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Maryland Bariatric & Laparoscopic Surgeons Dr Andrew Averbach & Dr Isam Hamdallah

700 Geipe Road, Suite 274 Catonsville, MD,21228 Tel 667 234 8725 Fax 667 234 8726

Informed Consent for Laparoscopic Vertical Sleeve Gastrectomy

| Patient name ⁱ | | | |
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Please read this form carefully and ask about anything you may not understand.

I consent to have laparoscopic **Vertical Sleeve Gastrectomy** for the purpose of weight loss. I met my attending surgeon in the office during my initial consultation. My attending surgeon will perform the procedure, direct my care during the operation, and may be assisted by other physicians, fellows and/or residents under his or her supervision.

As has been explained to me, obesity is associated with early death and significant medical problems such as hypertension, diabetes, obstructive sleep apnea, high cholesterol, infertility, cancer, gastroesophageal reflux, arthritis, chronic headaches, gout, venous stasis disease, liver disease and heart failure, among other problems.

My attending surgeon has explained to me that laparoscopic Vertical Sleeve Gastrectomy can improve or cause remission of many medical problems such as hypertension, diabetes, obstructive sleep apnea, high cholesterol, infertility, cancer, gastroesophageal reflux, arthritis, chronic headaches, venous stasis disease, liver disease and heart failure. I understand there are no specific guarantees that any one of these conditions will improve or resolve in any given patient as a result of the surgical procedure.

My attending surgeon has discussed with me the alternatives to laparoscopic Vertical Sleeve Gastrectomy, which include non-surgical options. The opportunity to discuss other surgical options such as implantation of a laparoscopic Adjustable Gastric Band has been made available to me. I have advised my surgeon that I have attempted non-surgical weight loss programs without success.

I understand the anatomy of the laparoscopic Vertical Sleeve Gastrectomy and have been shown illustrations of the procedure.

I have been given the opportunity to discuss alternative methods for weight loss. This includes diet and exercise as well as other surgical methods. I believe that the laparoscopic Vertical Sleeve Gastrectomy offers the best balance between risks and benefits for me.

I understand the incidence of complications may be dependent on my particular medical history as well as my surgeon's level of training and experience. I have discussed these issues specifically with my surgeon.

I understand that the risks of the laparoscopic Vertical Sleeve Gastrectomy include, but are not limited to the following:

Intra-operative and/or Immediate Post-operative Risks:

Death: The mortality rate of the laparoscopic Vertical Sleeve Gastrectomy nationwide ranges from 0.1% to 2%.

Significant Bleeding: Bleeding may occur unexpectedly in the operating room. Bleeding may also occur post-operatively in the days after the operation. This bleeding may be through the intestinal tract and result in the passage of blood in the

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stool. Bleeding may also be unseen inside the abdomen and be diagnosed through other means. A transfusion may be necessary in some circumstances. Re-operation to stop bleeding may be necessary.

Staple Line Leak: A significant portion of the stomach will be removed permanently during this procedure. A special surgical stapler device is used to seal and cut this portion of stomach. Leaks at the staple line (where the seal is not water tight) can result in serious complications, including, but not limited to a prolonged hospital stay, a long period of nothing to eat, prolonged antibiotic requirements, organ failure and death. The incidence of staple line leak may range from 0.25% to 3%.

Renal Failure: Transient kidney (renal) failure occurs rarely. Irreversible kidney failure has been reported in rare cases.

Prolonged Ventilation: A prolonged stay on a ventilator (breathing machine) in the intensive care unit may occur if a patient has severe sleep apnea or after certain significant complications. A temporary tracheostomy may be necessary.

Heart Attack: Although a heart attack is possible after a laparoscopic Vertical Sleeve Gastrectomy, it is very rare. Risk factors for heart disease include increased age, diabetes, hypertension, hypercholesterolemia and a family history of heart disease.

Prolonged Hospital Stay: Unforeseen complications may result in a prolonged hospital stay. Intensive care admission may be required.

Bowel Obstruction: An obstruction can occur that would require re-operation. An obstruction can occur from a number of causes, such as bleeding, scarring, technical problems or hernia.

Deep Vein Thrombosis (DVT)/Pulmonary Embolism: Blood clots that form in the legs, and elsewhere, and break off into the lungs may cause death. Given this risk, treatments may be initiated to decrease the risk for the formation of blood clots, including the use of heparin (a medication that thins the blood), special foot and leg stockings, walking soon after surgery and medication at home after discharge from the hospital. Completely eliminating the risks of DVT (clots) altogether is not medically possible. The risks associated with the medications used to prevent blood clots can include excessive bleeding. Any symptoms of leg swelling, chest pain or sudden shortness of breath should be immediately reported to the surgeon. Rarely, patients develop allergies to heparin, sometimes causing very severe reactions.

Other Complications that may be common: Allergic reactions, headaches, itching, medication side-effects, heartburn/reflux, bruising, gout, anesthetic complications, injury to the bowel or vessels, gas bloating, minor wound drainage, wound opening, scar formation, stroke, urinary tract infection, urinary retention, pressure sores, injury to spleen or surrounding structures, and pneumonia.

Risks Associated with an Open Procedure: If a conversion to an open procedure is required, complications include but are not limited to: wound infection, which may cause significant scarring and healing problems, prolonged wound care, and discomfort. Incisional hernias may occur in a substantial number of patients after an open procedure. Hernias will often require an operation to repair. There is a higher chance of certain complications including lung infections, pressure ulcers and blood clots after an open operation. There would also likely be more discomfort and a longer hospital stay.

Risks in the Early Postoperative Period:

Stricture: A kink, or stricture along the length of the stomach can occur that can cause a blockage of food. This is an uncommon complication. A kink or stricture may require various interventions to treat.

Fatigue: After any general anesthesia, fatigue is very common. Fatigue may last days, or in some circumstances, much longer.

Food Intolerance: Following the laparoscopic Vertical Sleeve Gastrectomy, some patients may experience intolerance to certain food types. Food intolerances usually improve with time.

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Late Complications:

Reflux and GERD: The incidents after Sleeve Gastrectomy is variable and is estimated to occur in up to 15% of patients, also it has been reported to worsen in patients with preexisting reflux, medications such as Proton pump inhibitors are usually first line of treatment, sometimes a stricture is the cause for which dilatation might be needed. If the reflux is secondary to bile gastritis or a hiatal hernia correctional surgery or conversion to a Gastric Bypass might be required.

B12 Deficiency: The incidence of B12 deficiency after laparoscopic Vertical Sleeve Gastrectomy is not well described. The part of the stomach removed after laparoscopic Vertical Sleeve Gastrectomy produces an enzyme that assists in B12 absorption, and it is likely after laparoscopic Vertical Sleeve Gastrectomy there is a decrease in B12 absorption. B12 supplementation may be recommended to prevent various complications such as anemia or even nerve damage.

Osteoporosis and Iron Deficiency: The incidence of these deficiencies after laparoscopic Vertical Sleeve Gastrectomy is not well established. Most surgeons believe the incidence should be lower than the gastric bypass because food is not rerouted through the intestine.

B Vitamin Deficiencies: Deficiencies in Thiamine, Niacin, and others have been reported. These B vitamin deficiencies are very rare. Some B vitamin deficiencies can cause irreversible neurological damage. All patients are required to take a multivitamin supplement for life after this operation. Sometimes, additional B vitamin supplements are also required. It is important to be evaluated regularly for vitamin deficiencies after surgery. Severe vomiting is a risk factor for the development of B vitamin deficiencies.

Bowel Habits: Changes in bowel habits are common. The most common complaint after surgery is constipation.

Pregnancy: I understand the pregnancy should be deferred for 12 months after laparoscopic Vertical Sleeve Gastrectomy because of concern for fetal and maternal health. I also understand that fertility may be substantially increased very early after surgery due to my weight loss. I understand that I am responsible for using appropriate birth control methods in this time period. Studies appear to show a decreased rate of complications of pregnancy in those patients who have had weight loss surgery. There may be rare instances where complications of pregnancy may be increased secondary to having laparoscopic Vertical Sleeve Gastrectomy.

Gallbladder Problems: Significant weight loss promotes the formation of gallstones. There is an increased risk in the future of requiring removal of the gallbladder due to gallstones.

Weight Regain: Modest weight regain years after surgery is typical. Significant weight regain may occur more rarely. The causes of weight regain are complex.

Excessive Weight Loss: Excessive weight loss is uncommon and usually results from complications that require close management by the surgeon.

Psychiatric Complications: Although most people experience improvements in their mood, some will have worsening states of depression which could lead to suicide. There may be a higher incidence of marital problems after weight loss surgery. Patients taking psychiatric medications should have the dosage and effectiveness of these medications monitored carefully by their prescribing physician.

Temporary Hair Loss: Hair loss occurs in many people after a weight loss operation. Hair generally grows back. There are no proven supplements to alter hair loss.

Other Complications: There may be other extremely rare and significant complications that may occur which are not well described to date.

Unlisted complications: I understand that it is impossible to list every complication possible during and after this procedure.

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Possible Additional Procedures:

During the laparoscopic Vertical Sleeve Gastrectomy procedure, several conditions may arise that may cause additional procedures to be performed. These include:

A liver biopsy: Many patients will have a liver biopsy performed. Bariatric patients often have some degree of liver disease. A biopsy helps determine the severity of liver disease (if present at all) and helps with post-operative management. The risks with performing a liver biopsy include a low chance of bleeding.

Removal of the gallbladder: In some patients, removal of the gallbladder may be medically necessary. Removal of the gallbladder increases the length of time of the total operation. There is a small risk of bile duct injury that can result in serious complications. Removal of the gallbladder may increase the hospital stay and increase post-operative pain. An additional port (and incision) may be necessary to perform the procedure safely.

Incisional Hernia repair: A hernia may have to be repaired at the time of the operation.

Esophagogastroduodenoscopy: An EGD, or upper endoscopy, is sometimes performed during the laparoscopic Vertical Sleeve Gastrectomy operation.

Hiatal Hernia repair: If a hiatal hernia is present, this may require repair during the surgery. The associated risks with a hiatal hernia repair include, but are not limited to injury to the esophagus, dysphasia (difficulty swallowing) and hernia recurrence.

Lysis of Adhesions: In the setting of a previous operation or significant abdominal infection, scarring always results. The degree of scar tissue is unpredictable. Sometimes, depending on the location of the scar tissue, the scar tissue must be cut (called "lysis of adhesions") in order to perform the weight loss operation. There are increased risks when a lysis of adhesions is necessary, including injury to the intestines, prolonged operative times and bleeding.

Placement of a Drain: In certain circumstances, the surgeon may elect to place a temporary plastic drain. A drain is a thin plastic tube that comes out of the body into a small container to allow for the removal of fluid and the control of infection.

<u>Risks/Possible Complications.</u> The doctor has explained to me that there are risks and possible undesirable consequences associated with a Laparoscopic sleeve gastrectomy including, **but not limited to**:

- 1 Abscess
- 2 Adult Respiratory Distress Syndrome (ARDS)
- 3 Allergic reactions
- 4 Anesthetic complications
- 5 Atelectasis
- Bleeding, blood transfusion, and associated risks
 Blood clots, including pulmonary embolus (blood clots migrating to the heart and lungs) and deep vein thrombosis (blood clots in the legs and/or arms)
- 7 Bile leak
- 8 Bowel obstruction
- 9 Cardiac rhythm disturbances
 Complications in subsequent pregnancy (no pregnancy should occur within the 18 months after surgery)
- 10 Congestive heart failure
- 11 Dehiscence of wound or evisceration of bowels
- 12 Depression
- 13 Dumping syndrome
- 14 Death.

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- 15 Encephalopathy
- 16 Esophageal, pouch or small bowel motility disorders
- 17 Gout
- 18 Hernias, incisional (including the port sites for laparoscopic access) and internal
- 19 Inadequate or excessive weight loss
- Infections at the surgical site, either superficial or deep including port sites for laparoscopic access. These could lead to wound breakdowns and hernia formation.
- 21 Injury to the bowels, blood vessels, bile duct, and other organs
- 22 Injury to adjacent structures, including the spleen, liver, diaphragm, pancreas and colon
- 23 Intestinal leak
- 24 Kidney failure
- 25 Kidney stones
- 26 Loss of bodily function (including from stroke, heart attack, or limb loss)
- 27 Myocardial infarction (heart attack)
- 28 Narrowing of the connection between the stomach and small bowel or strictures
- 29 Need for and side effects of drugs
- 30 Organ failure
- Perforations (leaks) of the stomach or intestine causing peritonitis, subphrenic abscess or enteroenteric or enterocutaneous fistulas
- 32 Pleural effusions (fluid around the lungs)
- 33 Pneumonia
- 34 Possible removal of the spleen
- 35 **Pressure sores**
- 36 Pulmonary edema (fluid in the lungs)
- 37 Serious intra-abdominal infection such as sepsis or peritonitis
- 38 Skin breakdown
- 39 Small bowel obstructions
- 40 Staple line disruption
- 41 Stoma stenosis
- 42 Stroke
- 43 Systemic Inflammatory Response Syndrome (SIRS)
- 44 Ulcer formation (marginal ulcer or in the distal stomach)
- 45 Urinary tract infections
- 46 Wound infection

a. Nutritional complications include but are not limited to:

- 1 Protein malnutrition
- 2 Vitamin deficiencies, including B12, B1, B6, folate and fat soluble vitamins A,D,E,K
- 3 Mineral deficiencies, including calcium, magnesium, iron, zinc, copper, and other
- 4 Uncorrected deficiencies can lead to anemia, neuro-psychiatric disorders and nerve damage, that is, neuropathy

b. Psychiatric complications include but are not limited to:

- 1 Depression
- 2 Bulimia
- 3 Anorexia
- 4 Dysfunctional social problem
- 5 Alcohol dependency and recidivism

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c. Other complications include but are not limited to:

- 1 Adverse outcomes might be precipitated by smoking
- 2 Constipation
- 3 Diarrhea
- 4 Bloating
- 5 Cramping
- 6 **Development of gallstones**
- 7 Intolerance of refined or simple sugars, dumping with nausea, sweating and weakness
- 8 Low blood sugar, especially with improper eating habits
- 9 Vomiting, inability to eat certain foods, especially with improper eating habits or poor dentition
- 10 Loose skin
- 11 Intertriginous dermatitis due to loose skin
- 12 Malodorous gas, especially with improper food habits
- 13 Hair loss (alopecia)
- 14 Anemia
- 15 Bone disease
- 16 Stretching of the pouch or stoma
- 17 Low blood pressure
- 18 Cold intolerance
- 19 Fatty liver disease or non-alcoholic liver disease (NALF)
- 20 Progression of pre-existing NALF or cirrhosis
- 21 Vitamin deficiencies some of which may already exist before surgery
- 22 Diminished alcohol tolerance

d. Pregnancy complications were explained as follows:

- 1 Pregnancy should be deferred for 12 to 18 months after surgery or until the weight loss is stabilized
- 2 Vitamin supplementation during the pregnancy should be continued
- 3 Extra folic acid should be taken for planned pregnancies
- 4 Obese mothers have children with a higher incidence of neural tube defects and congenital heart defects
- 5 Pregnancy should be discussed with an obstetrician
- 6 Special nutritional needs may be indicated or necessary
- 7 Secure forms of birth control should be used in the first year after surgery
- 8 Fertility may improve with weight loss

Further, any of these risks or complications may require further surgical intervention during or after the procedure, which I expressly authorize.

I also understand that some or all of the complications listed on this form and also explained to me may exist whether the surgery is performed or not, in that Bariatric surgery is not the only cause of these complications.

I have had the opportunity to read these materials, speak with my attending surgeon, and ask any questions. I understand that unforeseen events may occur that could result in the last minute cancellation or postponement of my surgery. I have reviewed all of the information in this consent form and related consent materials with my

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| and accept such risks. I have read, or had re- | y closest family members that I fully understand the risks of ad to me, the contents of this consent form and related co ish to proceed with laparoscopic Vertical Sleeve Gastrecto | nsent |
| Printed Name | Date and Time | |
| Patient's Signature | Surgeon's Signature | |
| Witness to signature only | Date and Time | |
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