Cahaba Valley Surgical Group
Fat and Happy > Skinny and Miserable.
I never step on the scale...

...because the scale doesn't measure sexy.
FAT PEOPLE ARE HARDER TO KIDNAP

BE NICE TO FAT PEOPLE
ONE DAY THEY MAY SAVE YOUR LIFE
I know, I'm fat but I'm happy

Problem?
What is obesity?

Why does it matter?
Obesity is…

…a disease in which fat has accumulated to the extent that health is impaired.

It is also…

- multi-factorial (many different factors can cause obesity)
- life-long
- progressive
- potentially life-threatening
- costly

Obesity is a complex, multi-factorial, chronic metabolic disease

Obesity involves the following factors:

- Genetic
- Metabolic
- Physiological
- Psychological
- Environmental
- Behavioral

Obesity: Feeding the epidemic

Burger: $0.99
Salad: $4.99
A contributing factor to obesity is the body’s metabolic “set point”

Reduced calorie diet forces weight loss

Physiology reacts to deviation from metabolic set point
Obesogenic hormone expression activated

Increased appetite

WEIGHT REGAIN

Laurel (Leptin) and Hardy (Grehlin)
HOW GHRELIN AND LEPTIN WORK IN THE BODY

**GHRELIN**
**THE APPETITE STIMULATOR**
Ghrelin is released from the stomach, and when elevated, sends a signal to your brain letting you know you’re hungry and it’s time to eat! Age, gender, blood glucose, and leptin levels can all affect ghrelin levels.

**LEPTIN**
**THE APPETITE SUPPRESSOR**
Leptin, which is stored and secreted by fat cells, is considered to be the master regulator of hunger. When you eat a meal, leptin is released from fat cells and sends a signal to your brain to let you know you’re full and to stop eating.
LEPTIN AND WEIGHT-GAIN CYCLE

GAIN WEIGHT
As you gain more fat mass, the number of fat cells increase, as do leptin levels.

LEPTIN RESISTANCE
As you increase fat stores and whole-body inflammation, your body develops leptin resistance.

INCREASED CALORIE INTAKE
Even though you increase calorie intake, you are continually hungry, which leads to continued weight gain.

OVEREATING
The brain senses low leptin levels, leading to food cravings and overeating.

DISRUPTED SIGNAL
Even though you have an abundance of stored fat and leptin, the signal to your brain gets disrupted.
How do we measure obesity?

According to the National Institute of Health – **Body Mass Index (BMI)** is a measure of body fat based on height and weight that applies to both adult men and women.

<table>
<thead>
<tr>
<th>Classification</th>
<th>BMI</th>
<th>Health Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>18.5-24.9</td>
<td></td>
</tr>
<tr>
<td>Overweight</td>
<td>25.0-29.9</td>
<td>Mild</td>
</tr>
<tr>
<td>Obesity (class I)</td>
<td>30.0-34.9</td>
<td>Moderate</td>
</tr>
<tr>
<td>Obesity (class II)</td>
<td>35.0-39.9</td>
<td>Severe</td>
</tr>
<tr>
<td>Extreme Obesity (class III)</td>
<td>40+</td>
<td>Very Severe</td>
</tr>
</tbody>
</table>
If your overweight, your not alone

- Approximately **70%** of adults are overweight or obese.¹
  - 160 million Americans - 75% male, 60% female
    - Non Hispanic Black – 48.1%
    - Hispanic – 42.5%
    - Non Hispanic White – 34.5%
    - Asian – 11.7%
- **17%** of children (2-19 years old) are obese.²
- **6.3%** of adults are extremely obese (BMI ≥ 40).¹
  - 400% increase since 1986

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Obesity Epidemic

Percent Obese (BMI ≥30)

Obesity Epidemic

Percent Obese (BMI ≥30)

Obesity Epidemic

Percent Obese (BMI ≥30)

Obesity Epidemic

Percent Obese (BMI ≥30)

Obesity Epidemic

Leanest State
Colorado

Percentage of Obese Adult Population
(3-year average from 2012-14 CDC Behavioral Risk Factor Surveillance System data)

Fattest State
Mississippi

CalorieLab’s
UNITED STATES
OF OBESITY 2015

SURGICAL TREATMENTS FOR OBESITY | Dr. Tim Christopher
What’s the cost?

- Total medical costs for obesity in 2008 was $147 billion.\(^1\)
  - Obese spend 42% more on direct healthcare cost compared to healthy weight individuals
- Obesity-related absenteeism cost US companies $73 billion
- Each BMI point > normal = ~ $200 / year/ employee
  - normal-weight employees cost on average $3,838/year in health care costs
  - overweight to morbidly obese employees cost between $4,252 and $8,067.

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Medical visits and costs go up as BMI goes up

Utilization rates as a proportion compared to normal or underweight persons (BMI<25).

SURGICAL TREATMENTS FOR OBESITY | Cahaba Valley Surgical Group, PC
What’s the cost?

- **300,000 obesity-related deaths** occur annually.
- Second leading cause of preventable deaths in the US
  - Elevated Cardiac Risk
  - Elevated Risk of Cancer
    - Endometrial
    - Colon/rectal
    - Esophageal
    - Kidney
    - Pancreas
    - Post menopausal Breast

High BMI can decrease life expectancy

Relative risk of mortality reduced by 89% in a five year period

Graph represents years of life lost for white women.
Health conditions related to obesity

- Pulmonary disease
  - abnormal PFTs
  - obstructive sleep apnea
  - hypoventilation syndrome

- Nonalcoholic fatty liver disease
  - steatosis
  - steatohepatitis
  - cirrhosis

- Gallbladder disease

- Gynecologic abnormalities
  - abnormal menses
  - infertility
  - polycystic ovarian syndrome
  - stress incontinence

- Osteoarthritis

- Skin

- Gout

- Depression
- Stroke
- GERD
- Cardio/Metabolic Syndrome
  - diabetes
  - dyslipidemia
  - hypertension
  - metabolic syndrome

- Severe pancreatitis
- Cancer
  - breast, uterus, cervix, colon, esophagus, pancreas
  - kidney, prostate

- Phlebitis
  - venous stasis

- Premature Death

References at end of presentation
Physical and Psychological Obstacles
## Options and expectations

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Excess Weight Loss 3 Years</th>
<th>Excess Weight Loss 5 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diet / Behavior¹</td>
<td>+ 0.1%*</td>
<td>+ 1.6%**</td>
</tr>
<tr>
<td>Drug therapy²</td>
<td>11%*</td>
<td><em>No data</em></td>
</tr>
<tr>
<td>Gastric bypass surgery³,⁴</td>
<td>71%</td>
<td>93%</td>
</tr>
<tr>
<td>Adjustable gastric banding⁵,⁶</td>
<td>41%</td>
<td>59%</td>
</tr>
<tr>
<td>Sleeve gastrectomy⁷,⁸</td>
<td>66%</td>
<td>60%</td>
</tr>
</tbody>
</table>

* Average weight loss, 2 years
** Average weight loss, 10 years

Values in parentheses indicate weight gain. Full list of references at end of presentation.
What are the surgical options?
Obesity and Bariatric Surgery

Goldie Hawn's daughter Kate Hudson weds a rock star

HALF HER SIZE!

Seventeen months after stomach-reducing surgery, singer CARNIE WILSON has dropped 150 lbs. and 20 dress sizes. 'I can't believe it's me in that tiny body!'

People

Today's Al Roker

HOW I LOST 100 POUNDS

The morning TV star talks about the stunning weight loss that changed his life. Says a delighted Roker: 'I'm never going back'

People

SURGICAL TREATMENTS FOR OBESITY  |  Cahaba Valley Surgical Group, PC
What’s in a Name?

*Surgical evolution* – incisional, extirpative, and reparative organ specific – infection/cancer/trauma/malfunction

1978 - “*Metabolic Surgery*” – Richard Varco/Buchwald

“operative manipulation of normal organ or system to achieve a biologic result for potential health gain”
Algorithm for the treatment of T2D, as recommended by DSS-II voting delegates

Francesco Rubino et al. Dia Care 2016;39:861-877
Who is a candidate for bariatric surgery?

• BMI >35 with co-morbidities (obesity related diseases) or >40 without*
• Healthy enough to undergo a major operation
• Failed attempts at medical weight loss
• Absence of drug and alcohol problems
• No uncontrolled psychological conditions
• Consensus by multi-disciplinary team
• Understands surgery and risks

Must be dedicated to a lifestyle change and lifetime follow-ups


Only a patient and their physician can determine if surgery is right for them. All treatment options should be discussed with health care professionals.
History and Options for Bariatric Surgery
Orbera - Intragastric Balloon
Roux en Y Gastric Bypass
Risk and Benefits Associated with Gastric Bypass

Procedure: Combined Restrictive/Malabsorptive

Benefits:
- 71% excess weight loss after 3 years
- 10-14 years maintain 60% EWL
- 96% resolution of associated comorbid diseases

Risks:
- Anastomotic leak, stricture of anastomosis, ulcer formation
- Bowel obstruction – internal hernia, afferent loop obstruction
- Dumping Syndrome
- Bypass portion of stomach and duodenum not accessible
- Malabsorptive/Nutritional deficiency – Fe, B12, Ca
Sleeve Gastrectomy

70-80% of the stomach removed
**Vertical sleeve gastrectomy**

- Laparoscopic
- Mean excess weight loss at 3 years of 66%\(^1\)
- No implanted medical device
- Weight loss and improvement in metabolic parameters are connected with the resection of the stomach and subsequent neurohormonal changes.

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What are the risks and complications of a vertical sleeve gastrectomy?

- Gastric leak
  - Intra-abdominal abscess
- Splenic injury
- Stricture
- Late cholelithiasis
- General Operative risk

Note: Your weight, age and medical history play a significant role in determining your specific risks. Your surgeon can inform you about your specific risks for bariatric surgery.
What can you expect after sleeve gastrectomy or gastric bypass?

• Recovery
  • Most procedures will require overnight stay, but some may be able to performed in outpatient setting
  • Liquid diet initially with slow advance to a soft diet in 1-2 weeks
    • Sleeve or pouch size approximately 3 oz.
  • Estimate off work 2-3 weeks – but may be able to return to low impact setting in 1 week
  • Wound care: laparoscopic incisions; shower post op day one
  • Walking daily; avoid heavy lifting or straining for 2 weeks

• Follow up
  • 1-2 weeks for post op check
  • Every 3 months for first year
  • Annual visit for 5 years with lab evaluation

• Weight loss Averages
  • 30-50 pounds at 3 months
  • 80-100 pounds at a year
Resolving your obesity related health conditions

Obstructive sleep apnea
45% to 76% resolved

Asthma
39% improved

Type 2 diabetes
45% to 68% resolved

High blood pressure
42% to 66% resolved

Urinary stress incontinence*
50% resolved

Osteoarthritis*/ Degenerative joint disease
41% resolved

Depression*
47% reduced

Migraines*
46% improved

Nonalcoholic fatty liver disease
37% resolution of steatosis

References at end of presentation.

* Study population predominantly female.
Patients Results

215

139
Our Patients Results

260

118.4
Our Patients Results

248

163.4
Our Patients Results

284.5

179*

* 1/287/16 weight
Surgery *can* change lives…

- Improves or resolves obesity related diseases
- Decreases mortality risk
- Reduces healthcare utilization and direct healthcare costs

**BUT…surgery is a tool that requires commitment to a lifestyle change to meet long term goals**

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What are the next steps?
What are the next steps?

- Contact Coordinator and/or Attend a seminar
- Schedule initial consultation with surgeon
- Verify benefits and obtain insurance authorization
- Psychological evaluation
- Nutritional evaluation & counseling with one of our dieticians
- Pre-operative testing
- Surgery
- Lifelong follow-up appointments and support groups
Insurance

- Requirements for approval depend on your policy
- Most Require:
  - BMI >40 or >35 with significant co-morbidities
  - Documented history of medical weight loss attempts (3-6 months)
  - 5 year weight history
  - Psychological evaluation
  - Nutrition counseling
- **We are here to help you! We will…**
  - Verify your benefits to ensure coverage
  - Review your specific plan requirements with you at your 1st visit
  - Submit your documentation for insurance approval for surgery
  - Provide examples of documentation required by insurance

- However…patients’ active involvement is very helpful in moving the process along
Contact

Shelby Coordinator: Kaye O’neil: 620-8831

CVSG Office : 620-9065

Cahabavalleysurgical.com to access patient information and forms.
Questions????
References for “Many serious health conditions are related to obesity”

References for “Setting your expectations”

References for “Resolving your obesity related health conditions”


