VA/DoD CLINICAL PRACTICE GUIDELINE

Screening and Management of Overweight and Obesity

KEY ELEMENTS OF THE GUIDELINE

- Obesity is a chronic disease requiring lifelong commitment to treatment and long-term maintenance
- Obesity may not be the chief complaint in a patient encounter, yet it requires foremost attention
- The primary care team plays an integral role in weight management
- Screening, documentation, and regular assessment are critical to weight management
- Assessment for obesity-associated chronic health conditions is an essential component of treatment decisions
- Shared decision-making and assessment of patient motivation are fundamental to weight management
- Comprehensive lifestyle intervention is central to successful and sustained weight loss
- Tangible intermediate and long-term weight loss goals are critical to weight loss success
- Energy deficit should be achieved through decreased caloric intake and increased physical activity
- Pharmacotherapy and bariatric surgery may be considered as adjuncts to comprehensive lifestyle intervention

Access to full guideline and toolkit:
http://www.healthquality.va.gov or,
https://www.qmo.amedd.army.mil
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VA/DoD Evidence-Based Practice

Algorithm A: *Screening and Assessment of Obesity*

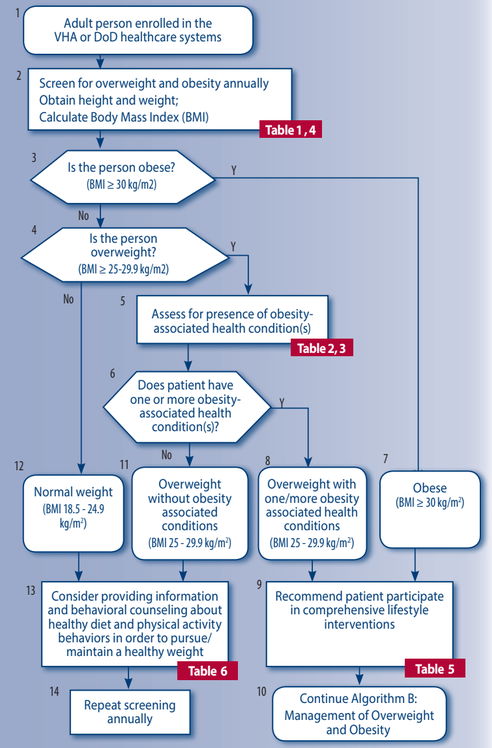


TABLE 1 Classification of Overweight and Obesity by BMI

Classification	BMI (kg/m²)*
Underweight	< 18.5
Normal	18.5 – 24.9
Overweight	25.0 – 29.9
Obese I	30.0 – 34.9
Obese II	35.0 – 39.9
Obese III	≥ 40.0

* Disease risk for obesity-associated chronic health conditions is directly correlated with increasing BMI and waist circumference (WC)

Gender-specific cutoffs for increased waist circumference:
- Men waist circumference > 40 inches (102 centimeters)
- Women waist circumference > 35 inches (88 centimeters)

TABLE 2 Common Obesity-Associated Conditions *

The following conditions are directly influenced by weight:

- Hypertension **
- Type 2 diabetes and pre-diabetes **
- Dyslipidemia **
- Metabolic syndrome
- Obstructive sleep apnea
- Degenerative joint disease
- Non-alcoholic fatty liver disease

* Increased waist circumference is considered an obesity comorbidity equivalent
** At least moderate evidence exists for modifying these conditions with weight loss

TABLE 3 Diagnosis of Metabolic Syndrome [NCEP ATP-III, 2002]

Three or more of the following risk factors indicate metabolic syndrome:

Abdominal obesity:	- Men* > 40 inches (>102 centimeters) - Women > 35 inches (>88 centimeters)
Triglycerides	≥ 150 mg/dL
HDL cholesterol:	Men < 40 mg/dL - Women < 50 mg/dL
Blood pressure	≥ 130/85 mmHG
Fasting glucose	≥ 100 mg/dL

** Some men can develop multiple metabolic risk factors when the WC is only marginally increased (e.g., 37-39 in (94-102 cm). Such persons may have a strong genetic contribution to insulin resistance, and should benefit from lifestyle changes (i.e., diet, exercise).*

TABLE 4 BMI Upper Limits for Overweight and Obesity

	Normal	*Overweight*	*Obese*		
BMI(kg/m²)	25	30	35	40	45
			Stage 1	*Stage 2*	*Stage 3*
Height (inches)	*Body Weight (pounds)*				
58	119	143	167	191	215
59	124	148	173	198	222
60	128	153	179	204	230
61	132	158	185	211	238
62	136	164	191	218	246
63	141	169	197	225	254
64	145	174	204	232	262
65	150	180	210	240	270
66	155	186	216	247	278
67	159	191	223	255	287
68	164	197	230	262	295
69	169	203	236	270	304
70	174	209	243	278	313
71	179	215	250	286	322
72	184	221	258	294	331
73	189	227	265	302	340
74	194	233	272	211	350
75	200	240	279	319	359
76	205	246	287	328	369

TABLE 5 Comprehensive Lifestyle Intervention

Intervention that combines dietary, physical activity, and behavioral components and includes at least 12 intervention sessions over a 12 month period

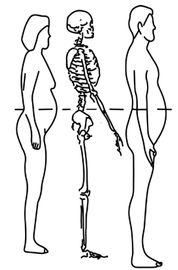
TABLE 6 Behavioral Counseling

Healthcare staff-delivered activities to assist patients to adopt, change or maintain healthy dietary and physical activity behaviors

TABLE 7 Principles and Core Strategies of Motivational Interviewing

- Resist directing
- Understand the patient's motivation
- Listen with empathy
- Empower the patient by building confidence
- Ask open-ended questions to evoke change talk
- Provide affirmation, reflection, and summaries

- To measure waist circumference, locate the upper hip bone and the top of the right iliac rest.
- Place a measuring tape in a horizontal plane around the abdomen at the level of the iliac crest.
- Before reading the tape measure, ensure that the tape is snug, but does not compress the skin, and is parallel to the floor.
- The measurement is made at the end of a normal expiration.



Women > 35 inches

Men > 40 inches

There are ethnic- and age-related differences in body fat distribution that may affect the predictive validity of waist circumference as a surrogate for abdominal fat

Algorithm B: *Management of Overweight and Obesity*

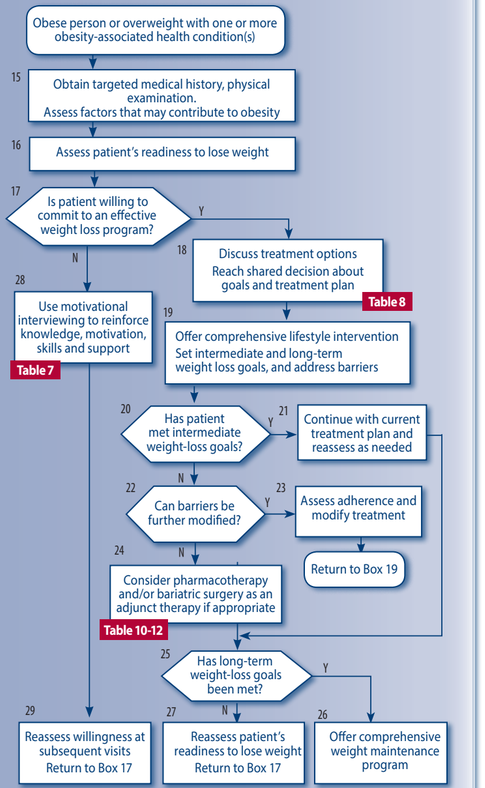


TABLE 8 Weight Loss Interventions

Patient Classification	Interventions Based on Risk and BMI		
	Level 1	Level 2	Level 3
Overweight BMI ≥ 25 kg/m² with obesity-associated condition(s) †	Diet, exercise, and behavior modification		
Obese BMI ≥ 30 kg/m², or BMI ≥ 27 kg/ m² with obesity-associated condition(s) †	Diet, exercise, and behavior modification	Consider drug therapy	
Obese BMI ≥ 40 kg/m², or BMI ≥ 35 kg/m² with obesity-associated condition(s) †	Diet, exercise, and behavior modification	Consider drug therapy	Consider surgery

† Obesity-associated conditions are listed in Table 2

TABLE 9 Nutrient Composition of the Dietary Approaches to Stop Hypertension (DASH)

NUTRIENT	Recommended Intake
Saturated Fat	6% of total calories
Total Fat	27% of total calories
Carbohydrate	55% of total calories
Fiber	30 grams/day
Protein	18% of total calories
Cholesterol	150 mg/day
Total calories (energy) *	Balance energy intake and expenditure to maintain desirable body weight/prevent weight gain.

* Daily calorie expenditure should include at least 30 minutes of moderate physical activity/day. To avoid weight gain, the total should be approximately 60 minutes per day.

Source: U.S. DHHS; NIH; NHLBI; Publication No. 06-4082; Revised April 2006.

TABLE 10 Selected Obesity Drug Therapy *

Orlistat -Gastrointestinal Lipase Inhibitor

Usual Dosage Range: 120 mg capsule three times daily

- Taken with or within 1 hour of each meal containing fat
- Omit dose if a meal is skipped or a meal contains no fat
- Must take once daily multivitamin (containing fat soluble vitamins A, D, E and K) at least 2 hours prior to orlistat

Cautions:

- Increased gastrointestinal events (adverse effects) when orlistat is taken with diet high in fat (greater than 30% total daily calories from fat)
- Contraindicated during pregnancy (FDA category X) and not recommended in breast-feeding mothers
- It is not known if orlistat is secreted in human breast milk. Orlistat should not be taken by breast-feeding mothers

Lorcaserin

Usual Dosage Range: 10 mg tablet two times a day (Maximum 20 mg/day)

- Taken with or without food
- Consider stopping after 12 weeks if lorcaserine has not been effective in reducing weight more than 5% of initial body weight

Cautions:

- Not recommended in severe renal impairment or end stage renal disease
- Has not been studied in severe hepatic impairment; use with caution
- Contraindicated during pregnancy (FDA category X) and not recommended in breast-feeding mothers

Phentermine/Topiramate

- **Dose Titration:** One phentermine 3.75 mg/topiramate 23 mg extended-release capsule each morning for 14 days; then increase to 7.5 mg/46 mg each morning for an additional 12 weeks
- If a weight loss of 3% of baseline body weight is not achieved discontinue or increase the dose to 11.25 mg/69 mg each morning for 14 days; then increased to 15 mg/92 mg (maximum dose) each daily
- If after 12 weeks on 15 mg/92 mg the patient has not lost at least 5% of baseline body weight, discontinue treatment gradually using every other day weaning over one week thereby decreasing risk of seizure

Cautions:

- Dose in patients with renal Impairment should not exceed 7.5 mg/46 mg once daily if creatinine clearance <50 mL/min, and avoid in severe renal disease
- The dose in moderate hepatic impairment (Child-Pugh 7-9) should not exceed 7.5 mg/46 mg once daily, and avoid use in severe hepatic impairment
- Contraindicated during pregnancy (FDA category X) and not recommended in breast-feeding mothers

** Drug is indicated if BMI is ≥30 kg/m2 or ≥27 kg/m2 with one or more obesity-associated condition*

TABLE 11 Drug or Nutrient Interaction with Anti-Obesity Agents

Orlistat

- May decrease cyclosporine whole blood concentrations (possibly resulting in a decrease in the immunosuppressive action of cyclosporine) monitor and adjust as necessary. Take cyclosporine 2 hours before or after orlistat. More frequent monitoring of cyclosporine levels should be considered.
- May decrease absorption of some fat soluble vitamins (A, D, E, and K). Levels of vitamin D and beta-carotene may be low in obese patients compared with non-obese subjects. The supplement should be taken 2 hours before or after orlistat.
- Patients taking warfarin should be monitored closely and warfarin dose adjusted accordingly
- Patients taking levothyroxine should be monitored for changes in thyroid function
- Efficacy of anticonvulsant may be reduced

Lorcaserin

- Serotonin syndrome or neuroleptic malignant syndrome (NMS)-like reactions are theoretically possible
- Extreme caution is advised if lorcaserin is combined with serotonergic or antidopaminergic drugs
- Use with caution in patients with valvular heart disease, bradycardia, congestive heart failure, or those using drugs known to be 5-HT2B agonists
- Potential for cognitive impairment and psychiatric reactions including sedation, euphoria and suicidal thoughts
- Potential risk of hypoglycemia in patients being treated for diabetes
- As a 5-HT2C receptor agonists, use with caution in patients predisposed to priapism or using PDE-5 inhibitors
- Risk for anemia, neutropenia, hyperprolactinemia

Drug Interactions

- Theoretical risk for serotonin syndrome such as with concomitant SSRIs/SNRIs
- Moderate CYP 2D6 inhibitor

Phentermine/Topiramate

- Avoid use in glaucoma, hyperthyroidism, or within 14 days following use of a MAOI
- Not recommended in patients with unstable cardiac or cerebrovascular disease
- Potential for cognitive, mood and sleep disorders and topiramaterelated general class warning for suicidal thoughts
- Potential for metabolic acidosis and elevated creatinine
- Potential risk of hypotension, CNS depression, hypokalemia, kidney stones, withdrawal seizures, and hypoglycemia in patients being treated for diabetes

Drug Interactions

- MAOI – phentermine is contraindicated during or within 14-days following administration of a MAOI
- Oral contraceptives – a reduction in contraceptive efficacy is not anticipated but irregular bleeding (spotting) may be more frequent
- Antiepileptic drugs – use with caution

TABLE 12 Post Surg Schedule for Clin / Biochem Monitoring

	Pre-operative	1 month	3 months	6 months	12 months	18 months	24 months	Annually
Complete blood count	X	X	X	X	X	X	X	X
LFTs	X	X	X	X	X	X	X	X
Glucose	X	X	X	X	X	X	X	X
Creatinine	X	X	X	X	X	X	X	X
Electrolytes	X	X	X	X	X	X	X	X
Iron/ferritin	X			Xa	Xa	Xa	Xa	Xa
Vitamin B12	X			Xa	Xa	Xa	Xa	Xa
Folate	X			Xa	Xa	Xa	Xa	Xa
Calcium	X			Xa	Xa	Xa	X	Xa
Intact PTH	X			Xa	Xa	Xa	Xa	Xa
25-D	X			Xa	Xa	Xa	Xa	Xa
Albumin/ prealbumin	X			Xa	Xa	Xa	Xa	Xa
Vitamin A	X						Op-tional	Op-tional
Zinc	X			Op-tional	Op-tional		Op-tional	Op-tional
Bone mineral density and body composition	X				Xa		Xa	Xa
Vitamin B1			Op-tional	Op-tional	Op-tional	Op-tional	Op-tional	Op-tional

X= indicate the suggested schedule for laboratory monitoring after bariatric surgery.; Xa = Examinations should only be performed after Roux-en-Y gastric bypass, biliopancreatic diversion, biliopancreatic diversion with duodenal switch. All of them are considered as suggested for patients submitted to restrictive surgery where frank deficiencies are less common. (Heber et al. J Clin Endocrinol Metab, 2010, 95(11):4823–43)