What new patients need to know about weight reduction surgery at the University of Virginia.
Normal anatomy of abdomen

- Food normally goes from your stomach into the small intestine, then into the large intestine.
Laparoscopic surgery

- Surgeons use air to inflate your belly so they can see the stomach and intestines.
- Special staplers make the connections internally.
- 98% of gastric bypass surgeries are performed with this technique.
Laparoscopic surgery

- Multiple small incisions are made to place a telescope, and small instruments into your abdomen to perform the same operation that surgeons can do through a large incision.
Roux-en-Y Gastric Bypass

- “Best” weight reduction surgery according to NIH.
- Surgeons create a pouch from the upper part of the stomach.
- It becomes a Reservoir for food.
Roux-en-Y Gastric Bypass

- A special stapler is used to close off the top part of the stomach to create a pouch.
Roux-en-Y Gastric Bypass

- The small intestine is connected to the pouch.
Roux-en-Y Gastric Bypass

- Create the “Y” in Roux-en-Y
- Your surgeon connects the 2 parts of the intestine together.
RESTRICTION

- You will have a **pouch** instead of a stomach!
- It will be the size of an egg.
- It will hold about a \(\frac{1}{2}\) cup of food.
- The pouch restricts the amount of food you can eat.
In your present, pre-operative state there are many areas for nutrients to be absorbed.
MALABSORPTION

- The Roux-en-Y Gastric Bypass produces a state of malabsorption.
- Your intestines will not be able to absorb as many vitamins and nutrients.
MALABSORPTION

- You will need to get enough protein (50–60 gms per day)
- You will need to take **Multivitamins** for the rest of your life!
- This will start from DAY ONE!
- Get in the habit now.
Protein and Vitamin deficiencies

- If you don’t get enough protein, you will lose hair.
- You might get osteoporosis from low Calcium.
- You might not get enough Iron and B vitamins from your diet, causing anemia and deficiencies of $B_{12}$ & folate.
Laparoscopic Adjustable Band Surgery

- This type of surgery is performed with the laparoscope.
- This surgery restricts consumption but does not cause malabsorption.
- You MUST commit to a strict diet for the rest of your life!
Normal anatomy

- The band goes around the top of the stomach.
- The intestines are not operated on.
How is it adjustable?

- A port is placed under the skin during the operation.
- Saline can be added or withdrawn from the Band depending on speed of weight loss and symptoms.
Advantages of the Lap Band

- Less invasive, shorter surgery, and shorter hospital stay.
- After 3 years weight loss is about the same as Roux-en-Y in some studies.
- Over 150,000 surgeries have been performed in Europe and Australia.
- Fewer complications
Disadvantages of the Lap Band

- Many insurance companies do not cover this procedure yet.
- If patients do not follow the diet, weight loss can be sabotaged!
- Ulcers, slippage of band, port complications can be problems.
Complications of Roux-en-Y Gastric Bypass Surgery

- **Pulmonary embolism** from a DVT or Deep Venous Thrombosis
- PE can cause sudden death, usually in first week post-op.
- PE is difficult to recognize and treat.
Prevention of Complications of Roux-en-Y Gastric Bypass Surgery

- How to prevent a **pulmonary embolus**:
  - Your doctor will prescribe a “**blood thinner**”
  - You will **walk** immediately after surgery and as often as possible. This is your responsibility!
Prevention of Complications of Roux-en-Y Gastric Bypass Surgery

- You will wear **booties**, that cause you to flex and extend your foot while you are in bed.
Prevention of Complications of Roux-en-Y Gastric Bypass Surgery

- Sequence of events following your surgery:
  - You will go to the PACU for recovery from anesthesia.
  - You will go to 5 Central or 5 West where surgery patients go after their operations.

- You will walk!
# Planning ahead

## Post-op days

<table>
<thead>
<tr>
<th>Day of surgery</th>
<th>One</th>
<th>Two</th>
<th>Three</th>
<th>Four</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-ray</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stage 2</td>
<td></td>
<td></td>
<td>Home</td>
<td></td>
</tr>
</tbody>
</table>

## Pain scale

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>No pain</td>
<td>moderate pain</td>
<td>really bad!</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Complications of Roux-en-Y Gastric Bypass Surgery

LEAKS

- Leaks can occur from any anastomosis or connection from your stomach to your intestines.
- Leaks can cause food and saliva and bacteria to enter your abdominal cavity.
- This can make you very ill.
Prevention of Complications of Roux-en-Y Gastric Bypass Surgery

- **Prevention of leaks:**
  - During your operation, your surgeon will test the anastomosis with bright blue dye.
  - The anesthesiologist will put a tube in your nose which goes down into your pouch.
  - Dye can splash and temporarily stain your face and hair.
Prevention of Complications of Roux-en-Y Gastric Bypass Surgery

- Prevention of leaks
  - On the first Post-operative Day, you will go to the Radiology Department for an X-ray of your pouch to be sure there are NO leaks.
  - You will start on clear liquid diet.
  - If you overeat, you can cause the sutures to burst internally and cause a leak. This can be VERY serious! Leaks are most likely to occur during the first six weeks.
Complications of any surgery

- **BLEEDING** can occur from any incision, inside your abdomen and out.
- “Blood thinners” make bleeding worse.
- We will monitor your blood pressure and your blood count.
- You will be given blood, only if absolutely necessary.
Complications of Roux-en-Y and the Lap Band

OBSTRUCTION

- Obstruction can be caused by swelling of the pouch due to surgery.
- We will check with an X-ray if you have problems keeping clear liquids and soft food down.
- An obstruction may require more surgery or a special procedure.
Complications of Surgery

HERNIA

- An “open” incision can cause your abdominal wall to be weak. Loops of intestine can become lodged in weak areas causing pain and bowel obstruction. This can be very serious.

- Wearing a binder can help.
Preventing Complications of Surgery

**PNEUMONIA**

- Prevention: Let your doctor know if you have any kind of infection before surgery. Even sinus infections can lead to pneumonia during your recovery from surgery.
- Your nurses will give you an Incentive Spirometer to use to expand your lungs.
Complications of Roux-en-Y Gastric Bypass Surgery

- DEATH

While it is not something any of us want to think about or make plans about, some surgery patients die.

Please talk with your loved ones and make a living will, plan your estate, or make a will. Let your spouse know about your thoughts on resuscitation and organ donation.
GALLBLADDER SURGERY

- If you have stones in your gallbladder, your surgeon will remove your gallbladder during surgery.

- If you don’t have gallstones, you will have to take Actigall orally for the first 6 months after surgery.
Planning ahead

- Support system
- You need people around you who will support your decision and encourage you when you have days that are difficult!
Planning ahead

- Mothers who have this surgery need to prepare the family early for the changes to come in everyone’s diet.

- Clean out your pantry and get rid of high calorie food.
Planning ahead

- Get a blender
- Stock pantry with food for the first week at home, in case you don’t feel like shopping. Melissa will go over food choices.
Planning ahead

- Equipment at home
- Look around your house now and think about how it will be to maneuver after surgery – check your bathroom, stairs, bed.
- Consider a recliner and a raised toilet seat!
The RULES

- Check with the nurses about “rooming in”
- You may be in a large bed and you may have a roommate who also has family visiting or special health needs.
- *Hospitality House* or local hotels can accommodate your family.
The RULES

- Check out time is at 11:00 a.m.
- Please bring money for your discharge prescriptions:
  - Stool softener
  - Pain medication
  - Vitamins
- Stock up on your regular meds, you will need to stay on these, at least for the first month.
- Visitors should wear a Visitor Badge sticker.
Planning ahead

- In advance, decide who will pick you up and take you home.
- Make sure you can get in and out of the vehicle.
- Have an *Alternate plan* in case you are not discharged on the day you have planned!
Planning ahead

- Coughing after surgery can be very uncomfortable.
- Smoking places you at a much higher risk for complications.
- Stop smoking now, please!
Planning ahead

- The purpose of this surgery is to restore a regular life for you and your family.
- And return to work in a reasonable time after surgery.
- Please continue walking at home to prevent blood clots.
- Resume your usual activities as soon as possible.
Planning ahead

- In having this surgery you are making a commitment to returning here for your appointments for the rest of your life!
- If you live far away, please consider this ahead of time!
- Please plan ahead for this!
- Come to the support group – Lighter Life.
Lighter Life

- Support Group meets once a month on 2nd Thursday evening at 6PM
- It is a time to share and see how others are dealing with the changes after surgery
- Plan to come!
Exercise

- When you have recovered from surgery, you will need to start a regular program of exercise to help tone your body and lose weight.
- This helps prevent Plastic Surgery later.
- Walking, swimming, exercise program
- Move to music; chair exercises, etc.
Family planning!

- It is important for women of child-bearing age to avoid getting pregnant for at least 18 months after surgery! Use birth control, please.
- Some women who thought they were not fertile became pregnant after surgery.
- If you become pregnant, please let your doctor know as soon as possible.
Please be patient.

Sequence of events:

- Your appointment time may be delayed. You will see your doctor but he is very busy! A medical student may talk with you and take a history and perform a physical exam. You may go to the cafeteria if there is time before your appointment.
- Nutrition consultation after you see your doctor. Lab work.
- Insurance approval. This takes about 2 **months** to get all paperwork complete. You may have to wait until people ahead of you are scheduled.
- Tests: EGD, US, Colonoscopy, ABGs
- Consultations: Cardiology, Pulmonary, Endocrine, Plastic Surgery
- Psychological evaluation - Please schedule your appointment!
If you have Diabetes, High Blood Pressure or other chronic health problems that your family doctor treats you for, please see her or him regularly to make necessary changes in your medications. Usually weight reduction means you need less of your usual medications.

Some patients have foul gas.
Contact information

- 800 - 251-3627 toll free
- Secretary: Mary Cummings 434-924-2104
  - Diana Browning 434-243-4811
  - B. Pusey 434-924-9954
- Nurse: Anna Miller, RN 434-924-5852
- P.A.: Janet Dix, P.A.-C. 434-962-0472
- Nutritionist: Melissa Edwards, RD 434-982-3293
EXPECTATIONS

- Calculate potential weight loss
- 50% to 66% of **excess** weight above your ideal body weight is the amount of predicted weight loss.

Purpose of weight loss:
- Improve your health
- Decrease amount of medication you take
- Perform daily physical activity
- Get off Disability
- Have more energy
Potential for weight loss

Present weight – IBW (ideal body wt)
= Excess weight $\times$ 50%
= Amount of potential weight loss

EXAMPLE:

350 today’s wt
-120 (IBW)
230 $\times$ 50% = - 115 potential wt.loss
= 245 new weight
Expected weight loss

amount of weight loss

3 wks 3 mo 6 mo 9 mo 12 mo 15 mo 18 mo 24 mo
Successful weight loss

- People who lose the most weight and keep it off:
  - Change lifestyle
  - Change eating habits
  - Are physically active
  - Exercise daily
  - Follow new diet
People who are not successful!

Go back to old eating habits

- Avoid exercise
- Can regain all weight by
  - Not following guidelines
  - Eating high fat diet
  - High caloric intake
  - Grazing, snacking
  - Drinking “regular” soft drinks or high calorie beverages (ex. Juice, alcohol)
How do you keep the weight off?
Make a lifestyle change for the rest of your life.
Become physically active.
Change your eating habits and make healthier food choices.
Set goals at each post-op visit.
Remember-
YOU DETERMINE YOUR SUCCESS
Children’s chewable vitamins twice a day

- Example: *Flintstones “Complete”*
- Adult multivitamin once a day
  - Example: *One-A-Day*
  - Example: *Centrum Chewable*
  - All vitamins must have at least 100% of Iron and Zinc RDA (avoid *Centrum Silver*)

- Women who still have menstrual periods need iron. All women need calcium!
- Common deficiencies: Iron, Folate, $B_{12}$, Calcium, Vitamin D
Stage I Diet

- While you are in the hospital you will have clear liquids for 24 hours including:
  - Broth
  - Juices
  - Sugar free Jello
  - Water, Ice

Then you will advance to Stage II, if you have no problems.
Stage II Diet

You will start on Stage II while you are in the hospital and continue for 2 to 3 weeks at home.

- All foods have a pureed, mashed potato consistency. All food will be blenderized.
- Diet outline is in your Bariatric Surgery Packet.
- It takes 6 to 8 weeks for the pouch to heal.
- Avoid hot tasting spicy foods, like hot sauce, Cajun peppers, etc.
High Protein Foods

- Fat free, Skim or 1% milk
- Non-fat dry milk powder (add to everything!)
- **Cheese, cottage cheese, yogurt** (light, low fat, fat free)
- Fat-free Refried beans
- Pureed beans (pinto, black, navy, lima, kidney, northern, butter, lentils)
- Pureed meats (chicken, turkey, tuna, fish, lean beef, pork, eggs)
Protein

- “No Sugar Added” Carnation Instant Breakfast
- Add milk to oatmeal, *Cream of Wheat*, or creamed soups.
- You do not need expensive powdered protein mixes!
- Goal: 50 grams for women and 60 grams for men \textit{TOTAL every day}!
Lack of Protein

- Hair loss
- Poor wound healing
- No energy
- Loss of lean muscle mass
Serving size

- No more than ½ cup at each meal!
- Eat 4 to 6 meals/day for the first month, then 3 meals/day.
- Stop eating when you feel full!
- Eat slowly & chew your food well
- No liquids with your meals.
- Keep a Food Diary
Dumping syndrome may occur when concentrated sweets & high fats foods enter your intestine from your pouch.

Generally people feel awful when this occurs: sweaty, nauseated, cramping, diarrhea

Sometimes a problem with Chinese food, fried foods, spicy foods. Frequent problem with desserts, sodas, candy and other high sugar foods.
Foods to avoid

- High sugar foods and beverages.
- Fried Foods
- Raw vegetables and skins on fruit for 3 months.
- Peanut butter.
- Red meat for 3 months.
- Carbonated and caffeine beverages
Sugar

- Avoid if the first 3 ingredients on food labels state:
  sugar, maple syrup, honey, corn syrup, corn sweeteners, glucose, maltose, molasses, dextrose, fructose, sorghum, sorbitol, mannitol.
Sugar substitutes

- Splenda
- Sweet and Low
- Equal
- Stevia

- Find other things that comfort you - candles, warm bath, exercise!
- If you must have a “treat”, limit it to once a month.
Fluids

- Drink at least 48 to 64 oz = 6 to 8 cups each day of non-caloric liquids between meals.
- Stop fluids 30 minutes before and resume 30 to 45 minutes after meals.
- Drink only caffeine free, non-carbonated beverages.
- Drinking with meals may cause DUMPING syndrome.
Why avoid carbonated drinks?

- Belly ache!
- May stretch your pouch.
- Empty calories – you fill up quickly and may not be hungry for protein and nourishing food.
Why avoid caffeine?

- Leads to constipation
- May cause dehydration
- It is an appetite stimulant
Types of low calorie fluids

- Water
- Crystal Light
- Flavored water
- Sugar free Tang
- Decaf Tea or Coffee
- Diet Snapple
- Sugar free Kool-Aid
- Diet sodas (flat)
Oral hygiene

- You may need to brush your tongue during Stage II.
- Regular foods help remove debris from the tongue.
- Soft diet allows debris to build up causing bad breath!
Expand your horizons

- Tastes can change after weight reduction surgery
- Try new foods
- Don’t use the excuse “I don’t like that” anymore until you try it!
Portion control

- 1/2 cup serving size for the whole meal!
- Find small dishes, spoons, and bowls so your plate looks full.
- GLAD Tupperware = 4 oz.
Drink water!

- Carry a water bottle with you everywhere. (20 ounce water bottle)
- If you can’t remember to drink, set a timer to remind you.
Read labels for protein, sugar and fat content.

- **Protein**: 50 to 60 grams/day
- **Sugar**: limited!
- **Fat**: 20 to 25 gms/day
Breakfast

- Yes, it is the most important meal of the day!
- If you skip breakfast, you will want to eat more later.
- Suggestions: Oatmeal with skim milk, cottage cheese, Carnation Instant Breakfast, yogurt, fruit smoothie.
Stage III Diet

- Your doctor and RD will allow you to advance to Stage III in 2 to 3 weeks after surgery when you come for your 1st follow up visit.

- Wait 2 months to eat foods like non-pureed red meat, raw vegetables, cooked fruits and vegetables with skins, and hard fruits.
GOALS

- Always eat proteins first
- Drink water
- No snacking
- Exercise
- Take your vitamins and supplements daily
Summary

- Getting insurance approval will take a while, please be patient!
- This is a life long commitment.
- Your lifestyle will change.
- Please involve your family in this decision that can have serious consequences!
- Family support is IMPORTANT!
- You are courageous for making a change.
- Remember YOU determine your success!