



**Bariatrics and Obesity
in the elderly population**

- Caring for residents who've had bariatric surgery
- Caring for residents with obesity
- Weaving Dignity and Sensitivity into your daily care of people with obesity

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 Disclosure: Employed by UW Health
 Metabolic & Bariatric Surgical Weight
 Loss Program.

Obesity

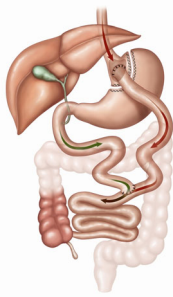
- During the past 30 years, there has been a dramatic increase in obesity in the U.S.
- More than 1/3 of U.S. adults are obese

Center for Disease Control and Prevention

**What's out there ?
past and current bariatric surgeries**

- Gastric Bypass (RNY)
- Vertical Sleeve Gastrectomy (Sleeve)
- Lap-Band
- VBG (vertical band gastroplasty)
- Duodenal Switch

Gastric Bypass



Restrictive (small pouch size)

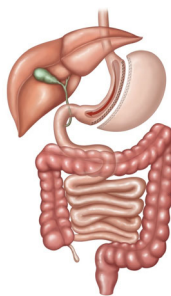
Malabsorptive
(skips part of the intestine)

Alters hunger hormones & insulin sensitivity

- little to no hunger
- much improved diabetes

The most common bariatric surgery until recently

Vertical Sleeve Gastrectomy



Restrictive (small pouch size)

**To a lesser degree:
alters hunger hormones**

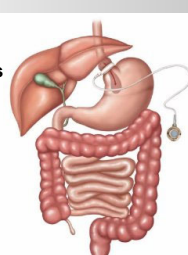
~ The most popular bariatric surgery today

Lap-Band

small pouch size, a speed bump

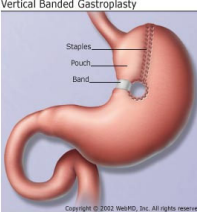
PROBLEMS

- Does not reduce hunger
- Does not insulin sensitivity
- Restriction can be quite variable
- If too tight or not following eating rules
 - Pain
 - Reflux (GERD)
 - Esophageal dysmotility and deformity
- **Band volume reduction (unfill)**
loss of restriction = **on-off switch**
- **Band can slip (up or down)**
On Upper GI (band appears horizontal)
- **Band can erode into the stomach**



VBG

Vertical Band Gastroplasty



Vertical Banded Gastroplasty

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Similar to the lap-band

Restrictive (small pouch size)
A speed bump

PROBLEMS

- Hunger unchanged
- Insulin sensitivity unchanged
- Stenosis (scarring)
 - Too tight leads to very poor nutrition
 - UGI shows very slow transit of contrast

No longer performed.
More popular 20 years ago.

Duodenal Switch

- **Restrictive** (small pouch size)
- **Malabsorptive**
skips large portion of small intestine
- **Alters hunger hormones and insulin sensitivity**
 - ✓ little to no hunger
 - ✓ much improved diabetes

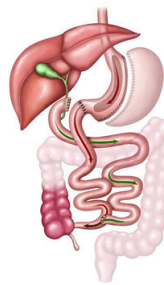
PROBLEM Poor nutrient absorption

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MALNUTRITION

Keep a closer eye on these patients

- ✓ Check nutritional labs more often
- ✓ Supplement compliance is crucial

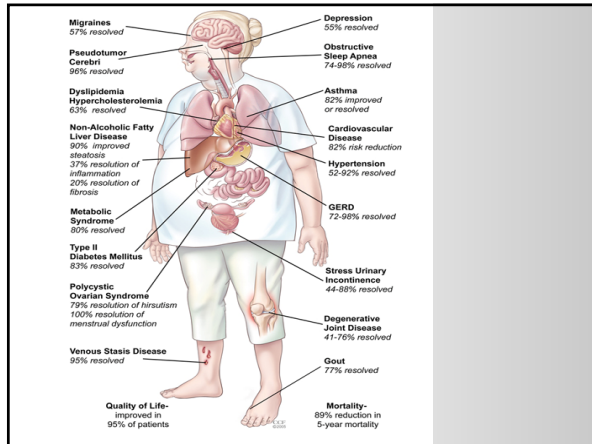


~Far less common these days

Why surgery ?

Improved Co-morbid Conditions

<ul style="list-style-type: none"> • Type 2 Diabetes • Obstructive sleep apnea • High cholesterol • Hypertension • Heart Disease • GERD (reflux/heart burn) • Gallstones • Degenerative joint disease • Fatty liver disease • Asthma • Stress incontinence • Birth defects • Miscarriages • Infertility 	<ul style="list-style-type: none"> • Cancer <ul style="list-style-type: none"> – Breast – Cervical – Endometrial – Ovarian – Colorectal – Liver – Pancreatic – Esophageal – Lung – Prostate – Kidney – Lymphoma – Multiple myeloma – Leukemia
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The end-game
is not a number

- ✓ Improved Quality of Life
- ✓ Longer Life

A “normal” BMI is not necessary to achieve profound health benefits and improved quality of life.

Eating Rules (habits)
Support & reinforce eating rules and habits

- ✓ Eat slowly (w/o distractions)
- ✓ Keep portions small
 - One bite can be all it takes to be too much
- ✓ Chew Chew Chew
 - When in doubt spit it out

WHY?

- Stomach is now:
 - much smaller
 - not stretchable
 - no longer able to chew food (if your mouth didn't)

Eating Rules (habits)

**Don't drink with meals
or immediately after eating**

WHY?

 **Cheat #1** →

- It can flush the pouch making it easier to continue eating/grazing
- It robs you of satiety (sense of fullness)
- It can be too much volume for your stomach, triggering pain and vomiting.

Best to wait 30-60 minutes

Eating Rules (habits)

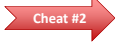
AVOID or limit:

- **Calorie dense foods** (high-cal, low-nutrient)
- **Carbonated beverages**
- **Sweets (natural sugars)**
- **Alcohol**

Eating Rules (habits)

AVOID or limit:

- **Calorie dense foods** (high-cal, low-nutrient)
- **Carbonated beverages**
- **Sweets (natural sugars)**
- **Alcohol**

 **Cheat #2** → Promotes cravings and is an easy way to get in more calories than needed, leading to weight regain.

Eating Rules (habits)

AVOID or limit:

- Calorie dense foods (high-cal, low-nutrient)
- Carbonated beverages
- Sweets (natural sugars)
- Alcohol

Bubbles can stretch the pouch. This can be painful, might aggravate GERD or (over time) enlarge the pouch.

Eating Rules (habits)

AVOID or limit:

- Calorie dense foods (high-cal, low-nutrient)
- Carbonated beverages
- Sweets (natural sugars)
- Alcohol

Too much sugar (any natural sweetener) and sometimes really fatty foods can trigger a dumping episode.

Dumping Syndrome

Symptoms (patient may experience some or all)

- Flushed feeling
- Lightheaded
- Racing heart (tachycardia)
- Sudden and profound fatigue
- Nausea (mild to profound)
- Belly discomfort
- Vomiting
- Diarrhea

Dumping Syndrome

- Dose-dependant > 5 grams of sugar
- Sx present 2-20 minutes after consuming the triggering food or drink
- Seen in ~ 50% of RNY patients
 - Unpredictable
- OTC cold, flu remedies often contain natural sweeteners and alcohol

Eating Rules (habits)

AVOID or limit:

- Calorie dense foods (high-cal, low-nutrient)
- Carbonated beverages
- Sweets (natural sugars)
- Alcohol

Alcohol

Alcohol absorbs more completely and lightning fast leading to more rapid, intense, and lasting inebriation with far less alcohol than prior to surgery.

- Weight regain
- Rapid intoxication →DWI
- Toxicity (liver)
- Transfer of addiction

Nutrition considerations
(eating rules part 2)

✓ **Water (nutrient #1)**

✓ **Macronutrients**

- Protein
- Fats (oils)
- Carbs

✓ **Micro-nutrients**

- Vitamins
- Calcium
- + other minerals
- Iron

WATER
and other fluids

Water water water
We all should be drinking enough water to have to urinate every 2-3 hours during the day.

CHALLENGE: don't flush your pouch
Wait 45-90 minutes after a meal before returning to fluids

Sweet drinks and bubbles
Bubbles can be painful (some have difficulty belching)
Sweet drinks promote obesity and may trigger a dumping episode.

Alcohol absorbs very rapidly and more completely
Easy to get drunk or toxic
Liquid OTC preparations may have sugar +/- alcohol.

Macro-nutrients (all of us)

PROTEIN

- Protein first and at every meal
- Helps with satiety
- Helps with sustained energy
- 60g-100g/day
- Less processed meats
 - Brats
 - Dogs
 - Case meats/cold-cuts (varies)

Macro-nutrients (all of us)

FATS

- Eat some fat at every meal
- Avoid processed fats
 - Shelf-foods often contain processed (trans) fats for shelf-life.
 - If it doesn't rot it's not food
- Better oils are:
 - Extra virgin Olive
 - Avocado
 - Coconut

Macro-nutrients (all of us)

CARBS

- Complex/slow carbs are the best
- Minimize simple/fast carbs
 - ✓ Sweets + sweet drinks
 - including juice
 - ✓ Flour-based foods
 - Breads
 - Pasta
 - Chips
 - Crackers
 - Pastries

Micro-nutrients

Vitamins

- Mult-vit complete (chewable)
- B-complex (B-50)
 - Make sure it contains at least 50mg thiamine
 - B-3 (niacin) in higher doses triggers red-face and flushed feeling.
- B-12 sublingual 500-1000mcg
 - WHY SL? With a smaller stomach there is much less intrinsic factor (necessary for B-12 absorption from the gut).
- D-3 5000 iu/day (check)

Micro-nutrients

Calcium

- Calcium citrate (Citrucel)
- Take 2-3 x/day (to a total of 1200-1600mg/d)

CHALLENGE: not close to when taking iron.

Iron

- ferrous sulfate does not absorb as well, is more likely to cause GI upset
- Ferrous Gluconate 325mg
- Take with vit C and not close to when taking calcium

TESTING for micros

<p><u>ROUTINE SCREEN</u></p> <ul style="list-style-type: none"> ▪ B-1 (Niacin) ▪ B-12 ▪ Calcium ▪ PTH ▪ Vit D-25 ▪ CBC ▪ Iron <ul style="list-style-type: none"> ▪ TIBC ▪ Ferritin ▪ Vit D 	<p><u>MANY OTHERS</u></p> <ul style="list-style-type: none"> ▪ B-6 ▪ Vit-A ▪ Vit E ▪ Vit K ▪ Selenium ▪ Zinc ▪ Copper ▪ etc.....
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Vitamin D is often low (<30)

TREATMENT

➤ **IF D is 15-25**

- Ergocalciferol 50,000 IU 3 times weekly for 4 weeks
- AND OTC D-3 5000 iu daily
- THEN Ergocalciferol 50,000 IU weekly (ongoing)

➤ **IF D is 1-14**

- Ergocalciferol 50,000 IU 3 times weekly for 8 weeks
- AND OTC D-3 5000 iu daily
- THEN Ergocalciferol 50,000 IU weekly (ongoing)

➤ **IF D is 25-35** Ergocalciferol 50,000 IU weekly (ongoing)

RECHECK after 3 months (and yearly)

B-1 (thiamine) + B-1

Vitamin B-1 below 60 is urgent.

- Thiamin IM 100mg daily for 3 injections
- OTC vitamin B-1 (thiamine) 100mg daily.
- Recheck in 3 weeks.

Elevated B-1 and B-12 are very common and not worrisome.

IF significantly elevated,
->THEN ok to reduce B-complex or B-12.
Recheck in 3-6 months

Pre-albumin

- **Pre-albumin** <20 indicates inadequate protein absorption.
- I ask patients to increase protein intake (maybe add a protein shake) and recheck in three to six months.

A word on Calcium

Calcium in the chem panel is not a reliable check
PTH
Vit D-25

IF Vit D is low, PTH is often very elevated

WHEN D is in normal range (50-80)
and PTH is high => insufficient calcium absorption

PTH takes calcium from your reserve (bones and teeth)

Abdominal Pain
is a common complaint

Eating Rules (habits)

- ✓ Eat too fast
- ✓ Eating too much
 - One bite can be all it takes to be too much
- ✓ Not chewing well enough
 - When in doubt spit it out

Abdominal Pain

Some foods may consistently be bothersome

- **Meat**
 - esp. dry chicken
 - When in doubt spit it out
- **Bread**
 - Toast or more substantial breads may be fine
- **Fruits with thicker skins**

Abdominal Pain

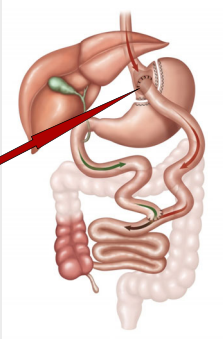
- **Pain with eating?**
 - **First bite => Think ULCER or stricture**
 - Is there nausea too? => THINK ulcer
 - **Toward the end of the meal (or after)**
 - Eating too much or too fast
 - Not chewing food well enough
 - Gallbladder
 - Pain is variable (wavelike) upper abdomen, often radiates to chest or upper back
 - Constipation
 - Pain is often lower in abdomen
 - May radiate to low mid back

Abdominal Pain

Nicotine use

Ulcer at GJ anastomosis

- Nicotine
- Regular use of NSAIDS



Protect the Pouch

GI irritants MUST GO

<p><u>NSAIDS</u></p> <ul style="list-style-type: none">- Motrin- Aleve/Naprosyn- Voltaren- etc.... - Aspirin	<p><u>ALTERNATIVES</u></p> <ul style="list-style-type: none">- Tylenol- Fish oil- Tramadol- Opioids- CBD oil
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PO steroids (daily)

- IM Steroids injections
- Interarticular steroids injections

Protect the Pouch

GI irritants MUST GO

Daily bisphosphonates such as Fosamax are irritating to the gut, trigger GERD.

ALTERNATIVES

- IV bisphosphonate + Zoledronic acid 5mg once yearly
- IV Ibandronate 3mg every 3 month
- PO Alendronate 70mg weekly
- PO Risedronate 35mg weekly (or 150mg monthly)
- PO Ibandronate 150mg monthly

PPIs
Omeprazole and more

When ongoing PPI therapy is indicated:

- Ongoing GERD sx (more likely in Sleeve patients)
- History of every having a gastric ulcer post-op
- Ongoing ulcer-promoting behaviors
 - Daily ongoing NSAID use
 - Nicotine use

MEDICATION ABSORPTION

Altered gut may mean altered absorption of meds

- No comprehensive pharmacokinetic studies on post-bariatric patients
- Mostly an issue with gastric bypass (RNY) and duodenal switch

MEDICATIONS

A smaller body may need a lower dose

Bottom-line
Monitor for the desired medication effect (and side-effects)
THEN adjust as needed.
Just like you do when starting a new med.

Skin and Bone issues

- **Extra skin**
 - Skin fold rash
 - Air and sun exposure
 - Daily Nystatin pwd
 - Periodic or prn Lamisil AT cream (or stronger antifungal)
 - Referral to plastic surgeon (document skin issues)
- **Bones resurfacing**
- **Loss of bone mass**
 - Osteopenia
 - Osteoporosis
 - Calcium and Vit D
 - Weight-bearing exercises

Weight regain

- **Old habits die hard (drift back)**
 - Distraction = mindlessness
 - Stress
 - Boredom
- **Our world makes it so easy**
- **Metabolism wanes**
- **Activity wanes**

Too much weight loss

- **May be a problem with the anatomy**
 - Stricture
 - Ulcer
- **No appetite**
- **Micro-nutrient deficiency and lead to macronutrient deficiency**
- **Eating disorder**

Transfer of addictions

- Alcohol
- Tobacco
- Other drugs
- Gambling
- etc.....

Diabetes

- Diabetes often resolves following bariatric surgery
- Diabetes can return
 - Weight regain
 - Poor eating
 - Sweets
 - Sweet drinks
 - Simple carbs
 - Sometimes just with time it can return

Sleep Apnea

- Sleep apnea often resolves (88%) with profound weight loss in the first year following surgery.
- CPAP or Bipap or AutoPap are often discontinued.
- Sleep apnea can return with weight gain.
- Chronically poor sleep greatly promotes weight gain. (which makes sleep apnea worse)
- Use Stop Band or Epworth scales yearly to see if a sleep consult (sleep study) is indicated.

TESTS considerations

- **Upper GI**
 - use thin Barium (water soluble) **150 cc max**

- **CT with oral contrast**
 - limit oral contrast to **150 cc**
 - give **just before** CT is to begin

- **Bowel prep for colonoscopies or pre-op**
 - give ½ volume over longer period of time (36 hours)
 - OR smaller-volume option

Caring for residents with obesity

- **The Diabetic Spectrum**
- **Sleep**
- **Skin Care**
- **Mobility**

The Diabetic Spectrum

Most who have obesity also have some degree of diabetes.

Syndrome X
Metabolic syndrome
Pre Diabetes
Diabetes (type 2)

A disorder of carbohydrate metabolism

Know your carbs

- Promote slow (complex) carbs
- Reduce or eliminate fast (simple) carbs

<p>Fast/simple carbs:</p> <ul style="list-style-type: none"> - Sweets <ul style="list-style-type: none"> - Including sweet ingredients - Sweet drinks (include milk) - All things flour + corn <ul style="list-style-type: none"> - Bread - Pastries - Pasta - Chips - Crackers 	<p>Slow/complex carbs:</p> <ul style="list-style-type: none"> • Veggies • Greens • Legumes • Nuts & Seeds
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Fruits

Processed foods kill

- Meats are better if it's just meat
 - Avoid processed meats
 - Brats
 - Dogs
 - Case meats/cold-cuts (varies)
- Read the ingredients list
 - Rule #1: the fewer ingredients the better (healthier)
 - Rule #2: food that doesn't rot is not food

Sleep

- Enough sleep
- Sleep apnea & Hypoventilation
- Bed Elevation

Skin Care

- **Daily bathing**
- **Skin fold cleaning**
 - Drying
 - Sun light exposure
 - Medications
 - Nystatin powder
 - Other anti-fungals (prescription)
 - Gold bond

Mobility & Safe Transfer

- Patients with obesity often require more frequent repositioning as they are at higher risk of:
 - wounds
 - impaired circulation
 - nerve damage
 - respiratory distress
- Patient's may be less able to assist with transfers and repositioning
- Patient weight may exceed the capacity of available equipment

Movement => health

- Move often
- Footwear
- Gait Belt
- Walker

Anticipate his/her needs

- bariatric bed
- chair without arms
- accessible bathroom
- appropriate-sized blood pressure cuffs
- appropriate-sized hospital gowns
- **Become knowledgeable of your equipment:**
 - weight capacity
 - location
 - blood pressure cuffs
 - reinforced toilets, etc...
- Be mindful of the amount of physical space between items such as the bed, toilet, walls, etc.

Tools to Move

- **Stands:** used when a patient is able to bear some weight, has upper body strength, and follows commands
- **EZ-Lifts, Hoyer Lifts, and Ceiling Lifts:** used when a patient is unable to follow commands and/or unable to bear weight to upper or lower extremities
- **Hover Matt:** used for assistance with lateral sliding transfers
- **Gait Belt:** used when a patient is weight bearing or partial weight bearing and requires assist for ambulation and transfer activities.

Tools to Move

- **Encourage patient to assist in their own transfers and repositioning when possible.**
- **Seek input from the patient and family on successful strategies they may have used at home for safe maneuvers.**
- **Discuss transfer and positioning with your patient/resident PRIOR to the event.**
- **Be consistent across staff.**
 - What works best for each patient

Tact

- Choose words carefully
- Communicate using supportive language
- Put yourself in the patient’s shoes and try to avoid using any statements or language that may be misinterpreted in a negative context
- Focus every statement and action on the care, quality, safety, comfort and providing a patient-centered experience for your patient

**Obesity is a chronic illness
NOT A CHARACTER FLAW**

- We don’t judge or laugh at those with:
 - Diabetes
 - Heart disease
 - Cancer
 - COPD
 All these have a lifestyle component
Obesity is just as deadly
- We still don’t know all there is to know about the causes of obesity.
- Train your staff to be sensitive by being a good role model.
- Don’t tolerate behind-the-back whispers and jokes about obesity, even in private.
- Lead by example

**Obesity is a chronic illness
NOT A CHARACTER FLAW**

- Train your staff to be sensitive
- Don’t tolerate behind-the-back whispers and jokes about obesity, even in private.
- Lead by example (be a good role model)

There is no shortage of shame

thrown at individuals with obesity

- People with obesity have endured decades of prejudice from every corner of life.
- Choosing bariatric surgery is often met with negative judgements (even by medical staff).
“That’s the easy way” “That’s so extreme”

Tact

- Refer to patients as those who suffer from morbid obesity
– rather than the *“morbidly obese patient”* or other derogatory terms. We wouldn’t refer to a patient with ovarian cancer as *“the ovarian cancer women.”*
- Avoid referring to bariatric equipment in ways that might offend such as *“big boy bed.”*

Respectful Habits

- Introduce yourself and your role.
- Establish and maintain eye contact.
- Get to know the patient as an individual.
- Avoid assumptions based on weight, BMI, size and appearance.

Respectful Habits

- **Avoid using medical jargon & unfamiliar language.**
- **Practice teach-back and reflective listening.**
- **Communicate in a calm manner.**
- **Partner with & discuss plan of care with patient.**

CHALLENGE

Go a day without saying "big words."

- **Big**
- **Huge**
- **Large**
- **Massive**
- **Etc....**
