year).
    - Summary of Suicide Risk Evaluations or Suicide Risk and Self-Harm Assessments.

Attachment 1, cont'd

- Details of previous suicide attempts or self-injurious behaviors (especially those within the previous year).
- Other details that may suggest either mental stability or instability during the past year.
- If significant symptom history exists (e.g., evidence of psychiatric symptoms in the recent medical record notations), local Mental Health clinician(s) will be asked to present the clinical history during SMART.

Note: This MH evaluation is distinct from the psychological-behavioral evaluation prior to the bariatric surgery, which is usually performed by psychologists experienced in caring for patients with obesity and receiving bariatric surgery. A CDCR 7385, Authorization for Release of Protected Health Information, is needed prior to release of mental health records.

Step 3: PCP submits electronic Request for Services (eRFS):

- Select the "General Surgery Evaluation" eRFS and from the drop-down menu, should indicate that the patient is requesting "*Bariatric surgery evaluation*" and has completed the required 12 months of MWMP.
- The eRFS shall follow the pre-authorization process outlined in the HCDOM, Section, 3.1.11, Outpatient Specialty Services, prior to submission to the SMART by the reviewing physician manager.

Step 4: Gather all Case Materials to submit as a package to SMART:

- Complete medical history and identification of serious or poorly controlled medical conditions.
- Complete history of medical therapy for obesity, including laboratory monitoring.
- One year timeline with trend of BMI measurements.
- Complete Mental Health evaluation as outlined in step 2.
- Chief Medical Executive (CME) or Chief Physician & Surgeon (CP&S) is responsible for reviewing and providing to SMART all necessary information, including the requested medical and mental health reports as outlined above within 14 days of the referral.
- The SMART Requisition PowerForm is available within EHRS.

Step 5: SMART Review:

- The eRFS referral and case materials will be reviewed and considered by the headquarters SMART generally within 30 days of receipt of a complete package.
- Headquarters' Mental Health staff will assist during the SMART meeting in the review and interpretation of summary documents, EHRS documents, and the details provided by local mental health clinicians.
- The SMART committee will communicate their decision by emailing a signed memo to CME and copy the Regional Deputy Medical Executive, CP&S, and Utilization Management Nurse.
- If the patient is approved, an appointment will be arranged by the institution specialty nurses with an approved bariatric surgeon.

Step 6: After approval by SMART, complete the preprocedural checklist evaluation (Table 16) with collaboration of the surgery team. Ensure the preprocedural checklist is completed, especially the psychological-behavioral evaluation:

- The purposes of psychological evaluation for patients with obesity before the proposed weight loss surgery include the following:
  - To ascertain there are no psychiatric contraindications to safe bariatric surgery.
  - To diagnose and treat pre-surgery mental conditions that could predict poor weight loss.
  - To diagnose and treat post-surgery mental conditions associated with poor quality of life.[7]
- The psychological-behavioral evaluation will be coordinated by the institution and the approved surgery center.

Attachment 2

Perioperative Bariatric Surgery Diets

The CCHCS Registered Dietitian (RD) is an integral part of the interdisciplinary treatment team caring for the bariatric surgery patient. The dietitian should complete a nutritional assessment on all bariatric patients before surgery and continue to follow the patient after surgery. Developing individualized patient meal plans will be part of the assessment and monitoring process. Preoperative and postoperative dietary regimens are outlined below. Note that these serve as general guidance, yet RD will need to work with individual surgery center(s) to meet the specific diet requirements.

- Preoperative and Postoperative Diet Orders and Instruction to patient
- Supplemental Feeding
- Nutrition Supplementation
- Nutritional Assessment and Monitoring

Preoperative Diet 2 Weeks Prior to Surgery

The CCHCS RD will discuss the diet plan recommended by the surgeon with the patient. See the typical 1-2 week preoperative diet in "patient information packet for bariatric surgery." Diets may vary slightly depending on the type of bariatric surgery and the operating surgeons.

It is extremely important for the patient to follow the diet plan provided. All food and beverages will be prepared in a licensed therapeutic diet kitchen. Instruct patients not to eat or drink anything other than what is provided to them.

The PCP will order "Diet Inpatient/Outpatient Bariatric" in EHRS. In the order screen, choose "Preoperative." Indicate the duration of the diet (start and end date) as well as any special instructions indicated by surgeon.

Most surgeons will recommend a strict clear liquid diet for 24 hours and NPO after midnight prior to surgery.

Postoperative Diet

Diet after bariatric surgery is typically broken up into five stages. Stage durations and classification are approximate and will vary based on the type of bariatric surgery performed, the surgeon's recommendations, and the patient's individual recovery and response to foods. Some surgeons may recommend an additional Stage Six as the maintenance stage, while others may combine Stage Two and Stage Three into one stage.

It is important for the providers to consult and communicate with RD and surgeon to provide a smooth transition between each stage and not rely on the "postoperative day" to choose the type of diet.

- **Stage One - Clear Liquids**
- **Stage Two - Full Liquids**
- **Stage Three - Pureed**
- **Stage Four - Soft**
- **Stage Five - Maintenance**

Postoperative Diet Stage One - Clear Liquids

The PCP orders "Diet Inpatient/Outpatient Bariatric" in EHRS. In the order screen, choose "Postoperative." In the drop-down menu, choose "Stage One – Clear Liquids." Indicate the duration of the diet (start and end date) as well as any special instructions.

Postoperative Diet Stage Two - Full Liquids

The PCP orders "Diet Inpatient/Outpatient Bariatric" in EHRS. In the order screen, choose "Postoperative." In the drop-down menu, choose "Stage Two – Full Liquids" Indicate the duration of the diet (start and end date) as well as any special instructions.

Start chewable vitamin supplementation (see details under "nutrition supplement" in this attachment).

Attachment 2, cont'd

Postoperative Diet Stage Three - Pureed

The PCP orders "Diet Inpatient/Outpatient Bariatric" in EHRS. In the order screen, choose "Postoperative." In the drop-down menu, choose "Stage Three – Pureed." Indicate the duration of the diet (start and end date) as well as any special instructions.

If a food can be easily mashed with a fork, knife, or a spoon, then it is a candidate for Stage Three of the diet.

Postoperative Diet Stage Four - Soft

The PCP orders "Diet Inpatient/Outpatient Bariatric" in EHRS. In the order screen, choose "Postoperative." In the drop-down menu, choose "Stage Four– Soft" Indicate the duration of the diet (start and end date) as well as any special instructions.

Postoperative Diet Stage Five - Maintenance

The postoperative diet stage five is prescribed to the patient once they can safely tolerate regular consistency foods. This diet phase is designed to support nutritional adequacy while promoting beneficial weight loss conducive to long term health goals. Patients will remain on this maintenance diet until they can comfortably consume solid foods and demonstrate adherence to the dietary pattern as recommended.

By Stage Five, the patient should be comfortable with and adherent to the diet patterns outlined by the surgeon, with input from the dietitian.

PCP will order "Diet bariatric outpatient" in EHRS and select "Postop-Stage Five-Maintenance Diet" from the drop-down menu in the main order.

Due to the specificity of this diet stage and the input required for its operation, the Postoperative Stage Five diet can only be provided at facilities whose medically licensed kitchens have the capacity to "scratch cook" their meals. Currently these facilities are: **CHCF, CMF** and **CCWF**. As diet requirements may vary among surgical centers, communication and collaboration with the surgical partner is vital.

After 6 months, whole grain foods may be gradually reintroduced in very small portions.

Patients are to take the CDCR Heart Healthy Diet once they can comfortably consume solid foods and demonstrate adherence to the dietary pattern as recommended. Patients need to demonstrate understanding of daily protein goals, portion control and which foods should be avoided at this stage.

Supplemental Feeding

Because smaller portions will be consumed during the three main meals, a patient may need a supplemental feeding or snack two or three times per day.

The RD will evaluate the patient's intake of protein and fluids and make a recommendation if a supplement feeding or snack is needed.

If a supplemental feeding is determined necessary by the RD, the PCP orders "Snack" in EHRS. In the drop-down menu, choose "Bariatric Snack" and indicate how many times a day. The snack will consist of:

- 1 Tbsp. peanut butter with 6 saltine crackers or 1 slice whole wheat bread
- 1 oz. slice cheese with 6 saltine crackers or 1 slice whole wheat bread

Nutrition Supplement

Postoperative bariatric patients are required to take certain vitamin and mineral supplements for the remainder of their lives.

Consult CCHCS Formulary for specific formulations:
http://lifeline/HealthCareOperations/MedicalServices/Pharmacy/CCHCS%20Formulary/CCHCS-CDCR-Formulary.pdf

Attachment 2, cont'd

These include (see Table 17 for more details):

- Multivitamin and mineral supplement: 2 tablets per day*
- Calcium: 1,200-1,500 mg/day* (1,800-2,400 mg/day for BPD/DS)
- Vitamin D: at least 3,000 units/day*, titrate to normal range levels
- Vitamin B12: (350 to 1,000 µg/day or more, as needed for normal range levels)*
- Supplemental Folate or Iron, particularly for women who are still menstruating

*Chewable or liquid forms for at least the first month post bariatric surgery.

The RD will work with the PCP to determine the appropriate vitamin and mineral supplementation based on the individual patient's needs.

Protein supplementation may be indicated if the RD has determined the patient's needs are not being met through the CDCR diet and supplemental feedings.

PATIENT EDUCATION

Healthy Eating Habits

WHAT ARE THE KEYS TO A HEALTHY WEIGHT?

- The best way to reach and stay at a healthy weight is to make small changes over time.
- By thinking about what you eat every day and exercising regularly, you can lose weight, feel better, have more energy, and improve your health.

START WITH A PLAN

- The standard CDCR Heart Healthy Diet - CDCR Standardized Master Menu will help you lose or maintain weight if good choices are made.
- Note each tray has more food/calories than is needed at each meal. This is so a person who is allergic to a food or does not like a certain food can skip that part of the meal and still get enough calories.
- Since each meal has more calories than you need, you should not eat your whole tray if you hope to lose weight.
- Special food is not required.
- Choose healthy foods from the canteen and your quarterly packages.
- Remember: Weight management is <u>your</u> responsibility.

EATTHREE MAIN MEALS EACH DAY

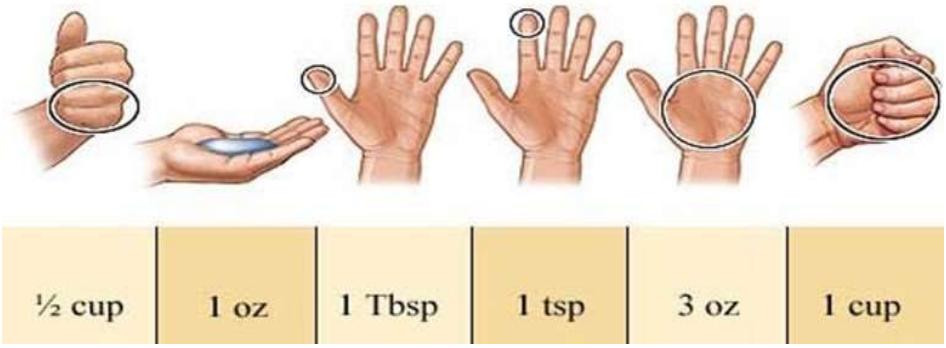
- Do not skip meals; it can lead to overeating later and your body needs nutrients to work well.
- Eat three meals a day and try not to snack in between.

EAT BALANCED MEALS

- All five food groups (meat, grains, vegetables, fruits, and dairy) provide nutrients and are part of a healthy, well-balanced diet.
- Do not avoid any one food group unless you have allergies.
- Limit foods high in saturated fat and sugar (these have a lot of calories and are not as filling).
- Drink plenty of water; water is your friend.

PORTION CONTROL

- The amount you eat is important to losing weight or maintaining it.
- Understanding portion sizes for meals/snacks will help you to manage your weight.



PATIENT EDUCATION

Healthy Eating Habits Cont'd

Healthy Canteen Choices

High Sodium Foods:	Low Sodium Foods:
Soups/Top Ramen/Cup O' Soup	Omit Seasoning Packet
Pouched Entrees	Chunk Chicken
Flavored Rice	Instant Rice/Brown Rice
Anchovies/Sardines/Smoked Fish	Fish Steak
Beef Jerky/Sausage Sticks/Bacon	Turkey Deli Bites
Chips/Crackers/Pork Rinds	Plain Popcorn
Packaged Gravy/Sauces	Assorted Hot Sauces/Picante/Siracha
Olives/Pickles/Jalapenos	Fresh Fruit/ Fresh Vegetables
Soy Sauce	Mrs. Dash/Garlic Powder/Chili Flakes
Assorted Seasonings (Check Label)	Low Sodium V-8 Juice
V-8 Juice	

High Sugar Foods:	Low Sugar Foods:
Regular Sodas	Diet Sodas/Sugar-Free Drinks/Crystal Light
Candy	Sugar-Free Candy
Cake/Cookies/Pie/Donuts/Pop-Ups	Sugar-Free Cookies
BBQ Sauce/Ketchup/Teriyaki Sauce	Hot Sauces/Siracha/Soy Sauce
Ice Cream	Tutone Bar

High Fat Foods:	Low Fat Foods:
Chips/Pork Rinds	Plain Popcorn
Mayonnaise/Salad Dressings	Fat Free Mayo/Fat Free Dressings
Candy (Chocolate Varieties)	Hard Candy/Sugar-Free Candy
Cake/Cookies/Pie/Donuts/Pop-Ups	Sugar-Free Cookies
Ice Cream	Fudge Bar/Tutone Bar/Astro Pop

PATIENT EDUCATION

Healthy Eating Habits Cont'd

HEALTHY EATING TIPS

When choosing foods to eat, use these guidelines to manage your weight.[6]

Eat **LESS** foods high in fat, sugar, and/or salt like:

- Soups/Top Ramen/Cup O' Soup
- Beef Jerky/Sausage Sticks/Bacon/Cheese Spreads
- Cake/Cookies/Pie/Donuts/Pop
- Pancakes or Maple Flavored Syrup Sweet Rolls
- Potato Chips/Cheese Puffs
- Candy
- BBQ Sauce/Ketchup/Teriyaki Sauce
- Flavored Rice
- Crackers/Pork Rinds
- Packaged Gravy/Sauces
- Jelly/Jam
- Ice Cream/Sherbet
- Regular Soda/Gatorade

Eat **MORE** vegetables, fruits, and whole grains when available.

- These healthier foods are full of nutrients to help keep your stomach and intestines healthy.
- They also have higher fiber content which helps you feel fuller after eating them and helps you reduce your portion sizes.

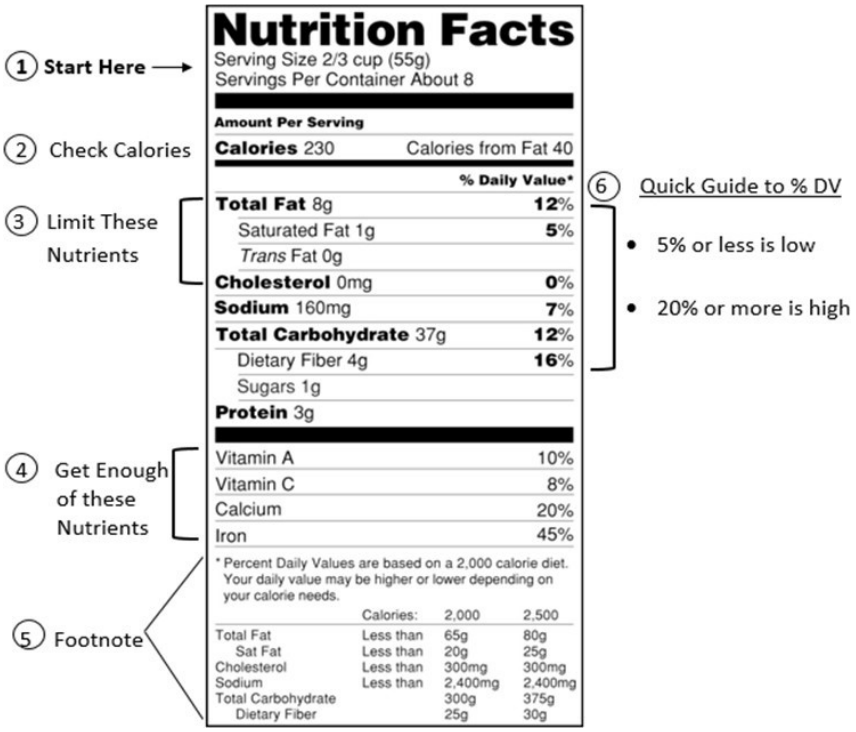
THINK BEFORE YOU EAT YOUR FAVORITE FOOD AT THE CANTEEN!

Canteen Item	Serving Size	Calories	To Burn Off Calories
Ramen	1 Package	400	Walk 70 minutes or Plank for 160 minutes
Tootsie Roll	1 Candy	123	Walk 25 minutes or Jumping Jacks for 25 minutes
Hot & Spicy Pork Rinds	1 Bag	150	Walk 30 minutes or Push-ups for 30 minutes
Mountain Dew	1 Can	170	Walk 35 minutes or Sit-ups for 35 minutes
Pepsi	1 Can	150	Walk 30 minutes or Run for 15 minutes
Flour Tortillas	1X8 inch	140	Walk 28 minutes or Squats for 90 minutes
Granola Bar	1 Bar	100-150	Walk 20-30 minutes or Burpees for 6-9 minutes

Remember: Your health is your responsibility! Enjoy your food but pay attention to what you are eating and how much.

PATIENT EDUCATION

How to Read a Nutrition Label



1. Serving Size

- This section shows how many servings are in the package and how big the serving is.
- Remember all of the nutritional information on the label is based upon one serving of the food and a package usually contains more than one serving!

2. Amount of Calories

- The calories listed are for one serving of the food. “Calories from fat” shows how many fat calories there are in one serving.

3. Limit these Nutrients

- Eating too much total fat, cholesterol, or sodium may increase your risk of heart disease, some cancers, orhigh blood pressure.
- Try to keep these nutrients as low as possible each day.

4. Get Enough of these Nutrients

- Eating enough dietary fiber, vitamin A, vitamin C, calcium, and potassium may improve your health and help reduce the risk of some diseases.

5. Footnote

- This section Contains Daily Values (DVs) for 2,000 and 2,500 calorie diets. Provides recommended amounts of nutrients, fats, sodium, and fiber.
- The footnote is found only on larger packages and does not change from product to product.

6. Percent (%) Daily Value

- This section tells you how the nutrients in one serving of food add to your total daily diet.
- Use it to choose foods that are high in the nutrients you should get more of, and low in the nutrients you should get less of.
- Daily Values are based on a 2,000-calorie diet. However, your nutritional needs may vary.

PATIENT EDUCATION

Tracking Food

Writing down what you eat helps you take an honest look at your eating habits and can help you make healthy changes. By keeping track of everything you eat from the time you wake up until the time you go to bed, you see exactly what, how much, when, and why you are eating. You may start to notice patterns that are keeping you from eating healthier.

A food journal should include:

- Date and time food is eaten
- What type of food you ate
- How much you ate

You can also include how you are feeling when you decide to eat. Keeping track of how you feel when you want to eat can help you learn if there are certain emotions or feelings that make you want to eat, other than being hungry.

When reviewing your food journal, ask yourself these questions:

- Did I eat healthy foods for meals and snacks?
- How were my portion sizes?
- Are there any patterns of eating where I can make better choices?

On a blank sheet of paper, you can create your own food journal like the one in the **example below**:

Name: _____ Date: _____

Time of Day/Meal	Type of Food	Portion	Mood
Breakfast	Eggs	3	Tired
Breakfast	White toast	2 slices	Tired
Lunch	Apple	Whole	Good

PATIENT EDUCATION

Tracking Exercise

An important part of any weight management program is physical activity. An exercise journal can help you track your progress, and review what is working and what is not working for you. You should keep a journal of your daily physical activities as a part of your journey to a healthy lifestyle.

Keeping an exercise journal can also help to:

- Increase motivation
- Break down goals into smaller, easier to reach goals
- Track progress toward goals
- Gain a better understanding of your exercise habits
- Plan rest days
- Provide a record of success

An exercise journal should be detailed enough to assist you in reaching your goals and should include:

- Date and time of workout
- What exercise you completed
- The number of repetitions (reps) completed in each set
- The number of sets completed
- The difficulty level - if the exercise is too easy, consider increasing your reps, sets, and/or duration

On a blank sheet of paper, you can create a personalized exercise journal like the one in the **example below**:

Name: _____ Date: _____

Exercise	Set 1 weight/reps	Set 2 weight/reps	Set 3 weight/reps	Rest sec btw reps	Total Time
Running (Monday)					30 minutes
Weight-lifting					
Squats					

PATIENT EDUCATION

Exercise

WHAT ARE THE BENEFITS OF EXERCISE?

Exercise has many benefits. It can:

- Immediately reduce stress
- Immediately improve mood
- Immediately improve focus
- Immediately improve sleep
- Burn calories, which helps people control their weight
- Help control blood sugar levels in people with diabetes
- Lower blood pressure, especially in people with high blood pressure
- Keep bones strong, so they don't get thin and break easily
- Lower the chance of dying from heart disease
- Help your memory
- Improve brain health
- Reduce risk of cancer
- Reduce risk of falls and risk of fall-related injuries in older patients

WHAT ARE THE MAIN TYPES OF EXERCISE?

There are 3 main types of exercise you should do. They are:

- **Aerobic Exercise** (aka Cardio) raises a person s heart rate. Examples are walking, running, or jumping jacks.
- **Resistance Training** - helps make your muscles stronger. People can do this type of exercise using their own body weight.
- **Stretching** - Stretching exercises help your muscles and joints move more easily and help you with muscle soreness.

SHOULD I TALK TO MY DOCTOR OR NURSE BEFORE I START EXERCISING?

If you have not exercised before or have not exercised in a long time, talk with your doctor or nurse before you start an exercise program.

If you have heart disease or risk factors for heart disease (like high blood pressure or diabetes), your doctor or nurse might recommend that you have an exercise test before starting an exercise program.

PATIENT EDUCATION

Exercise Cont'd

WHAT SHOULD I DO WHEN I EXERCISE?

Each time you exercise, you should:

- **Warm-up** - Warming up can help keep you from hurting yourself when you exercise. To warm up, do a light aerobic exercise (such as walking slowly) or stretch for 5 to 10 minutes.
- **Workout** - During a workout, you can walk fast or run for example. You should also stretch all of your joints, including your neck, shoulders, back, hips, and knees. At least 2 times a week, you can add resistance training exercises to your workout.
- **Cool down** - Cooling down helps keep you from feeling dizzy after you exercise and helps prevent muscle cramps. To cool down, you can stretch or do a light aerobic exercise for 5 minutes.

HOW OFTEN SHOULD I EXERCISE?

Doctors recommend that people do moderate intensity "Cardio" exercise for at least 150-300 minutes per week, preferably spread throughout the week and at least two days a week on "resistance training". If you are tight on time, start with just 5 minutes. It all adds up.

WHEN SHOULD I TALK TO MY DOCTOR OR NURSE?

If you have any of the following symptoms when you exercise, stop and talk to your doctor or nurse right away:

- Pain or pressure in your chest, arms, throat, jaw, or back
- Nausea or vomiting
- Feeling like your heart is fluttering or racing very fast
- Feeling dizzy or faint

WHAT IF I'M TOO TIRED TO EXERCISE?

It's important to try to find time to exercise, even if you are tired. Exercise can increase your energy levels, which might even help you get more done.

Spending a lot of time sitting still is bad for your health. Try to get up and move around whenever you can.

WHAT ELSE SHOULD I DO WHEN I EXERCISE?

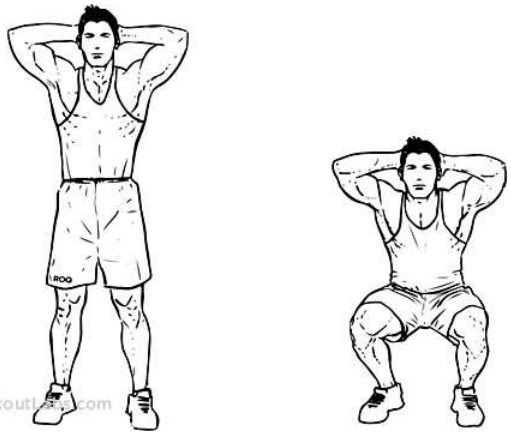
To exercise safely and avoid problems, be sure to:

- Drink fluids before and after exercising (drinks should not have caffeine in them).
- Limit exercising outside if it is too hot or cold.
- Wear layers of clothes so that you can take them off if you get too hot.
- Wear shoes that fit well and support your feet.

PATIENT EDUCATION

Basic Bodyweight Exercise Guide

BODY WEIGHT SQUAT



Helps strengthen your legs.

1. Stand with your feet about shoulder width apart.
2. Keep your weight in your heels the whole time.
3. Keep your lower back straight; do not allow it to arch or to extend.
4. Your knees should stay in line with your ankles and legs throughout the motion (make sure your knees do not go in or out as you lower).
5. Sit down, as if you are sitting in a chair, until your hips come to the level of your knees.
6. Repeat _____times.

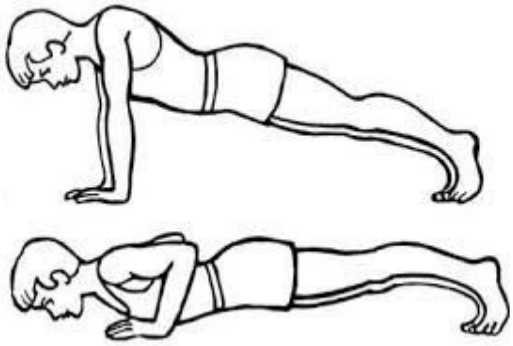
**CAUTION if you have any knee, back, or ankle issues*

PUSH-UP

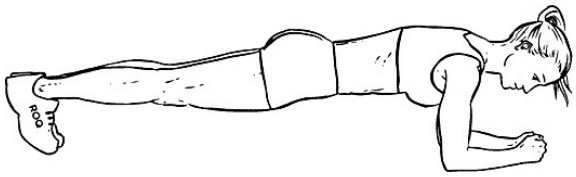
Helps strengthen your arms, shoulders, back and core.

1. Keep your torso (core) and legs in a straight line the whole time.
2. Keep your head facing forward.
3. Lower your chest close to the ground, but do not touch.
4. Use your arms to push yourself back up, breathing out as you push.
5. Repeat _____times.

**CAUTION if you have any back, ankle, shoulder, neck issues*



PLANK



Helps develop torso (core) strength.

1. Keep a straight torso, not allowing your lower back to sag or your hips to sag.
2. Gradually increase the time you can hold the position.
3. Hold for 30 seconds to 1 minute and relax.

**CAUTION if you have any back, shoulder, ankle, neck issues*

SIT-UP

Helps develop torso (core) strength.

1. Lie on your back with knees bent.
2. Slowly lift your back up, using your abs to pull you up into a seated position.
3. Make sure your feet stay on the floor.
4. Lower your torso down to the floor.
5. Repeat _____times.

**CAUTION if you have any back or neck issues*

PATIENT EDUCATION

Modified Exercises for Elderly or Obese Patients

7 EASY EXERCISES

Try these exercises twice a week to build up your strength, balance and flexibility.

Warm-Up

1. Stationary March with Arm Swing/Seated March

Strength Exercises

2. Sit to Stand

3. Standing Hip Extension

Balance Exercises

4. Side Leg Raise

5. Single Leg Stand

Flexibility Exercise

6. Triceps Stretch

Cool Down

7. Standing Quadriceps Stretch

PATIENT EDUCATION

Behavioral Changes

Support Groups: One of the most valued parts of support groups is that you can learn from peers.

- Nursing education has created many patient education modules around positive health behaviors. Check with your institution for the availability of Nursing Led Therapeutic Group (NLTG) curricula.

Improve Sleep

Sleep has a lot to do with how your body functions, including your hunger levels, hormone levels that affect your response to stress and food. Thus, it affects your health and weight. It is important to get good quality sleep, and get enough sleep by addressing sleep hygiene and coping with stress. There are some medical conditions that impact sleep**,** such as obstructive sleep apnea, depression, insomnia, etc. Talk to your doctor if you have trouble falling asleep, feeling low, or waking up feeling unrefreshed and were told to habitually snore.

Medications for Patients with Diabetes, Heart Disease, Fatty Liver, or Sleep Apnea

Your doctor may order a medication by injection to help you protect your health if you have diabetes, heart disease, fatty liver, or sleep apnea. One of the ways this medication works is by making you less hungry and slowing down your gut movement. You could feel nausea and have vomiting, which usually happens when you begin the medication. By following these tips, you could avoid or lessen the side effects.

Here are some helpful tips:

- Eat slowly.
- Eat smaller meals.
- Start meals by eating your protein first, then eat your vegetables.
- Avoid high-fat foods.
- Avoid sweet food and spicy food.
- Eat only if you're really hungry and stop eating when feeling full.
- Don't lie down after eating.
- Try not to be too active after eating.
- Don't eat too close to bedtime.
- Avoid drinking from a straw.
- Drink enough fluid, especially with vomiting or diarrhea. Check with your doctor for the specific amount.
- Maintain physically active.
- Do strength training or resistance training so you don't lose muscle while you lose weight.
- Notify your doctors if you have persistent nausea with or without vomiting, or become constipated, or have other concerns.

PATIENT INFORMATION

Patient Information Packet for Bariatric Surgery

What is Bariatric Surgery?

- Bariatric Surgery (sometimes called "Gastric Bypass") includes different kinds of surgery on the stomach and/or intestines to help a person lose weight. It is not the cure to obesity. Having weight loss surgery does not guarantee easy and steady weight loss.
- The surgery will fail if the required lifelong changes, including proper diet and exercise, are not followed.

Who is eligible for Bariatric Surgery?

- Patients with a BMI over 40 (also called Class 3 Obesity).
- Patients with a BMI of between 35 and 39.9 (Class 2 Obesity) who also have a serious medical problem related to their obesity.

Patients should:

- Have at least 2 years remaining before their parole or release date.
- Be able to make their own medical decisions.
- Understand that some surgeries often have lasting changes on body and bad side effects can happen and stay forever.
- Actively participate in a Medical Weight Management Program in the areas of diet, exercise, medication and supplement.
- Be evaluated by providers and other care providers prior to surgery.
- Understand that they may need to transfer to another facility 2 weeks prior to the surgery and remain there until they can comfortably eat solid foods and follow the food recommendations.

Who cannot have Bariatric Surgery?

In general, bariatric surgery is **not recommended** for patients:

- With serious depression or other mental health conditions not under control.
- With eating disorders (e.g., bulimia) that are not under control.
- With a history of foreign body ingestion or insertion.
- Who currently smoke or abuse drugs and/or alcohol.
- With serious heart or lung trouble that might make surgery too risky.
- With serious liver damage or history of trouble with blood clotting.
- Who are pregnant, lactating, or plan for pregnancy within 2 years of potential surgical treatment.
- With a history of not following lifestyle, medical, or mental health interventions.
- Who cannot follow lifelong instructions to take vitamins/minerals needed after some surgeries.
- Who are in advanced age (above 65 years) or very young age (under 18 years), as bariatric surgery is controversial but is considered when comorbidity is severe.

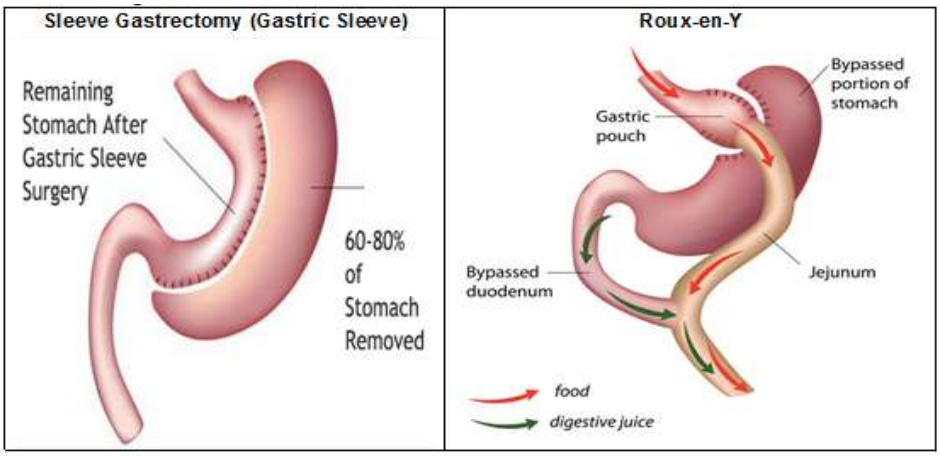
PATIENT INFORMATION

Patient Information Packet for Bariatric Surgery Cont'd

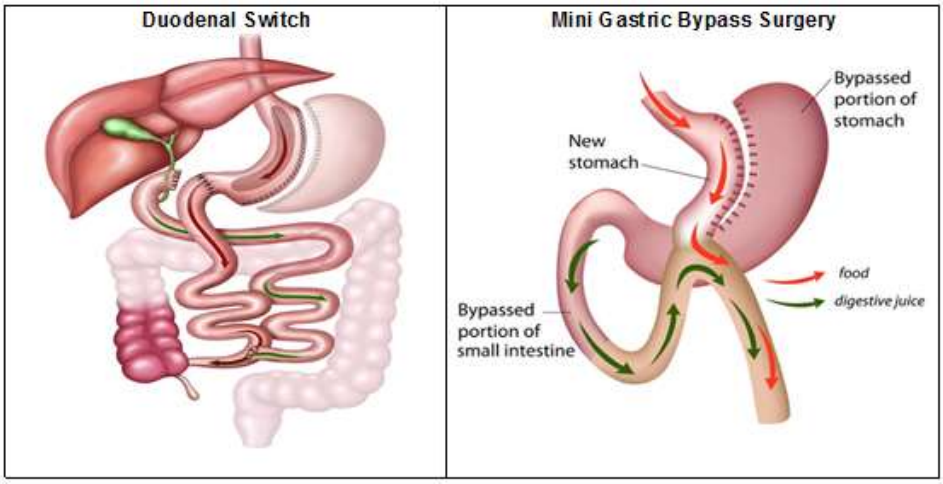
What are the Different Types of Bariatric Surgery?

The type of surgery a patient receives is decided based on the surgeon and the hospital's choice of what is best for that particular patient. There are two main kinds of bariatric surgeries.

1. **Restrictive:** Surgery is used to limit the amount of food the stomach can hold. This makes patients feel full much sooner after eating than they did before surgery. These surgeries include:
    - Sleeve Gastrectomy aka Gastric Sleeve:
    - Roux-en-Y (pronounced roo-en-why) Gastric Bypass



2. **Malabsorptive:** Surgery that rearranges and/or removes part of a patient's digestive system, which then limits the amount of calories, minerals, and/or fat-soluble vitamins that their body can absorb. These surgeries include:
    - Duodenal Switch
    - Roux-en-Y Gastric Bypass
    - Mini Gastric Bypass



PATIENT INFORMATION

Patient Information Packet for Bariatric Surgery Cont'd

What Can You Expect if you have Bariatric Surgery?

- Weight loss surgery is done in the hospital.
- General anesthesia is used, this means patients are asleep during the procedure.
- Most types of bariatric surgery are performed using a small tube with a camera attached (called a laparoscope).
  - The laparoscope (tube) is inserted through small cuts in the stomach.
  - The tiny camera on the tip of the laparoscope allows the surgeon to see and operate inside a patient's stomach.
- Surgery usually takes several hours, and medical staff monitors for any complications.
- Hospital stays may last from 1-3 days.

What are the Risks and Side Effects of Bariatric Surgery?

All surgeries carry risks. The surgeon will explain all potential risks and/or side effects and answer any questions patients might have. Some possible risks and side effects are listed below.

Common Side Effects:

- Anesthesia-related risks: heart attack, stroke, blindness, or death
- Chronic nausea, vomiting, and/or heartburn
- Constipation
- Bleeding
- Inability to eat certain foods without discomfort or getting sick
- Infection
- Obstruction of stomach
- Weight gain or failure to lose weight
- **Deficiency** in certain vitamins and minerals, which can cause serious, sometimes permanent damages to your body, such as brain and nervous system

Long-Term Side Effects:

- Low blood sugar
- Low blood pressure
- Chronic nausea, vomiting, and/or heartburn
- **Malnutrition**
- Ulcers
- Blockage or leaks in bowels
- Need for further surgery
- Hernias
- Anemia
- Scarring/Hair loss/Loose skin

How Can You Lower Some Possible Side Effects?

- Losing weight
- Increasing your amount of exercise
- Stopping smoking
- Following all pre-surgery and post-surgery diet requirements

PATIENT INFORMATION

Patient Information Packet for Bariatric Surgery Cont'd

SPECIAL BARIATRIC SURGERY DIET

Your health care team will explain the details of the pre-surgery and post-surgery diets. Surgery may not be successful if the pre-surgery and post-surgery diet is not followed. See below for diet details.

2 Weeks *Before* Surgery

Two weeks before the surgery, your surgeon will ask you to go on a special diet to shrink your liver and prepare you for a successful surgery. The items listed below are an example of allowed food/drink for you during this period and it may vary depending on the instructions from the surgeon and the facility you are at. You may have unlimited water. Be sure to stop consuming all alcohol, caffeine and carbonation.

- Liquid Nutrition Supplement (LNS)
- Hard boiled eggs
- Greek yogurt
- Peanut butter
- Chicken
- Tuna salad

You need to sip all beverages and liquids very slowly. Liquids should not be taken with meals, and patients should wait at least 30 minutes after a meal before having any type of liquid. (Separating liquids and solids happens after surgery, but it's good to start building this habit before the surgery.

Most surgeons will ask you to only take clear liquids for 24 hours and do not eat after midnight, prior to the day of surgery.

Bariatric Post-Operative Diet Stages

You will gradually transition from clear liquids to other types of foods during your recovery. The duration of each stage varies depending on the type of surgery, your surgeon's practice, your recovery, your body's acceptance of the food and your weight loss result. It is very important to follow the diet and nutrition requirements, including vitamins, to stay healthy and avoid weight regain and serious health complications. Below is a brief overview for each stage, followed by some sample foods you may see for each stage.

Stage One- Clear Liquids:

Immediately after your surgery, you will be placed on a clear liquid diet. Your stomach will be able to hold 1-2 oz of liquid at a time. Make sure you go slowly, sip and don't gulp. Try to sip 1 oz. of fluid every 15 minutes, with a goal of 64 oz. daily.

Stage Two- Full Liquids:

In this stage of diet, you will continue clear liquids but will add other liquids such as LNS. It is very important to take in enough protein (70 to 90 grams per day) during this diet stage. Again, your goal is to drink 64 oz. of fluids and to drink all your provided protein shakes. If you find it difficult to consume all your protein shakes, try adding water.

Stage Three- Pureed:

In this stage of the diet, you will begin to add non-liquid foods back into your diet in the form of puree. Food consistency should look like applesauce, pudding or baby food. You will need to start separating solid and liquid foods and eat slowly. Make sure you wait 30 minutes to drink before and after meals. Your goal is to consume 64 oz. of fluid and 70-90g protein per day.

Foods may taste different and will be tolerated differently than before surgery. You need to add new foods slowly, one by one.

PATIENT INFORMATION

Patient Information Packet for Bariatric Surgery Cont'd

Stage Four- Soft:

In this stage of the diet, foods from stages 1-3 may be included. Be sure to chew all foods well, as digestion begins in the mouth, and you are recommended to chew about 20-30 times per bite. Aim to consume 64 oz. of fluids and 70-90g of protein a day. This should be split into 4-6 small meals daily. Remember to wait 30 minutes before and after each meal to drink liquids.

Avoid these foods:

- Stalks of broccoli, celery and corn

Stage Five- Maintenance:

Continue to include food from the previous diet stages and gradually try new solid foods. Remember to chew all solid food well and take your time to complete your meals (20-30 min). Note that while your stomach capacity will increase with time, you should never eat more than a cup (8 oz.) of food at a time.

You are encouraged to:

- Eat three small meals every day.
- Eat protein foods first, followed by soft vegetables and fruits. and then starchy foods last.
- Thoroughly chew food before swallowing.
- Stop eating or drinking when full.
- Stop drinking fluids 30 minutes before each meal.
- Wait at least 30 minutes after a meal to drink.
- Never eat more than 8 oz. or 1 cup of food in a single setting.
- Avoid sugar and sweets.
- Avoid snacking unless ordered by PCP or RD.
- Take recommended daily vitamins.
- 70-90 grams of protein per day.
- Incorporate exercise into daily routine.
- Avoid concentrated sweets, added sugars, high-fat foods and carbonated beverages for life.

Foods to avoid for 6 months:

- Bread
- Pasta
- Rice
- Tortillas
- Waffles/pancakes
- Muffins/bagels
- Dry cereal
- Crackers
- Popcorn

PATIENT INFORMATION

Patient Information Packet for Bariatric Surgery Cont'd

Sample foods for each stage:

Post-op Diet Stage One Clear Liquids	Post-op Diet Stage Two Full Liquids	Post-op Diet Stage Three Pureed	Post-op Diet Stage Four Soft	Post-op Diet Stage Five Maintenance
Water	LNS	Scrambled eggs	Scrambled eggs	Lean meats and poultry
Broth	Soup	Pureed canned vegetables	Turkey breast with gravy	Salad
Decaffeinated coffee	Broth	Pureed canned fruit	Canned or cooked fruit and vegetables	Beans
Crystal-Light	Gelatin	Pureed meat or fish	Sliced cheese	Nuts/Peanut butter
Sugar-free gelatin	Milk	LNS	LNS	All soft fruit without peels

Lifelong Diet Guidelines

- Eat three small meals every day.
- Eat protein foods first, followed by soft vegetables and fruits and then starchy foods last.
- Chew food well before swallowing.
- Stop eating or drinking when you start feeling full.
- Stop drinking fluids 30 minutes before each meal.
- Wait at least 30 minutes after a meal to drink.
- Drink water throughout the day.
- Avoid sugar and sweets.
- Avoid snacking unless ordered by primary care provider or dietitian.
- Take recommended daily vitamins.
- Avoid sodas and carbonated beverages.
- Avoid alcoholic beverages.
- Avoid many canteen foods as they are not good for your body, ask dietician or doctor if you feel hungry between meals.

EDUCACIÓN PARA PACIENTES

Hábitos De Alimentación Saludable

¿CUÁLES SON LAS CLAVES PARA MANTENER UN PESO SALUDABLE?

- La mejor manera de alcanzar y mantener un peso saludable es hacer pequeños cambios con el tiempo.
- Al pensar en lo que come todos los días y hacer ejercicio regularmente, puede perder peso, sentirse mejor, tener más energía y mejorar su salud.

COMIENCE CON UN PLAN

- La dieta estándar para un corazón saludable del CDCR - Menú maestro estandarizado del CDCR le ayudará a perder o mantener peso si se hacen buenas elecciones.
- Tenga en cuenta que cada bandeja tiene más comida/calorías que las que son necesarias para cada comida. Esto significa que una persona que es alérgica a un alimento o que no le gusta cierto alimento puede omitir esa parte de la comida y aun así obtener suficientes calorías.
- Dado que cada comida tiene más calorías de las que necesita, no debería comer toda la bandeja si espera perder peso.
- No se requiere comida especial.
- Elija alimentos saludables del comedor y de sus paquetes trimestrales.
- Recuerde: El control de peso es responsabilidad suya.

CONSUMA TRES COMIDAS PRINCIPALES AL DÍA

- No se salte las comidas; puede llevar a comer en exceso más tarde y su cuerpo necesita nutrientes para funcionar bien.
- Coma tres comidas al día e intente no comer entre ellas.

COMA COMIDAS EQUILIBRADAS

- Los cinco grupos de alimentos (carne, granos, verduras, frutas y lácteos) proporcionan nutrientes y son parte de una dieta saludable y equilibrada.
- No evite ningún grupo de alimentos a menos que tenga alergias.
- Limite los alimentos altos en grasas saturadas y azúcar (estos tienen muchas calorías y no son tan saciantes).
- Beba mucha agua; el agua es su amiga.

CONTROL DE PORCIONES

- La cantidad que come es importante para perder peso o mantenerlo.
- Comprender las porciones de las comidas/meriendas le ayudará a controlar su peso.

EDUCACIÓN PARA PACIENTES

Hábitos de Alimentación Saludable (Continuación)

Opciones Saludables en el Comedor

Alimentos con alto contenido de sodio:	Alimentos con bajo contenido de sodio:
Sopas/Top Ramen/Cup O' Soup	Omitir paquete de condimentos
Entradas en bolsa	Trozos de pollo
Arroz aromatizado	Arroz instantáneo/integral
Anchoas/Sardinas/Pescado Ahumado	Filete de Pescado
Cecina de ternera/Palitos de salchicha/panceta o tocino	Bocaditos de pavo
Galletas saladas/Chicharrón de cerdo	Palomitas de maíz simples
Salsas envasadas	Salsas picantes/Picante/Sriracha
Aceitunas/Pepinillos/Jalapeños	Fruta fresca/Verduras frescas
Salsa de soya	Mrs. Dash/Ajo en polvo/Hojuelas de chile
Condimentos variados (Consultar etiqueta)	Jugo V-8 bajo en sodio
Jugo V-8	

Alimentos con alto contenido de azúcar:	Alimentos con bajo contenido de azúcar:
Gaseosas/refrescos comunes	Refrescos de dieta/Bebidas sin azúcar/Crystal Light
Caramelos/Dulces	Caramelos/Dulces sin azúcar
Pasteles/Tortas/Galletas/Tarta/Donas/Pop-Ups	Galletas sin azúcar
Salsa barbacoa/Ketchup/Salsa teriyaki	Salsas picantes/Sriracha/Salsa de soya
Helado	Barra tutone

Alimentos con alto contenido de grasa:	Alimentos con bajo contenido de grasa:
Papas fritas/Chicharrón de cerdo	Palomitas de maíz simples
Mayonesa/Aderezo para ensaladas	Mayonesa sin grasa/Aderezos sin grasa
Caramelos/Dulces (variedades de chocolate)	Caramelos/Dulces duros/Caramelos sin azúcar
Pasteles/Tortas/Galletas/Tarta/Donas/Pop-Ups	Galletas sin azúcar
Helado	Barra Fudge/Barra Tutone/Astro Pop

EDUCACIÓN PARA PACIENTES

Hábitos de Alimentación Saludable (Continuación)

CONSEJOS PARA UNA ALIMENTACIÓN SALUDABLE

Al elegir alimentos para comer, use estas pautas para controlar su peso.[6]

Come **MENOS** alimentos con alto contenido de grasa, azúcar y/o sal como:

- Sopas/Top Ramen/Cup O' Soup
- Cecina de res / Palitos de salchicha / Tocino / Queso para untar
- Pastel / Galletas / Pastel / Donuts / Pop
- Panqueques o panecillos dulces de jarabe con sabor a arce
- Papas fritas / Bocadillos de queso
- Caramelo
- Salsa BBQ / Ketchup / Salsa Teriyaki
- Arroz aromatizado
- Galletas saladas / chicharrones
- Salsas Empaquetadas
- Gelatina/Mermelada
- Helado / Sorbete
- Refresco regular / Gatorade

Coma **MÁS** verduras, frutas y granos integrales cuando estén disponibles.

- Estos alimentos más saludables están llenos de nutrientes para ayudar a mantener el estómago y los intestinos sanos.
- También tienen un mayor contenido de fibra, lo que te ayuda a sentirte más lleno después de comerlos y te ayuda a reducir el tamaño de las porciones.

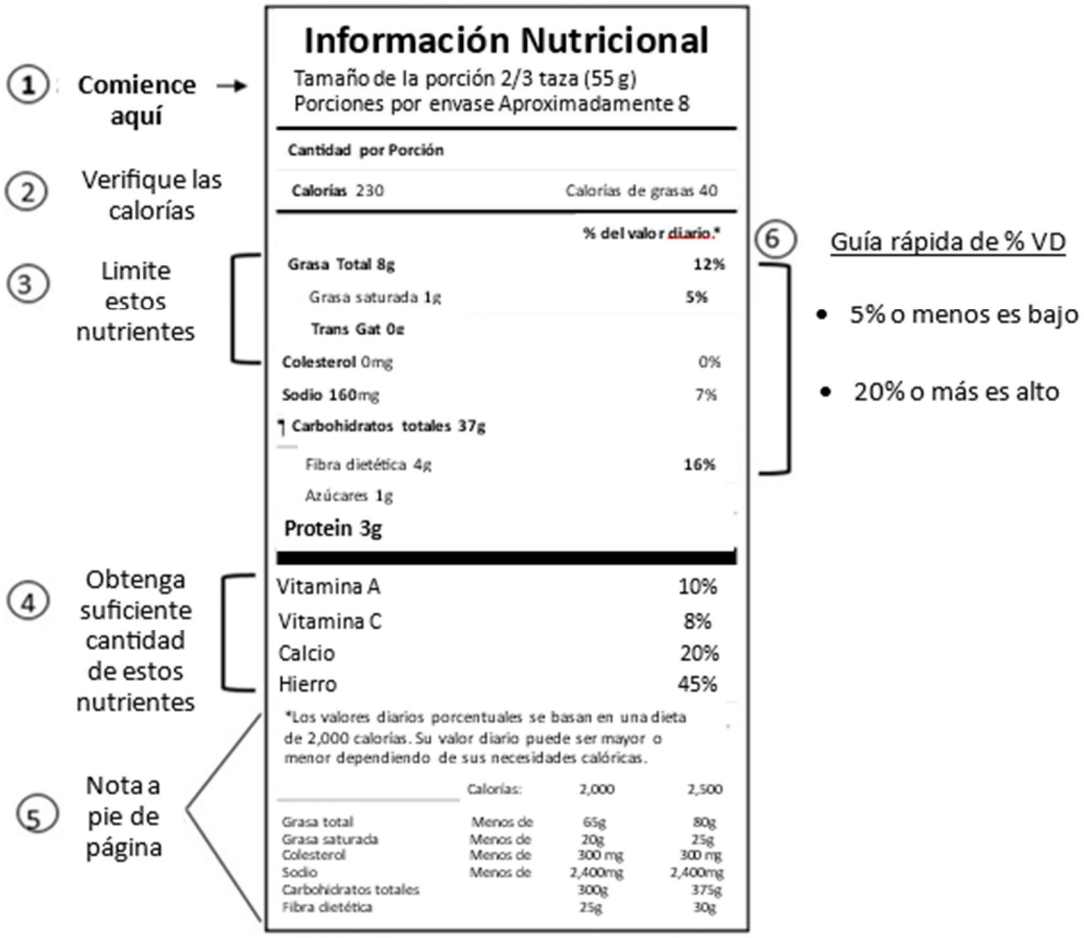
¡PIENSA EN ANTES DE COMER YNUESTRA COMIDA FAVORITAEN EL CANTEEN!

Artículo de la cantina	Tamaño de la porción	Calorías	para quemar calorías
Ramen	1 paquete	400	Caminata 70 minutos o Plancha durante 160 minutos
Tootsie Roll	1 Caramelo	123	Caminata 25 minutos o Jumping Jacks durante 25 minutos
Chicharrones de cerdo picantes y picantes	1 Bolsa	150	Caminata 30 minutos o Flexiones durante 30 minutos
Rocío de montaña	1 Lata	170	Caminata 35 minutos o Abdominales durante 35 minutos
Pepsi	1 lata	150	Camine 30 minutos o corra durante 15 minutos
Tortillas de harina	1X8 pulgadas	140	Camine 28 minutos o Sentadillas durante 90 minutos
Barra de granola	1 barra	100-150	Camine 20-30 minutos o Burpees durante 6-9 minutos

Recuerda: ¡Tu salud es tu responsabilidad! Disfruta de tu comida, pero presta atención a lo que estás comiendo y cuánto.

EDUCACIÓN PARA PACIENTES

Cómo Leer una Etiqueta Nutricional



1. Tamaño de la porción

- Esta sección muestra cuántas porciones hay en el paquete y qué tan grande es la porción.
- Recuerde que toda la información nutricional en la etiqueta se basa en una porción del alimento y un paquete generalmente contiene más de una porción.

2. Cantidad de calorías

- Las calorías enumeradas son para una porción de la comida. "Calorías de grasa" muestra cuántas calorías de grasa hay en una porción.

3. Limite estos nutrientes

- Comer demasiada grasa, colesterol o sodio total puede aumentar su riesgo de enfermedad cardíaca, algunos tipos de cáncer o presión arterial alta.
- Trate de mantener estos nutrientes lo más bajos posible todos los días.

4. Obtenga suficiente cantidad de estos nutrientes

- Comer suficiente fibra dietética, vitamina A, vitamina C, calcio y potasio puede mejorar su salud y Ayudar a reducir el riesgo de algunas enfermedades.

5. Nota a pie de página

- Esta sección contiene valores diarios (DV) para dietas de 2,000 y 2,500 calorías. Proporciona las cantidades recomendadas de nutrientes, grasas, sodio y fibra.
- La nota al pie se encuentra solo en paquetes más grandes y no cambia de un producto a otro.

6. Porcentaje (%) Valor diario

- Esta sección le explica cómo los nutrientes de una porción de alimento se suman a su dieta diaria total.
- Úselo para elegir alimentos que sean ricos en los nutrientes que debe obtener más y bajos en los nutrientes de los que debe obtener menos.

EDUCACIÓN PARA PACIENTES

Seguimiento de los Alimentos

Escribir lo que come le ayuda a tener una visión honesta de sus hábitos alimenticios y puede ayudarle a hacer cambios saludables. Al llevar un registro de todo lo que come desde que se despierta hasta que se acuesta, puede ver exactamente qué, cuánto, cuándo y por qué está comiendo. Puede que empiece a notar patrones que le impiden comer de forma más saludable.

Un diario de alimentos debería incluir:

- Fecha y hora en que se come la comida
- Qué tipo de comida comió
- Cuánto comió

También puede incluir cómo se siente cuando decide comer. Llevar un registro de cómo se siente cuando quiere comer puede ayudarle a aprender si hay ciertas emociones o sentimientos que le hacen querer comer, además de tener hambre.

Al revisar su diario de alimentos, pregúntese lo siguiente:

- ¿Comí alimentos saludables para las comidas y meriendas?
- ¿Cómo estuvieron los tamaños de las porciones?
- ¿Hay algún patrón de alimentación en el que pueda elegir mejor?

En una hoja en blanco, puede crear su propio diario de alimentos como el que se muestra en el **ejemplo a continuación**:

Nombre: _____ Fecha: _____

Hora del día/comida	Tipo de comida	Porción	Humor
Desayuno	Huevos	3	Cansado
Desayuno	Plan blanco tostado	2 rebanadas	Cansado
Almuerzo	Manzana	Entera	Bueno

EDUCACIÓN PARA PACIENTES

Seguimiento del Ejercicio

Una parte importante de cualquier programa de control de peso es la actividad física. Un diario de ejercicios puede ayudarle a seguir su progreso y revisar qué está funcionando y qué no está funcionando para usted. Debería llevar un diario de sus actividades físicas diarias como parte de su camino hacia un estilo de vida saludable.

Llevar un diario de ejercicios también puede ayudar a:

- Aumentar la motivación
- Desglosar los objetivos en metas más pequeñas y fáciles de alcanzar
- Seguir el progreso hacia los objetivos
- Obtener una mejor comprensión de sus hábitos de ejercicio.
- Planificar días de descanso
- Proporcionar un registro del éxito

Un diario de ejercicios debe ser lo suficientemente detallado como para ayudarle a alcanzar sus objetivos y debe incluir:

- Fecha y hora del entrenamiento
- Qué ejercicio completó
- El número de repeticiones (reps) completadas en cada serie
- El número de series completadas
- El nivel de dificultad: si el ejercicio es demasiado fácil, considere aumentar sus repeticiones, series y/o duración.

En una hoja en blanco, puede crear un diario de ejercicios personalizado como el que se muestra **en el ejemplo a continuación**:

Nombre: _____ Fecha: _____

Ejercicio	Conjunto 1 Peso/repeticiones	Conjunto 2 Peso/repeticiones	Conjunto 3 Peso/repeticiones	Reposo segundo, por cierto representantes	Tiempo total
Corriendo (lunes)					
Levantamiento de pesas					
Sentadillas					

EDUCACIÓN PARA PACIENTES

EJERCICIO

¿CUÁLES SON LOS BENEFICIOS DEL EJERCICIO?

El ejercicio tiene muchos beneficios. Puede:

- Reducir el estrés inmediatamente
- Mejorar el estado de ánimo inmediatamente
- Mejorar su enfoque inmediatamente
- Mejorar el sueño inmediatamente
- Quemar calorías, lo que ayuda a las personas a controlar su peso
- Ayuda a controlar los niveles de azúcar en la sangre en personas con diabetes
- Reducir la presión arterial, especialmente en personas con hipertensión.
- Mantener los huesos fuertes para que no se vuelvan débiles y no se rompan fácilmente
- Reducir la probabilidad de morir por enfermedades cardíacas
- Ayudar a su memoria
- Mejorar la salud del cerebro
- Reducir el riesgo de cáncer
- Reducir el riesgo de caídas y el riesgo de lesiones relacionadas con caídas en pacientes mayores

¿CUÁLES SON LOS PRINCIPALES TIPOS DE EJERCICIO?

Hay 3 tipos principales de ejercicio que debería hacer. Éstos son:

- **El ejercicio aeróbico** (también conocido como cardio) aumenta la frecuencia cardíaca de una persona. Ejemplos incluyen caminar, correr o hacer saltos de tijera.
- **Entrenamiento de resistencia**: ayuda a fortalecer sus músculos. Las personas pueden hacer este tipo de ejercicio utilizando su propio peso corporal.
- **Estiramiento:** Los ejercicios de estiramiento ayudan a que sus músculos y articulaciones se muevan con más facilidad y le ayudan con el dolor muscular

¿DEBO HABLAR CON MI MÉDICO O ENFERMERA ANTES DE EMPEZAR A HACER EJERCICIO?

Si nunca ha hecho ejercicio antes o hace mucho tiempo que no lo hace, hable con su médico o enfermera antes de comenzar un programa de ejercicio.

Si tiene una enfermedad cardíaca o factores de riesgo para enfermedad cardíaca (como presión arterial alta o diabetes), su médico o enfermera podría recomendarle que se hagas una prueba de ejercicio antes de comenzar un programa de ejercicio.

EDUCACIÓN PARA PACIENTES

EJERCICIO (Continuación)

¿QUÉ DEBO HACER CUANDO HAGO EJERCICIO?

Cada vez que hace ejercicio, debe:

- **Calentamiento**: El calentamiento puede ayudar a evitar lesiones al hacer ejercicio. Para hacer el calentamiento, haga un ejercicio aeróbico ligero (como caminar lentamente) o estírese durante 5 a 10 minutos.
- **Entrenamiento**: Durante un ejercicio, puede caminar rápido o correr, por ejemplo. También debe estirar todas sus articulaciones, incluyendo el cuello, los hombros, la espalda, las caderas y las rodillas. Al menos 2 veces por semana, puede agregar ejercicios de entrenamiento de resistencia a su rutina de ejercicios.
- **Enfriamiento**: Enfriarse ayuda a evitar que se sienta mareado después de hacer ejercicio y previene los calambres musculares. Para enfriarse, puede estirarse o hacer ejercicio aeróbico ligero durante 5 minutos.

¿CON QUÉ FRECUENCIA DEBO HACER EJERCICIO?

Los médicos recomiendan que las personas realicen ejercicio cardiovascular de intensidad moderada durante al menos 150-300 minutos por semana, preferiblemente distribuidos a lo largo de la semana y al menos dos días a la semana de "entrenamiento de resistencia". Si tiene poco tiempo, comience con solo 5 minutos. Todo cuenta.

¿CUÁNDO DEBO HABLAR CON MI MÉDICO O ENFERMERA?

¡Si tiene alguno de los siguientes síntomas cuando hace ejercicio, deténgase y hable con su médico o enfermera de inmediato!

- Dolor o presión en el pecho, brazos, garganta, mandíbula o espalda
- Náuseas o vómitos
- Sentir que su corazón está palpitando o latiendo muy rápido
- Sentirse mareado o a punto de desmayarse

¿QUÉ PASA SI ESTOY DEMASIADO CANSADO PARA HACER EJERCICIO?

Es importante tratar de encontrar tiempo para hacer ejercicio, incluso si está cansado. El ejercicio puede aumentar sus niveles de energía, lo que incluso podría ayudarle a hacer más cosas.

Pasar mucho tiempo sentado es malo para la salud. Intente levantarse y moverse siempre que pueda.

¿QUÉ MÁS DEBO HACER CUANDO HAGO EJERCICIO?

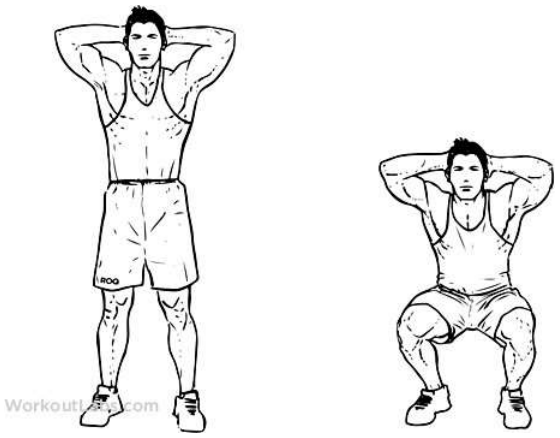
Para hacer ejercicio de forma segura y evitar problemas, asegúrese de:

- Beber líquidos antes y después de hacer ejercicio (las bebidas no deben contener cafeína
- Limitar el ejercicio al aire libre si hace demasiado calor o frío.
- Usar capas de ropa para que pueda quitárselas si le da mucho calor.
- Usar calzado que le quede bien y apoye sus pies. Usar calzado que le quede bien y apoye sus pies.

EDUCACIÓN PARA PACIENTES

Guía Básica de Ejercicios con el Peso Corporal

SENTADILLAS CON SU PESO CORPORAL

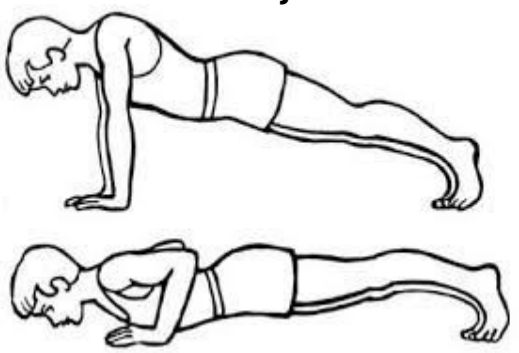


Ayudan a fortalecer sus piernas.

1. Póngase de pie con los pies separados a la anchura de los hombros.
2. Mantenga su peso en los talones todo el tiempo.
3. Mantenga la parte baja de la espalda recta; no permita que se arquee o se extienda.
4. Sus rodillas deben mantenerse alineadas con sus tobillos y piernas durante todo el movimiento (asegúrese de que sus rodillas no se vayan hacia adentro o hacia afuera al bajar).
5. Siéntese, como si estuviera sentado en una silla, hasta que sus caderas lleguen al nivel de sus rodillas.
6. Repita_____veces.

**PRECAUCIÓN si tiene problemas en las rodillas, espalda o tobillos*

LAGARTIJAS

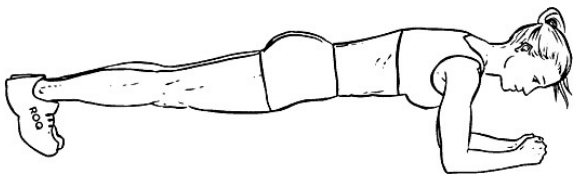


Ayudan a fortalecer los brazos, hombros, espalda y tronco.

1. Mantenga su torso (tronco) y piernas en línea recta todo el tiempo.
2. Mantenga la cabeza mirando hacia adelante.
3. Baje su pecho cerca del suelo, pero no lo toque.
4. Use sus brazos para empujarse hacia arriba, exhalando mientras empuja.
5. Repita_____veces.

**PRECAUCIÓN si tiene problemas de espalda, tobillo, hombro o cuello*

PLANCHAS



Ayudan a desarrollar la fuerza del torso (tronco).

1. Mantenga el torso recto, sin permitir que la parte baja de la espalda se arquee o que las caderas cedan.
2. Aumente gradualmente el tiempo que puede mantener la posición.
3. Manténgala durante 30 segundos a 1 minuto y luego relájese.

**PRECAUCIÓN si tiene algún problema de espalda, hombro, tobillo, o cuello*

Ayudan a desarrollar la fuerza del torso (tronco).

1. Acuéstese boca arriba con las rodillas flexionadas.
2. Levante lentamente la espalda, utilizando los abdominales para incorporarse a una posición sentada.
3. Asegúrese de que sus pies permanezcan en el suelo.
4. Baje su torso hacia el suelo.
5. Repita_____veces.

**PRECAUCIÓN si tiene problemas de espalda o cuello*

SENTADILLAS

EDUCACIÓN PARA PACIENTES

Ejercicios Modificados para Pacientes Mayores u Obesos

7 EJERCICIOS FÁCILES

Intente hacer estos ejercicios dos veces por semana para aumentar su fuerza, equilibrio y flexibilidad.

Calentamiento

1. Marcha estacionaria con movimiento de brazos/Marcha sentada

Ejercicios de fuerza

2. Sentarse y levantarse

3. Extensión de cadera de pie

Ejercicios de equilibrio

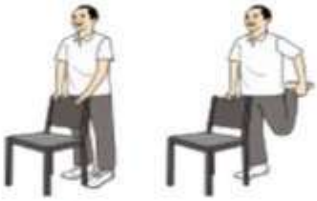
4. Elevación lateral de pierna

5. Levantamiento de una pierna estando de pie

Ejercicio de flexibilidad

6. Estiramiento de tríceps

Enfriamiento



7. Estiramiento de cuádriceps de pie

EDUCACIÓN PARA PACIENTES

Cambios de Comportamiento

Grupos de apoyo: Una de las partes más valoradas de los grupos de apoyo es que usted puede aprender de sus compañeros.

- La educación en enfermería ha creado muchos módulos de educación para pacientes sobre comportamientos saludables. Consulte con su institución para verificar la disponibilidad de los planes de estudio de Nursing Led Therapeutic Group (NLTG).

Mejorar el sueño

El sueño tiene mucho que ver con el funcionamiento de su cuerpo, incluyendo sus niveles de hambre, los niveles hormonales que afectan su respuesta al estrés y a la comida. Por lo tanto, afecta su salud y peso. Es importante obtener un sueño de buena calidad y la cantidad suficiente de sueño abordando la higiene del sueño y el afrontamiento al estrés. Hay algunas afecciones médicas que afectan el sueño**,** como la apnea obstructiva del sueño, la depresión, el insomnio, etc. Hable con su médico si tiene dificultades para conciliar el sueño, se siente deprimido o se despierta sin sentirse descansado y le han dicho que ronca habitualmente.

Medicamentos para pacientes con diabetes, cardiopatía, hígado graso o apnea del sueño

Si padece diabetes, cardiopatía, hígado graso o apnea del sueño, su médico puede recetarle un medicamento por inyección para ayudarlo a proteger su salud. Este medicamento funciona haciéndolo menos hambriento y ralentizando su movimiento intestinal. Podrías sentir náuseas y vómitos, lo que generalmente ocurre cuando comienzas a tomar el medicamento. Siguiendo estos consejos, podría evitar o disminuir los efectos secundarios.

Aquí hay algunos consejos útiles:

- Come despacio.
- Coma comidas más pequeñas.
- Comience las comidas comiendo primero su proteína, luego coma sus verduras.
- Evite los alimentos ricos en grasas.
- Evite los alimentos dulces y picantes.
- Come solo si tienes mucha hambre y deja de comer cuando te sientas lleno.
- No se acueste después de comer.
- Trate de no ser demasiado activo después de comer.
- No coma demasiado cerca de la hora de acostarse.
- Evite beber de una pajita.
- Beba suficiente líquido, especialmente con vómitos o diarrea. Consulte con su médico para conocer la cantidad específica.
- Manténgase físicamente activo.
- Haga entrenamiento de fuerza o entrenamiento de resistencia para no perder músculo mientras pierde peso.
- Notifique a sus médicos si tiene náuseas persistentes con o sin vómitos, o estreñimiento, o tiene otras inquietudes.

INFORMACIÓN DEL PACIENTE

Paquete de Información para Pacientes de Cirugía Bariátrica

¿Qué es la cirugía bariátrica?

- La cirugía bariátrica (a veces llamada "bypass gástrico") incluye diferentes tipos de cirugía en el estómago y/o intestinos para ayudar a una persona a perder peso. No es la cura para la obesidad. La cirugía para bajar de peso no garantiza una pérdida de peso fácil y constante.
- La cirugía fracasará si no se siguen los cambios necesarios de por vida, incluyendo una dieta adecuada y ejercicio.

¿Quién es elegible para la cirugía bariátrica?

- Pacientes con un IMC superior a 40 (también conocido como obesidad de Clase 3)
- Pacientes con un IMC entre 35 y 39.9 (Obesidad Clase 2) que también tienen un problema médico grave relacionado con su obesidad.

Los pacientes deben:

- Tener al menos 2 años restantes antes de su fecha de libertad condicional o liberación.
- Poder tomar sus propias decisiones médicas.
- Entender que algunas cirugías a menudo tienen cambios duraderos en el cuerpo y pueden ocurrir efectos secundarios graves que permanecen para siempre.
- Participar activamente en el Programa de Manejo Médico del Peso en las áreas de dieta, ejercicio, medicamentos y suplementos.
- Ser evaluado por proveedores y otros profesionales de la salud antes de la cirugía.
- Entender que es posible que necesite ser trasladado a otra instalación 2 semanas antes de la cirugía y permanecer allí hasta que pueda comer alimentos sólidos con comodidad y seguir las recomendaciones alimenticias.

¿Quién no puede someterse a una cirugía bariátrica?

En general, la cirugía bariátrica **no se recomienda** para pacientes:

- Con depresión grave u otros trastornos de salud mental que no estén bajo control.
- Con trastornos de la conducta alimentaria (por ejemplo, bulimia) que no estén bajo control.
- Con antecedentes de ingestión o introducción de cuerpos extraños.
- Que actualmente fuman o consumen drogas y/o alcohol de manera abusiva.
- Con problemas graves del corazón o de los pulmones que puedan hacer que la cirugía sea demasiado riesgosa.
- Con daño hepático grave o antecedentes de problemas de coagulación sanguínea.
- Que estén embarazadas, en período de lactancia, o que planeen un embarazo dentro de los 2 años posteriores a un posible tratamiento quirúrgico.
- Con antecedentes de no seguir intervenciones de estilo de vida, médicas o de salud mental.
- Que no puedan seguir de por vida las indicaciones para tomar vitaminas y minerales necesarios después de algunas cirugías.
- Que se encuentren en edad avanzada (mayores de 65 años) o en edad muy temprana (menores de 18 años), ya que la cirugía bariátrica es controversial, aunque se considera cuando las comorbilidades son graves.

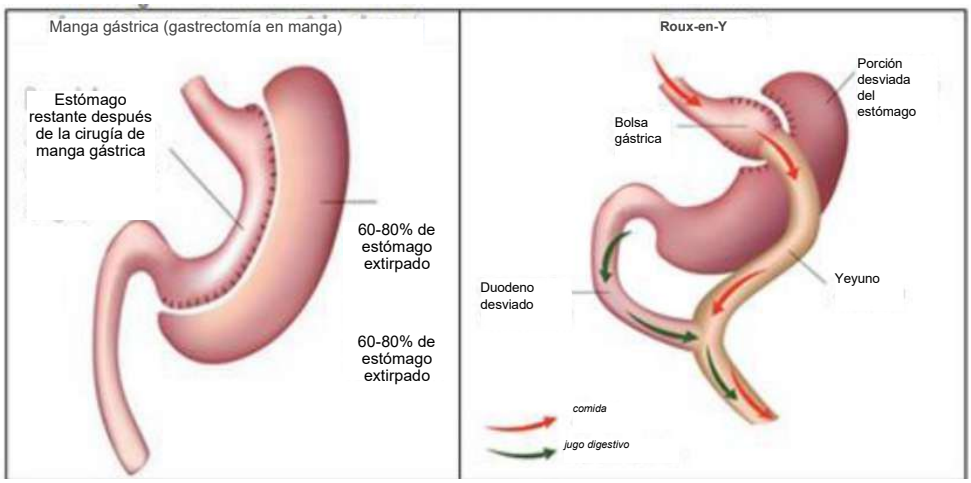
INFORMACIÓN DEL PACIENTE

Paquete de Información para Pacientes de Cirugía Bariátrica (Continuación)

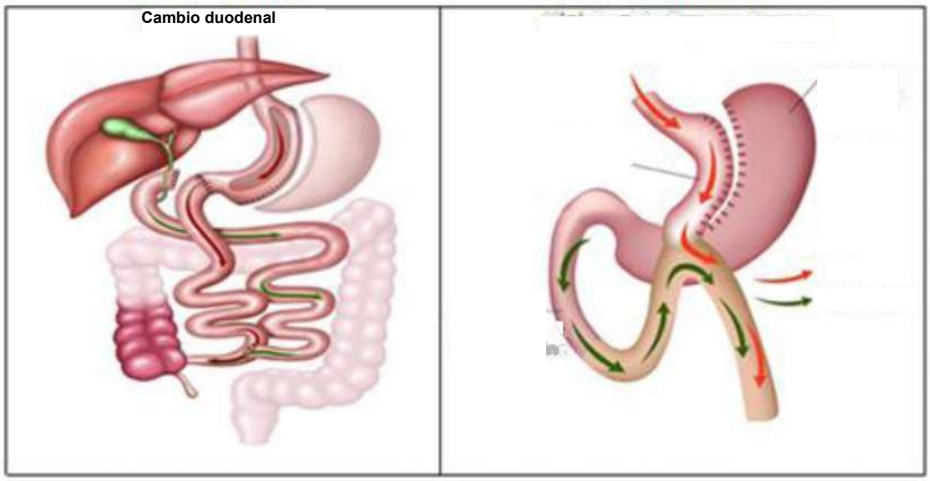
¿Cuáles son los diferentes tipos de cirugía bariátrica?

El tipo de cirugía que recibe un paciente se decide en base a la elección del cirujano y del hospital sobre lo que es mejor para ese paciente en particular. Hay dos tipos principales de cirugías bariátricas.

3. **Restrictiva:** La cirugía se utiliza para limitar la cantidad de comida que el estómago puede contener. Esto hace que los pacientes se sientan llenos mucho más rápido después de comer que antes de la cirugía. Estas cirugías incluyen:
    - Gastrectomía en manga también conocida como manga gástrica:
      Roux-en-Y (pronunciado ru-en-guay) Bypass Gástrico



4. **Cirugía de malabsorción**: Cirugía que reorganiza y/o elimina parte del sistema digestivo de un paciente, lo que limita la cantidad de calorías, minerales y/o vitaminas solubles en grasa que su cuerpo puede absorber. Estas cirugías incluyen:
    - Cambio duodenal
    - Bypass gástrico Roux-en-YBy
    - Bypass gástrico mini



INFORMACIÓN DEL PACIENTE

Paquete de Información para Pacientes de Cirugía Bariátrica (Continuación)

¿Qué puede esperar si se somete a una cirugía bariátrica?

- La cirugía de pérdida de peso se realiza en el hospital.
- Se utiliza anestesia general, lo que significa que los pacientes están dormidos durante el procedimiento.
- La mayoría de los tipos de cirugía bariátrica se realizan utilizando un pequeño tubo con una cámara adjunta (llamado laparoscopio).
  - El laparoscopio (tubo) se inserta a través de pequeñas incisiones en el estómago.
  - La pequeña cámara en la punta del laparoscopio permite al cirujano ver y operar dentro del estómago de un paciente.
- La cirugía suele durar varias horas, y el personal médico monitorea cualquier complicación.
- Las estancias en el hospital pueden durar de 1 a 3 días.

¿Cuáles son los riesgos y efectos secundarios de la cirugía bariátrica?

Todas las cirugías conllevan riesgos. El cirujano explicará todos los posibles riesgos y/o efectos secundarios y responderá cualquier pregunta que los pacientes puedan tener. Algunos posibles riesgos y efectos secundarios se enumeran a continuación.

Efectos secundarios comunes:

- Riesgos relacionados con la anestesia: ataque al corazón, accidente cerebrovascular, ceguera o muerte
- Náuseas crónicas, vómitos y/o acidez estomacal
- Estreñimiento
- Hemorragia
- Incapacidad para comer ciertos alimentos sin malestar o enfermarse
- Infección
- Obstrucción del estómago
- Aumento de peso o incapacidad para perder peso
- **Deficiencia** de ciertas vitaminas y minerales que puede causar daños graves, a veces permanentes, en su cuerpo, como en el cerebro y el sistema nervioso.

Efectos secundarios a largo plazo:

- Bajo nivel de azúcar en la sangre
- Hipotensión arterial
- Náuseas crónicas, vómitos y/o acidez estomacal
- **Desnutrición**
- Úlceras
- Obstrucción o fugas en los intestinos
- Necesidad de una cirugía adicional
- Hernias
- Anemia
- Cicatrices/Pérdida de cabello/Piel flácida

¿Cómo puede reducir algunos posibles efectos secundarios?

- Perder peso
- Aumentar la cantidad de ejercicio
- Dejar de fumar
- Seguir todos los requisitos de la dieta preoperatoria y postoperatoria

INFORMACIÓN DEL PACIENTE

Paquete se Información para Pacientes de Cirugía Bariátrica (Continuación)

DIETA ESPECIAL PARA CIRUGÍA BARIÁTRICA

Su equipo de atención médica le explicará los detalles de las dietas preoperatorias y postoperatorias. La cirugía puede no ser exitosa si no se sigue la dieta preoperatoria y postoperatoria. A continuación, encontrará los detalles de la dieta.

2 semanas *antes* de la cirugía

Dos semanas antes de la cirugía, su cirujano le pedirá que siga una dieta especial para reducir el tamaño de su hígado y prepararse para una cirugía exitosa. Los elementos enumerados a continuación son un ejemplo de alimentos/bebidas permitidos para usted durante este período y pueden variar dependiendo de las instrucciones del cirujano y la instalación en la que se encuentre. Puede consumir agua ilimitada. Asegúrese de dejar de consumir alcohol, cafeína y bebidas carbonatadas.

- Suplemento nutricional líquido (LNS)
- Huevos duros
- Yogur griego
- Crema de cacahuate/maní
- Pollo
- Ensalada de atún

Necesita beber todas las bebidas y líquidos muy lentamente. Los líquidos no deben tomarse con las comidas, y los pacientes deben esperar al menos 30 minutos después de una comida antes de tomar cualquier tipo de líquido. (La separación de líquidos y sólidos ocurre después de la cirugía, pero es bueno comenzar a desarrollar este hábito antes de la cirugía).

La mayoría de los cirujanos le pedirán que solo tome líquidos claros durante 24 horas y que no coma después de la medianoche, antes del día de la cirugía.

Etapas de la dieta postoperatoria bariátrica

Usted irá haciendo una transición gradual de líquidos claros a otros tipos de alimentos durante su recuperación. La duración de cada etapa varía dependiendo del tipo de cirugía, la práctica de su cirujano, su recuperación, la aceptación de su cuerpo de los alimentos y el resultado de su pérdida de peso. Es muy importante seguir los requisitos de la dieta y nutrición, incluyendo vitaminas, para mantenerse saludable y evitar recuperar peso y complicaciones de salud graves. A continuación se presenta un breve resumen de cada etapa, seguido de algunos ejemplos de alimentos que podría ver en cada etapa.

Etapa uno - Líquidos claros:
Inmediatamente después de la cirugía, se le colocará en una dieta de líquidos claros. Su estómago podrá contener de 1 a 2 onzas de líquido a la vez. Asegúrese de ir despacio, sorber y no tragar. Intente tomar 1 onza de líquido cada 15 minutos, con el objetivo de 64 onzas diarias.

Etapa Dos - Líquidos Completos:
En esta etapa de la dieta, seguirás consumiendo líquidos claros pero agregará otros líquidos como LNS. Es muy importante consumir suficiente proteína (70 a 90 gramos al día) durante esta etapa de la dieta. Una vez más, su objetivo es beber 64 onzas de líquidos y tomar todos los batidos de proteínas que se le han proporcionado. Si le resulta difícil consumir todos sus batidos de proteínas, pruebe agregando agua.

Etapa Tres - Puré:
En esta etapa de la dieta, comenzará a agregar alimentos no líquidos a su dieta en forma de puré. La consistencia de la comida debe ser similar a la compota de manzana, el pudín o la comida para bebés. Necesitará empezar a separar los alimentos sólidos y líquidos y comer lentamente. Asegúrese de esperar 30 minutos para beber antes y después de las comidas. Su objetivo es consumir 64 onzas de líquido y 70-90 gramos de proteína al día.

Los alimentos pueden tener un sabor diferente y ser tolerados de manera distinta después de la cirugía. Necesita agregar nuevos alimentos lentamente, uno por uno.

INFORMACIÓN DEL PACIENTE

Paquete se Información para Pacientes de Cirugía Bariátrica (Continuación)

Etapa Cuatro - Dieta blanda:

En esta etapa de la dieta, se pueden incluir alimentos de las etapas 1 a 3. Asegúrese de masticar bien todos los alimentos, ya que la digestión comienza en la boca, y se recomienda masticar alrededor de 20-30 veces por bocado. Trate de consumir 64 onzas de líquidos y 70-90 gramos de proteína al día. Esto debería dividirse en 4-6 comidas pequeñas al día. Recuerde esperar 30 minutos antes y después de cada comida para beber líquidos.

Evite estos alimentos:

- Tallos de brócoli, apio y elote

Etapa Cinco - Mantenimiento:

Continúe incluyendo alimentos de las etapas anteriores de la dieta y gradualmente pruebe nuevos alimentos sólidos. Recuerde masticar bien todos los alimentos y tomarse su tiempo para completar tus comidas (20-30 minutos). Tenga en cuenta que aunque la capacidad de su estómago aumentará con el tiempo, nunca debe comer más de una taza (8 oz.) de comida a la vez.

Se le anima a:

- Comer tres comidas pequeñas al día.
- Consumir primero alimentos ricos en proteínas, seguidos de verduras y frutas suaves, y luego alimentos ricos en almidón al final.
- Masticar bien la comida antes de tragar.
- Dejar de comer o beber cuando esté lleno.
- Dejar de beber líquidos 30 minutos antes de cada comida.
- Esperar al menos 30 minutos después de una comida para beber.
- Nunca comer más de 8 oz o 1 taza de comida de una sola vez.
- Evitar el azúcar y los dulces.
- Evitar comer meriendas a menos que lo ordene el médico PCP o el dietista RD.
- Tomar las vitaminas diarias recomendadas.
- 70-90 gramos de proteína al día.
- Incorporar el ejercicio en su rutina diaria.
- Evitar los dulces concentrados, los azúcares añadidos, los alimentos altos en grasa y las bebidas carbonatadas de por vida.

Alimentos a evitar durante 6 meses:

- Pan
- Pasta
- Arroz
- Tortillas
- Waffles/Panqueques
- Mollete/rosquilla
- Cereal seco
- Galletas
- Palomitas de maíz

INFORMACIÓN DEL PACIENTE

Paquete se Información para Pacientes de Cirugía Bariátrica (Continuación)

Ejemplos de alimentos para cada etapa:

Dieta postoperatoria etapa uno Líquidos claros	Dieta postoperatoria etapa dos Líquidos completos	Dieta postoperatoria Etapa Tres Alimentos puré	Dieta postoperatoria Etapa Cuatro Blanda	Dieta postoperatoria Etapa Cinco Mantenimiento
Agua	LNS	Huevos revueltos	Huevos revueltos	Carnes magras y aves de corral
Caldo	Sopa	Puré de verduras enlatadas	Pechuga de pavo con salsa gravy	Ensalada
Café descafeinado	Caldo	Puré de frutas enlatadas	Frutas y verduras enlatadas o cocidas	Frijoles
Crystal-Light	Gelatina	Carne o pescado en puré	Queso en rebanadas	Nueces/crema de cacahuate
Gelatina sin azúcar	Leche	LNS	LNS	Toda la fruta blanda sin cáscara

Directrices para la dieta de por vida

- Comer tres comidas pequeñas al día.
- Consumir primero alimentos ricos en proteínas, seguidos de verduras y frutas suaves, y luego alimentos ricos en almidón al final.
- Masticar bien la comida antes de tragar.
- Dejar de comer o beber cuando se empiece a sentir lleno.
- Dejar de beber líquidos 30 minutos antes de cada comida.
- Esperar al menos 30 minutos después de una comida para beber.
- Beber agua durante todo el día.
- Evitar el azúcar y los dulces.
- Evitar comer entre comidas a menos que lo ordene su médico de atención primaria o dietista.
- Tomar las vitaminas diarias recomendadas.
- Evitar los refrescos y las bebidas carbonatadas.
- Evitar las bebidas alcohólicas.
- Evitar muchos alimentos del comedor, ya que no son buenos para su cuerpo. Consulte a un dietista o médico si siente hambre entre comidas.