

SSM Health Weight Management Services

- Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program – *Accredited Center*
- We offer a **comprehensive weight loss program** designed at fitting the right weight loss program for you.



Medical Director and Bariatric Surgeon

- Mario Morales, MD
- Graduate of University of California at San Diego School of Medicine
- Completed residency at University of Missouri Columbia
- **Advanced fellowship in weight loss surgery**
- Mechanical Engineer – assists in the design of instruments
- Published / Guest Lecturer



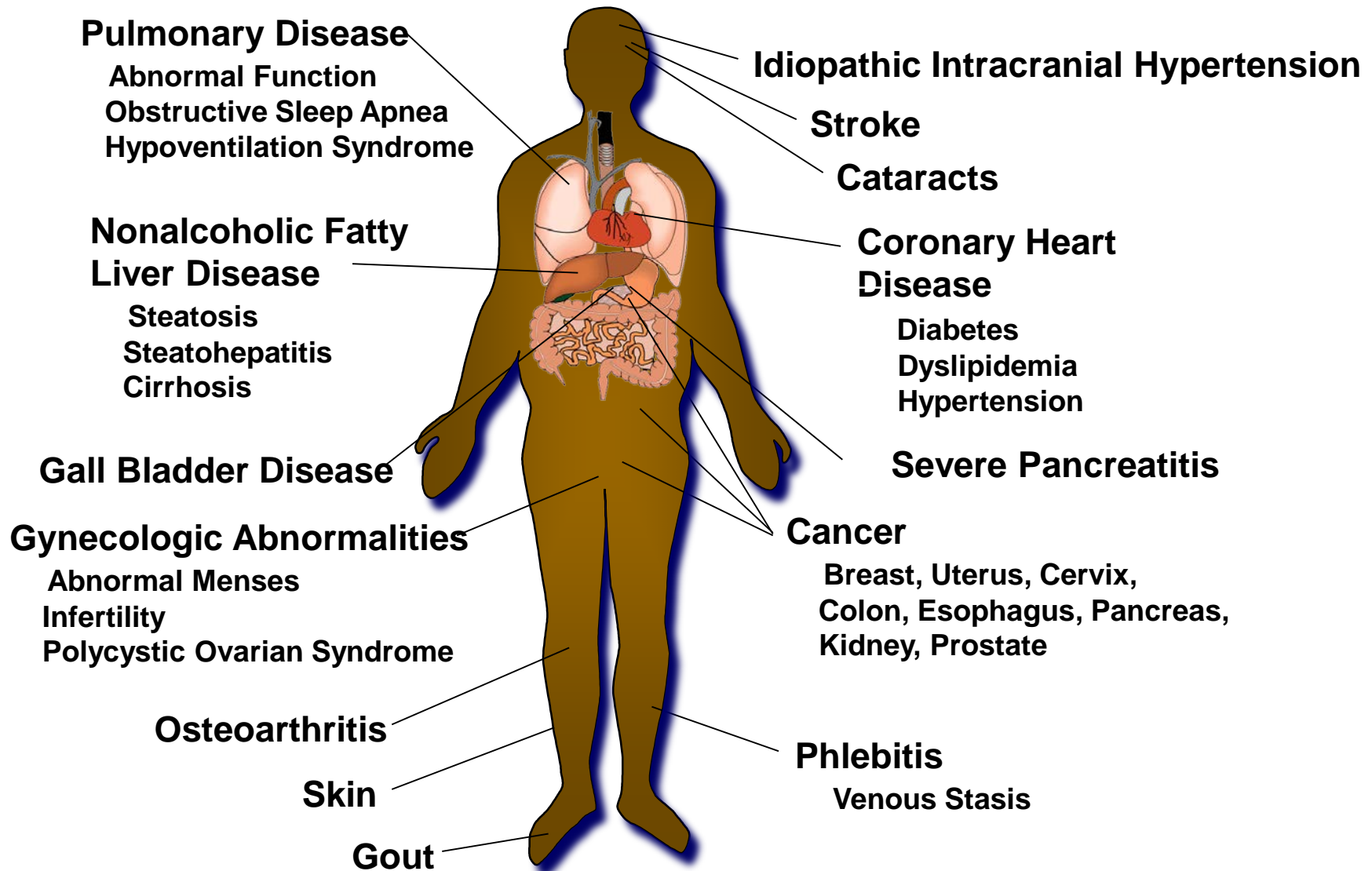
Agenda

- Discuss obesity as a disease
- Key components to weight loss
- Surgical options for weight loss
 - Sleeve Gastrectomy
 - Roux-en-Y Gastric Bypass
 - Duodenal Switch
 - Gastric Banding

The Cause of Obesity

- Not simple
- Many factors have been shown to lead to obesity:
 - Metabolic
 - Hormonal
 - Increased caloric consumption
 - Lack of physical activity
 - Genetic

Medical Complications of Obesity¹



1. Obesity OnLine slide presentation. Accessed May 17, 2007. Accessible as slide #5 at <http://www.obesityonline.org/slides/slide01.cfm?tk=33>.

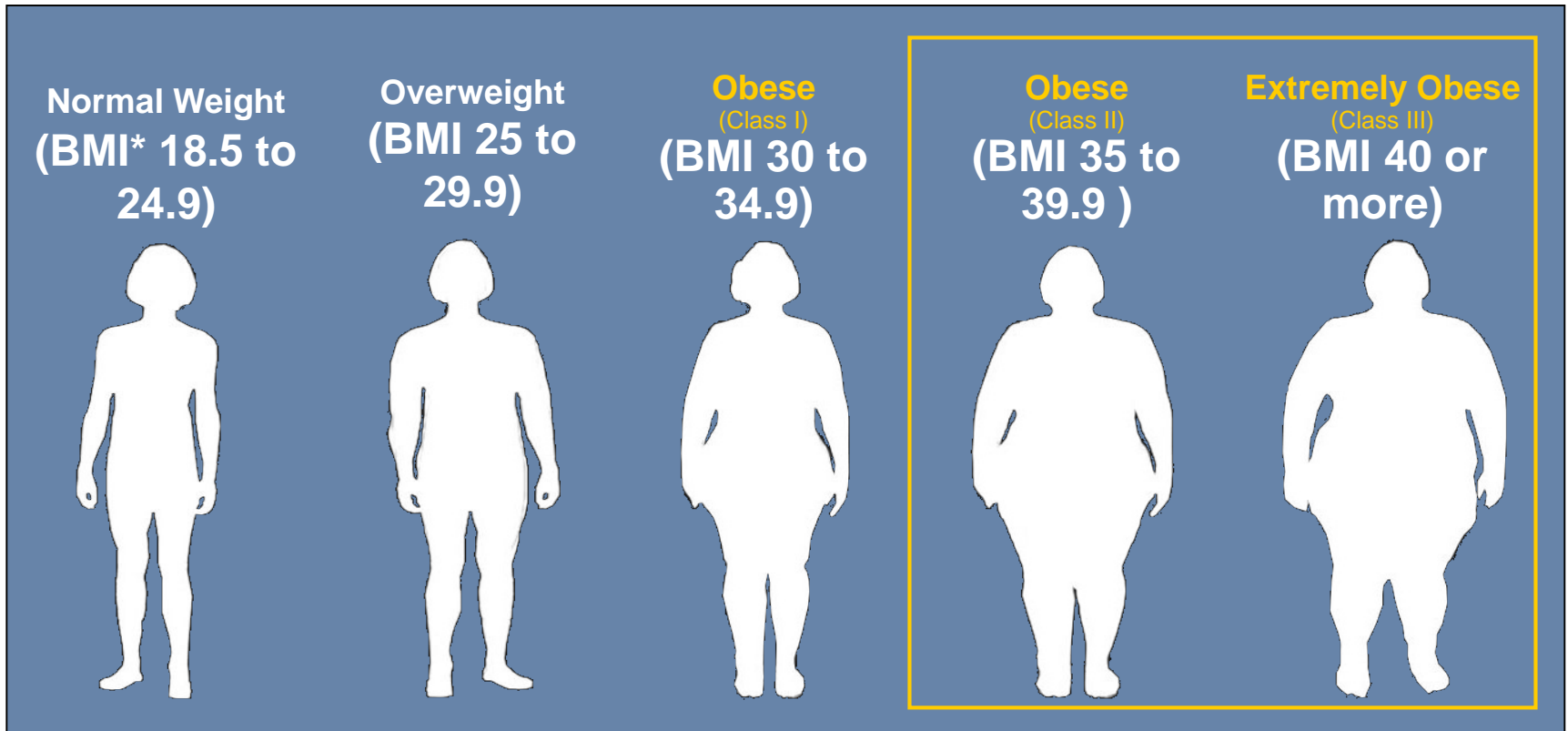
Treatment of Obesity

- Weight loss is not easy
 - Significant long term weight loss is often not successful for many patients
- Aggressive intervention is required for long-term success
 - Diet and exercise are still the foundation
 - Tools are needed to help control caloric intake

What's Your BMI?

		Weight (lbs)																		
		120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
Height	5'0"	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59
	5'2"	22	24	26	27	29	31	33	35	37	38	40	42	44	46	48	49	51	53	55
	5'4"	21	22	24	26	28	29	31	33	34	36	38	40	41	43	45	46	48	50	52
	5'6"	19	21	23	24	26	27	29	31	32	34	36	37	39	40	42	44	45	47	49
	5'8"	18	20	21	23	24	26	27	29	30	32	34	35	37	38	40	41	43	44	46
	5'10"	17	19	20	22	23	24	26	27	29	30	32	33	35	36	37	39	40	42	43
	6'0"	16	18	19	20	22	23	24	26	27	29	30	31	33	34	35	37	38	39	41
	6'2"	15	17	18	19	21	22	23	24	26	27	28	30	31	32	33	35	36	37	39
	6'4"	15	16	17	18	20	21	22	23	24	26	27	28	29	30	32	33	34	35	37

Obesity Categories

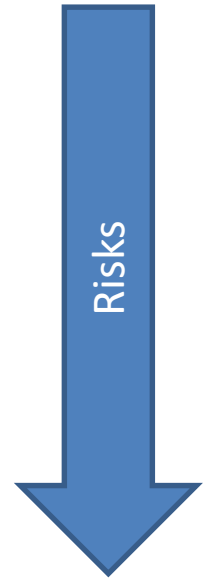


BMI (Body Mass Index): A measurement of an individual's weight in relation to height (kg/m^2).

National Institutes of Health/National Heart, Lung and Blood Institute Clinical Guidelines Evidence Report. NIH Publication 98-4083, September 1998.

Surgical Weight Loss Options

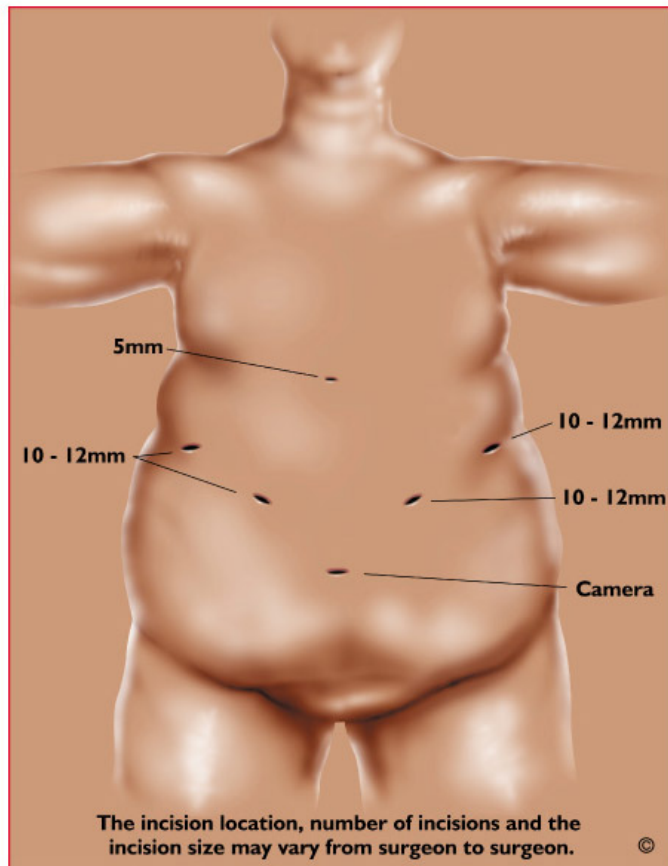
- Adjustable gastric banding
- Sleeve gastrectomy
- Roux-en-Y gastric bypass
- Biliopancreatic diversion Duodenal Switch
- Qualifications
 - Surgical Options
 - BMI of 40 or over
 - BMI of 35-40 with significant co-morbidity



- **MOST EFFECTIVE OPTION FOR LONG TERM WEIGHT LOSS**

Laparoscopic Weight Loss Surgery

Incisions for Laparoscopic Weight Loss Surgery



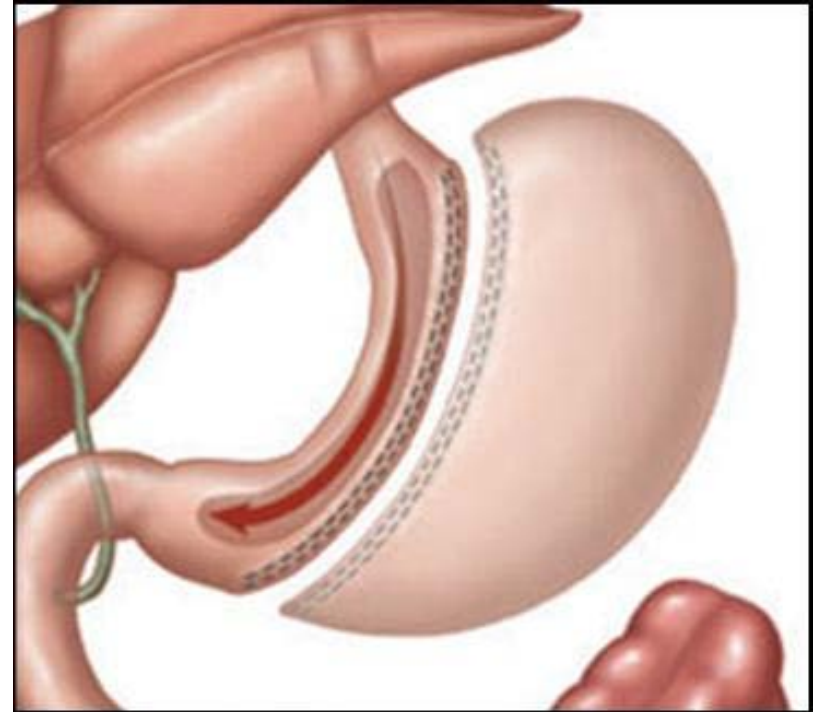
- Fewer wound complications
- Less pain
- Shorter hospital stay
- Earlier return to work

Weight-Loss Procedures

- Restriction
 - Adjustable gastric banding
- Restriction with Hormonal Changes
 - Sleeve gastrectomy
- Restriction and malabsorption
 - Roux-en-Y gastric bypass (more restrictive)
 - Duodenal Switch (more malabsorptive)

Vertical Sleeve Gastrectomy

- Restrictive with hormonal changes
- Newest procedure offered
- Has become most commonly performed procedure in U.S.
- Early 60-65% excess weight loss or 60-65 lbs in person 100 lbs overweight
- 1-2 night stay
- Off work 1-2 weeks
- Follow-up at 1 wk, 1 mth, 6 mths then yearly

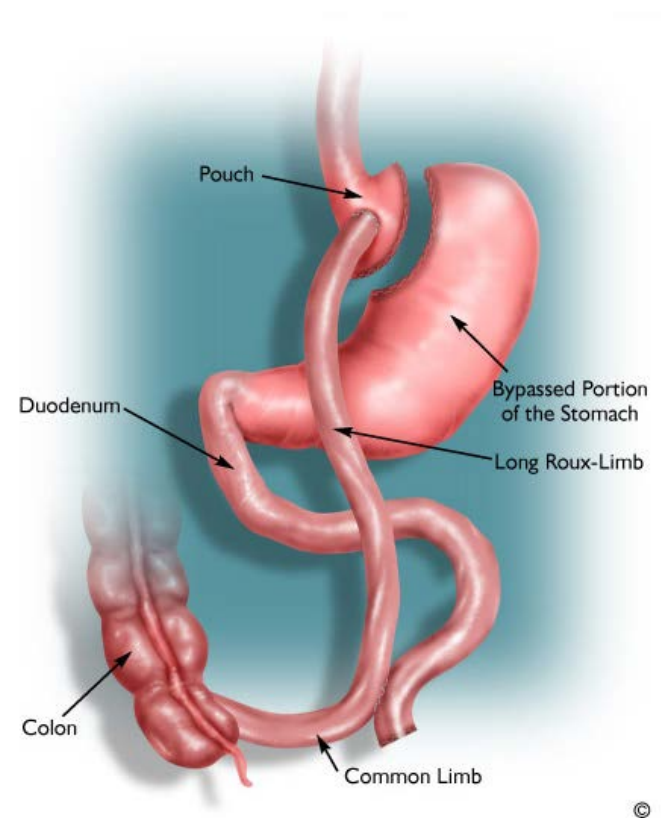


Sleeve Gastrectomy

Sleeve Gastrectomy

Roux-en-Y Gastric Bypass

- Combination of restrictive and malabsorptive
- First done in 1967
- Laparoscopically since 1993
- 75% excess weight loss or 75 lbs in person 100 lbs overweight
- 1-2 night stay
- Off work 1-2 weeks
- Follow-up at 1 wk, 1 mth, 6 mths then yearly

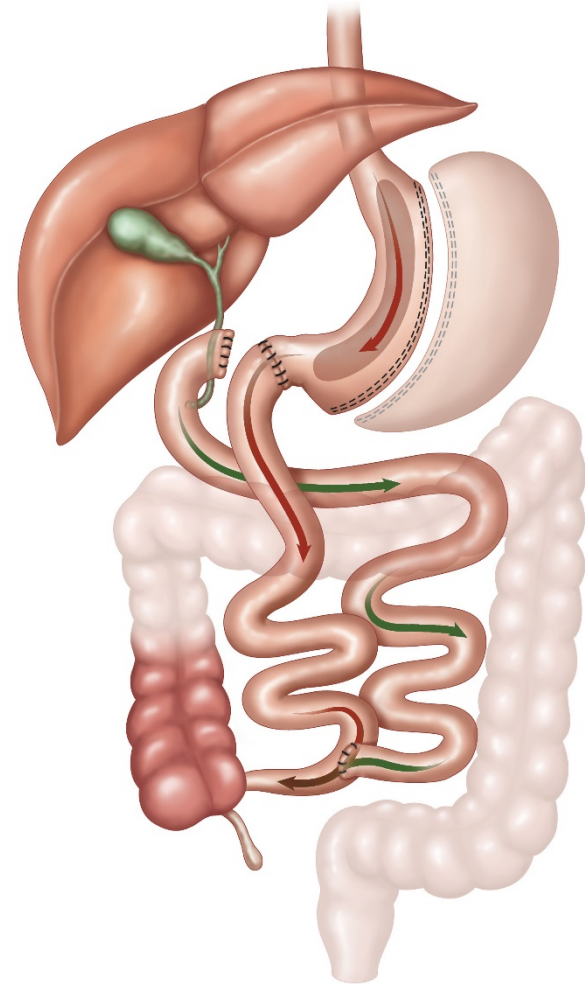


Roux-en-Y Gastric Bypass

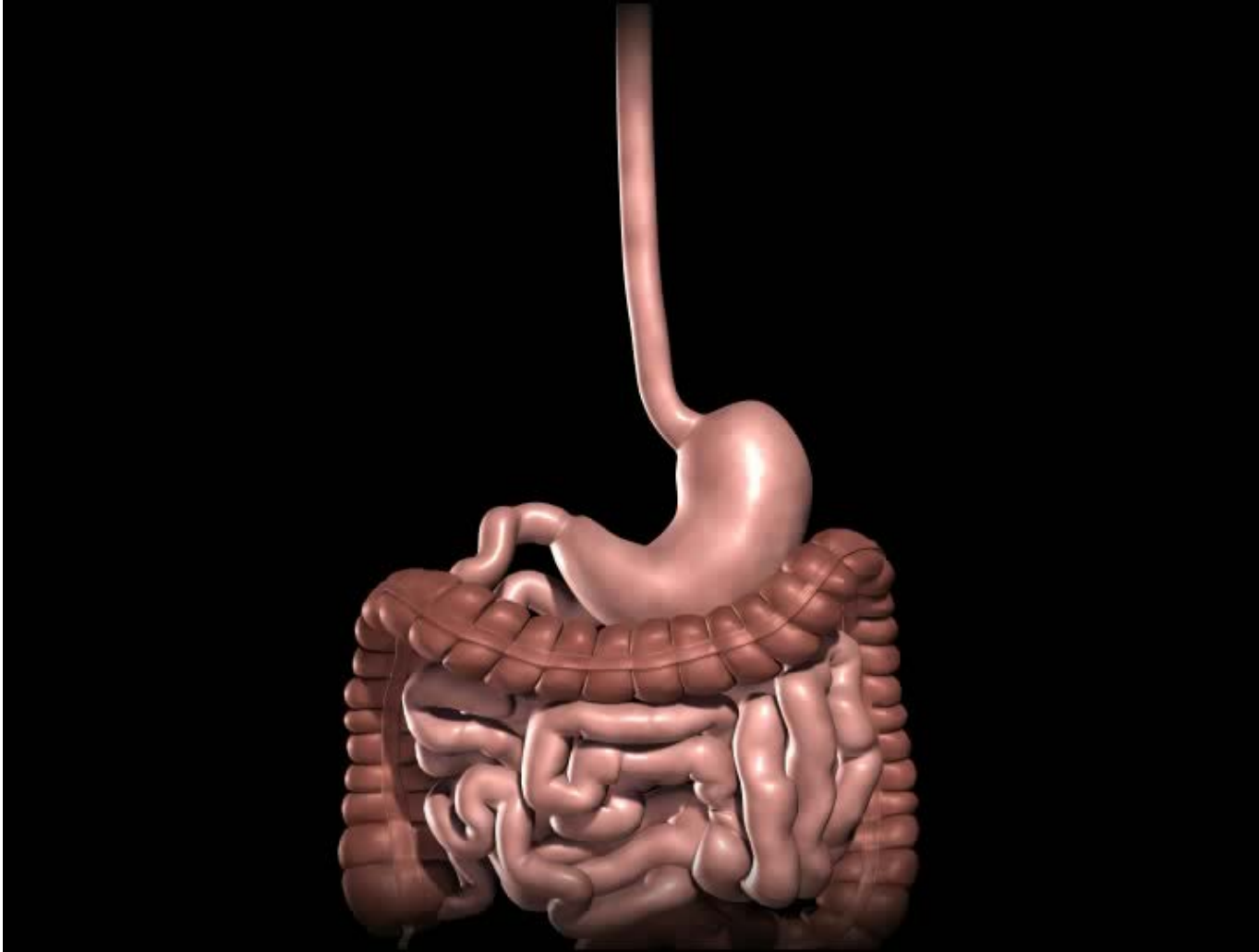
Gastric Bypass

Duodenal Switch

- Combination of restrictive and super malabsorptive
- 80% excess weight loss or 80 lbs in person 100 lbs overweight
- High co-morbid resolution
- 2-3 night stay
- Follow-up at 1 wk, 1 mth, 3mths, 6 mths, 9 mths, 12 mths then yearly
- NOT all insurances cover this procedure!



Duodenal Switch



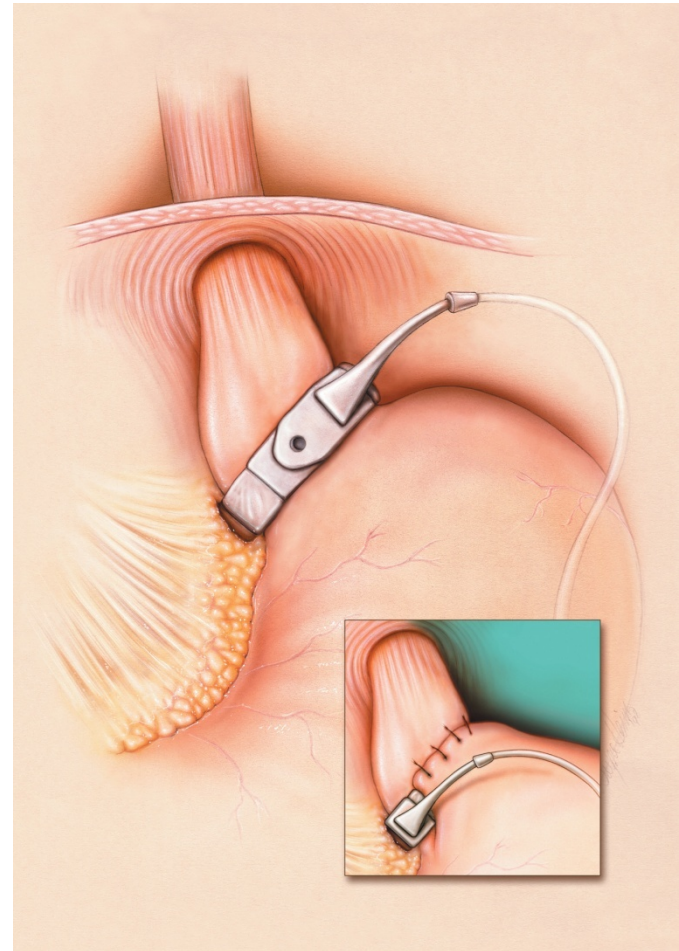
Possible Risks and Complications

Complication	Lap-Band	Sleeve Gastrectomy	Gastric Bypass	Duodenal Switch
Death	Approx 0%	1/1000	1/1000	1/1000
Infection	1-2%	1-2%	1-2%	1-2%
Major bleeding	<1%	<1%	1%	1%
Leak	NA	<1%	1-2%	1-2%
GI Issues	From complication of band	Nausea early, rare for long term side effects	Upper GI SEs (chronic nausea, pain with eating, dumping)	Gas and Diarrhea (lower GI system)
Malnutrition (i.e. losing too much weight)	Rare	Very uncommon	<1-2%	3%
Erosion of band	<1%	NA	NA	NA
Obstruction	From band slip	From kinking of sleeve or stricture (<1%)	1% per year, internal hernia or scar tissue	1% per year, internal hernia or scar tissue
DVT/PE	Rare	0.5%	0.5%	0.5%
Stricture/ulcer	NA	<2%	Up to 15% usually if smoke or use NSAIDs	<10%
Others: need for reoperation, cardiopulmonary dysfunction, kidney dysfunction				

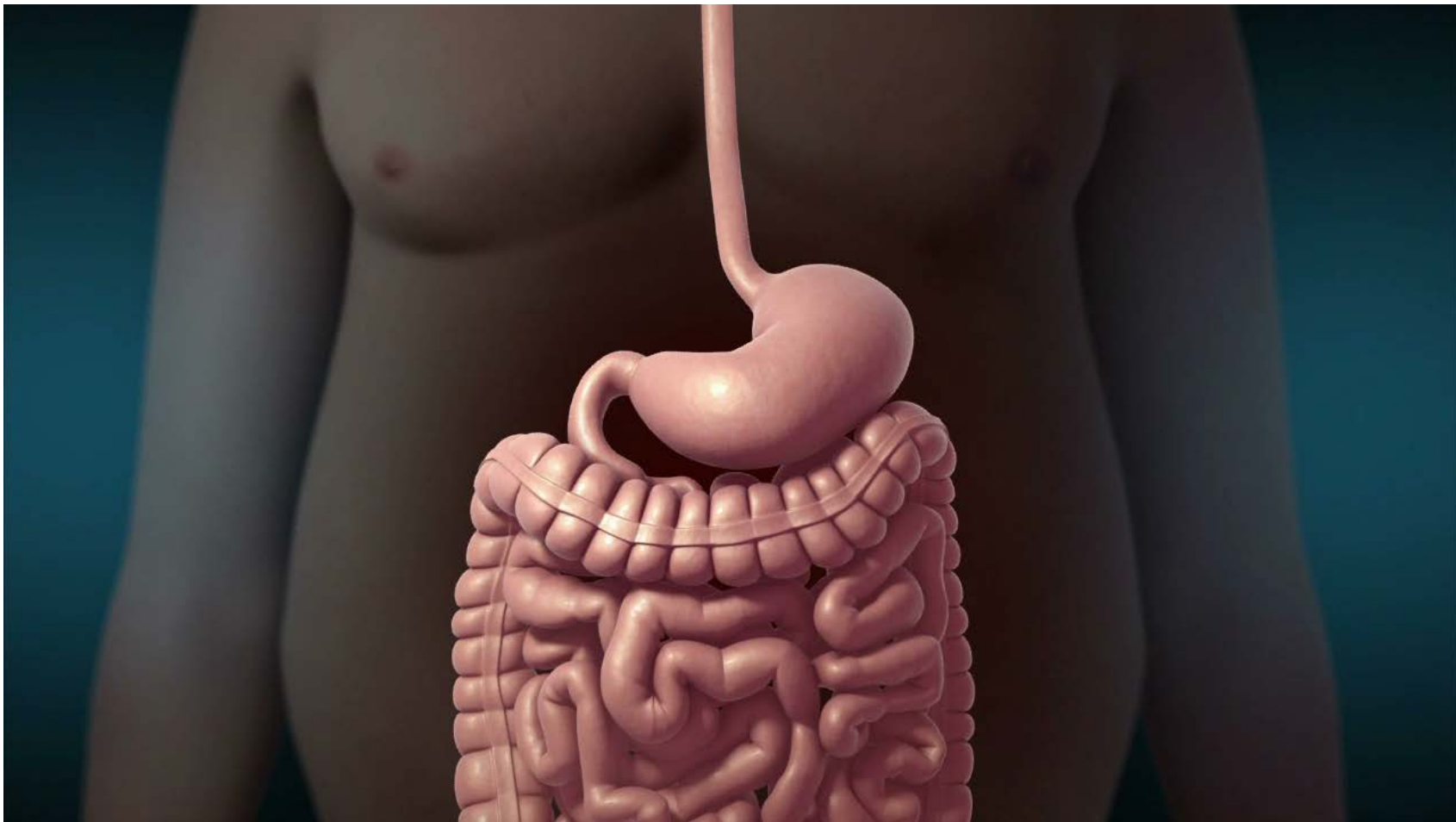
QUESTIONS?

Laparoscopic Adjustable Gastric Banding

- Restrictive
- 50% average excess body weight loss
- Approx. 50 lb weight loss in person 100 lbs overweight
- Outpatient surgery
- Follow-up at 1 week then monthly for adjustments



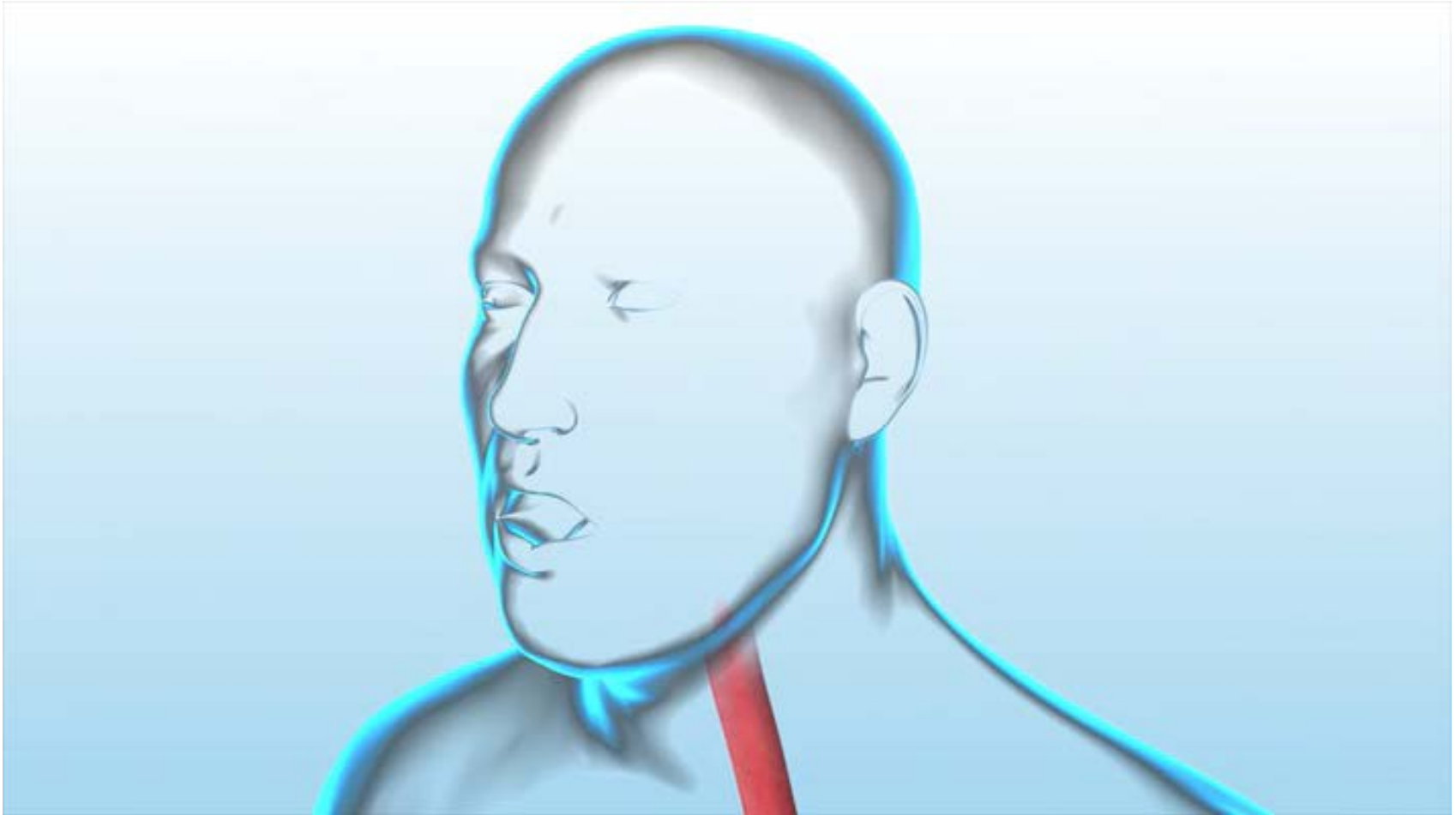
Adjustable Gastric Banding



Intragastric Balloon

- BMI 30-40 kg/m²
- Willingness to participate in comprehensive weight loss program including physicians, dietitians, mental health providers and exercise counselors
- Ability to pay for procedure
- Weight loss 3x as high as diet and exercise
- Average 22lb weight loss in first 6 months

Intragastric Balloon Placement



Intragastric Balloon Removal



Intragastric Balloon Complication

- Nausea and Vomiting
- Balloon rupture
- Balloon deflation
- Inadequate weight loss
- Early Removal
- Injury to esophagus or stomach
- Bowel obstruction