



Metabolic and  
Bariatric Program  
Resource for  
Healthcare Providers

 **ValleyHealth**  
Metabolic & Bariatric Program

[valleyhealthlink.com/bariatrics](http://valleyhealthlink.com/bariatrics)  
540-536-0010

 **ValleyHealth**  
Metabolic & Bariatric Program

## Criteria for Surgery

1. Must be at least 18 years of age.
2. Must have a Body Mass Index (BMI) of 40 or greater, or be at least 100 pounds overweight.
3. Patients who have a BMI of 35–39.9 who have two obesity related comorbidities.
4. Adults with a BMI of 30.0–34.9 with uncontrolled Type 2 Diabetes despite the use of medication.
5. Must weigh less than 400 pounds on the day of surgery.
6. Must understand the risks of surgery and be dedicated to the postoperative lifestyle changes required for safe and successful weight loss.
7. Must complete all preoperative educational programs developed by the Valley Health Health Metabolic & Bariatric Program.
8. Women who undergo metabolic & bariatric surgery must understand the importance of avoiding pregnancy for at least 12 months after the surgery.
9. Must STOP all nicotine use at least 8 weeks preoperatively and avoid nicotine use postoperatively
10. Must be free of any active substance abuse.
11. Patients who have a history of psychiatric illness must have support and paperwork by their mental health provider that their illness is well controlled.

## Considerations for Providers Providing Post-Operative Care

Abdominal pain in patients can be vague and misleading. Symptoms should be managed in conjunction with a metabolic & bariatric provider:

- fever
- tachycardia
- shoulder pain
- recurrent cramping in upper abdomen
- disproportionate abdominal tenderness or pain
- shortness of breath (symptom of pulmonary embolism)
- vomiting/dry heaves
- bloating with hiccups
- pain out of proportion to exam
- inability to tolerate liquids for 24 hours

\* No NG Tubes, No NSAID use, No Glucose tolerance testing

Complaints of abdominal pain may indicate internal hernia or a small bowel obstruction that may require urgent operative intervention.

## Warning Signs and Complications

### Immediate

Nausea/Vomiting – dehydration/electrolyte imbalance, trouble swallowing or dysphagia.  
Diarrhea – rule out Clostridium difficile; cut out artificial sweeteners.

### Early (2 months to 6 months)

Ulcers related to smoking, EtOH abuse, NSAID use  
Stenosis, trouble swallowing or dysphagia worsening reflux symptoms  
Cholecystitis/lithiasis  
Kidney Stones

### Late (12 months and beyond)

Weight regain, disordered eating, the need for more activity, and the need for strict adherence to eating suggestions such as separating eating and drinking liquids by at least 30 minutes, not skipping meals, eating solid foods for satiety. Monthly support groups are available (information about this can be found at valleyhealthlink.com/bariatrics).

Some individuals are at an increased risk for developing new-onset alcohol use disorders or relapsing into an alcohol use disorder after surgery.



## Medication Considerations for Patients Who Have Had Metabolic & Bariatric Surgery

- Extended release and controlled release medications may not be properly absorbed, and it is advised that patients be switched to a regular release formulation.
- NSAIDS (including aspirin and COX-2 inhibitors) should be used only for short periods when medically necessary. There is an increased risk of gastrointestinal ulcers in metabolic and bariatric surgery patients who use NSAIDS on a routine basis. Low dose aspirin therapy for cardiovascular disease management is OK.
- Bisphosphonates should not be used due to increased risk of gastric ulcerations.
- Calcium citrate is the preferred calcium replacement, as other calcium preparations may not be adequately absorbed.
- Potassium supplementation, if required, should be given in liquid form or crushed.
- Pill size should be considered, as large pills may get stuck in the stomach pouch and cause ulceration.
- Psychiatric medications may require dosage adjustments due to alterations in absorption.
- Anticoagulant medications: absorption is variable and all medications need to be monitored very carefully. Coumadin absorption is unreliable and dosing will change as weight decreases. Patients are asked to follow up with prescribing physicians as soon as possible after surgery.

## Metabolic Considerations

- Patients are at risk for several vitamin and micronutrient deficiencies (B12, folate, iron, vitamin D and calcium).
- Patients must be on a multivitamin, iron and calcium supplements (at least 1000 mg/day of calcium citrate) for the remainder of their lives.
- Duodenal switch patients are at a higher risk for malabsorption of fat soluble vitamins (Vitamins A,D,E, and K.)
- Iron deficiency anemia is more common, particularly in menstruating women.
- Patients can usually be treated with oral iron supplementation, but occasionally require iron infusions.
- Chelated iron preparations (iron fumarate or iron gluconate) are better absorbed than non-chelated preparations (iron sulfate).
- Iron absorption will be enhanced if it is taken with 500mg of vitamin C
- Secondary hyperparathyroidism may develop because of poor calcium intake or vitamin D deficiency.
- If significant weight gain occurs after surgery, the patient should be referred for reevaluation to a metabolic & bariatric program.

## Pregnancy

- Women are advised to wait at least 12 months post-operative before attempting conception.
- Birth control pills may not provide adequate contraception. Barrier methods are recommended.
- Should a woman become pregnant, it is important that she follow up immediately with our office, as there is a specific protocol she should follow.

## Long-term Follow-up

- Regular laboratory assessment for metabolic & bariatric surgical patients is important to insure patients are not developing any biochemical or nutritional deficiencies during their first year after surgery.  
*\*\* See recommended laboratory studies*
- After the first year, annual monitoring is strongly recommended. Vitamin and mineral therapy need to be individually tailored based upon laboratory monitoring.
- Patients should visit with a metabolic & bariatric program annually for a review that should include labs, physical examination, and the latest information regarding their continuing care.

## Recommended Basic Laboratory Studies and Intervals

Study*	3 Months	6 Months	12 Months	Annually for life
CBC	•	•	•	•
Chem-8	•	•	•	•
Magnesium	•		•	•
Phosphate	•		•	•
Lipid Panel	•		•	•
Vitamin B12		•	•	•
Hepatic Panel	•	•	•	•
Prealbumin	•			
HgA1c (diabetics)	•	•	•	•
Folate	•	•	•	•
Ferritin	•	•	•	•
Parathyroid (PTH) level			•	•
Serum Vitamin D			•	•
Copper			•	•
Zinc			•	•
Vitamin A,D,E,K (DS Patients only)		•	•	•

\*Additional studies may be warranted if clinically indicated

## Patient Referral

All patients interested in pursuing options with the Valley Health Metabolic & Bariatric Program should complete a free patient information session either in-person or online. This is the first step in the process.

- **Surgical information sessions** are held the third Thursday of the month at the Winchester Medical Center Conference Center, located at 1840 Amherst Street, Winchester, VA.
- **Medical information sessions** are held the first Wednesday of the month at the Winchester Medical Center Conference Center, located at 1840 Amherst Street, Winchester, VA.

Patients may register for information sessions online at valleyhealthlink.com/bariatrics, or by calling the office at 540-536-0010.