THE BARIATRIC SURGERY PROGRAM OF IRELAND ARMY COMMUNITY HOSPITAL
Welcome to an overview of Bariatric Surgery.

We congratulate you for taking this first step on your weight loss surgery journey.
OUR BARIATRIC TEAM...

- Dr. Carl Tadaki, MD
- Dr. Raymundo Racela, MD
- Dr. Lionel Brounts, MD
- Angela Angus, RN
  Bariatric Nurse Coordinator
- Laura Bottoms, RD
  Registered Dietitian
Obesity Myths and Facts
Myth #1:

People only become obese and overweight because they do not engage in weight loss efforts including physical activity and have unhealthy eating habits.
Fact:

It is important to remember that obesity is not always a behavioral issue. Although physical activity and eating habits are major contributors to obesity, there are other elements to consider. In many cases, weight loss require a balanced combination of behavioral change and medical/scientific evaluation and treatment.
Myth #2:

Once committed to a weight-loss regimen, obese individuals should attempt to lose a large amount of weight as quickly as possible.
Fact:

Actually, weight loss, especially fast weight loss (more than three pounds per week) or loss of a large amount of weight quickly can increase the risk of not being able to maintaining the loss, and can also cause other conditions such gallstones. Maintaining a steady regimen of about one to two pounds a week over time is more sustainable.
Myth #3:

Weight gain in women over time is healthy and part of a natural aging process.
Fact:
Although metabolism may change over time, weight gain is not a normal part of the maturation process and may actually increase a woman’s risk of obesity-related disease. According to a report recently published by the Office of the Surgeon General, women who gain more than 20 pounds from the age of 19 to midlife, double their risk of postmenopausal breast cancer.
Myth #4:

Obesity is not that big of problem, the media is over reacting, again.....
Fact:

Obesity is now the 2\textsuperscript{nd} leading cause of preventable death in the United States.

From 01 January 2012 to 10 June 2012, there has been 136,155 obese related deaths reported in the US.
Obesity in the United States
2010 Obesity Trends by States

During the past 20 years, there has been a dramatic increase in obesity in the United States and rates remain high. In 2010, no state had a prevalence of obesity less than 20%. Thirty-six states had a prevalence of 25% or more; 12 of these states (Alabama, Arkansas, Kentucky, Louisiana, Michigan, Mississippi, Missouri, Oklahoma, South Carolina, Tennessee, Texas, and West Virginia) had a prevalence of 30% or more.
NATIONAL ADULT OBESITY TRENDS & FACTS

Obesity is common, serious and costly.

- About one-third of U.S. adults (33.8%) are obese.

- No state has met the nation's *Healthy People 2010* goal to lower obesity prevalence to 15%. The number of states with an obesity prevalence of 30% or more has increased to 12 states in 2010.

- By state, obesity prevalence, on the basis of self-report, ranged from 21% in Colorado to 34% in Mississippi in 2010. Twelve states had a prevalence of 30% or more.

- 78% of American are not meeting the basic activity level recommendations.
17 million children, ages 2-19 are obese

Overweight prevalence is higher in boys (32.7 percent) than girls (27.8 percent). In adolescents, overweight prevalence is about the same for females (30.2 percent) and males (30.5 percent).

New study suggests one in four overweight children is already showing early signs of type II diabetes.

60% already have one risk factor for heart disease.
• 80% of type II diabetes related to obesity
• 70% of Cardiovascular disease related to obesity
• 42% breast and colon cancer diagnosed among obese individuals
• 30% of gall bladder surgery related to obesity
• 26% of obese people having high blood pressure

2010 Total medical cost due to obesity related conditions: $347 billion dollars
On the average, a obese person misses an additional 6 work days a year due to obesity related illnesses.

What does that cost as the employers?

- Workdays lost: $39.3 Million
- Physician office visits: $62.7 Million
- Restricted Activity days: $29.9 Million
- Bed-Related days: $89.5 Million
Defining Overweight and Obesity

- Overweight and obesity are both labels for ranges of weight that are greater than what is generally considered healthy for a given height. The terms also identify ranges of weight that have been shown to increase the likelihood of certain diseases and other health problems.

Definitions for Adults

- For adults, overweight and obesity ranges are determined by using weight and height to calculate a number called the "body mass index" (BMI). BMI is used because, for most people, it correlates with their amount of body fat.
**Categories of Weight**

<table>
<thead>
<tr>
<th>Normal</th>
<th>Overweight</th>
<th>Obese</th>
<th>Severely Obese</th>
<th>Morbidly Obese</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMI 18.5 – 24.9</td>
<td>BMI 25 – 29.9</td>
<td>BMI 30 – 34.9</td>
<td>BMI 35 – 39.9</td>
<td>BMI ≥ 40</td>
</tr>
</tbody>
</table>

**OBESITY**

Body Mass Index (BMI)

\[ \text{BMI} = \frac{\text{weight (kg)}}{\text{height}^2 \text{ (m)}} \]

<table>
<thead>
<tr>
<th>BMI</th>
<th>NIH Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;18.5</td>
<td>Underweight</td>
</tr>
<tr>
<td>18.5-24.9</td>
<td>Normal Weight</td>
</tr>
<tr>
<td>25-29.9</td>
<td>Overweight</td>
</tr>
<tr>
<td>30-34.9</td>
<td>Obesity I</td>
</tr>
<tr>
<td>35-39.9</td>
<td>Obesity II</td>
</tr>
<tr>
<td>&gt;40</td>
<td>Extreme Obesity</td>
</tr>
</tbody>
</table>
Obesity.
How did we get on this path?
WEIGHT MANAGEMENT IS A COMPLEX PROBLEM

- Genetic
- Metabolic
- Physiologic
- Cultural
- Social
- Behavioral
CAUSES OF OBESITY

CALORIES IN

CALORIES OUT
In the last 20 years, portion sizes in the United States have doubled.

Latest statics show that people in the US consume more fast food than other countries.

In 2004, in response to OTSG proclamation that obesity had reached ‘epidemic’ proportions, US independent filmmaker, Morgan Spurlock, document an experiment and released the documentary ‘Super Size Me’.
In the documentary, Surplock, a male of average weight and health status, consumed all three of his daily meals from McDonalds for 30 days.

Spurlock has specific rules governing his eating habits:

- He must fully eat three McDonald's meals per day: **breakfast**, **lunch**, and **dinner**.
- He must consume every item on the McDonald's menu at least once over the course of the 30 days (he managed this in nine days).
He must only ingest items that are offered on the McDonald's menu, including bottled water. All outside consumption of food is prohibited.

He must Super Size the meal when offered, but only when offered (i.e., he is not able to Super Size by his own accord).

He will attempt to walk about as much as a typical U.S. citizen, based on a suggested figure of 5,000 standardized distance steps per day.
As a result, the then-32-year-old Spurlock gained 24½ lbs. (11.1 kg), a 13% body mass increase, a **cholesterol** level of 230, and experienced **mood swings**, **sexual dysfunction**, and fat accumulation in his liver. It took Spurlock fourteen months to lose the weight gained from his experiment using a **vegan** diet supervised by a chef who specializes in gourmet vegan dishes.
Percent of adults 18 years of age and over who met the Physical Activity Guidelines for aerobic physical activity: 46.9% (2010)

Percent of adults 18 years of age and over who met the Physical Activity Guidelines for muscle-strengthening physical activity: 24.0% (2010)

Percent of adults 18 years of age and over who met the Physical Activity Guidelines for both aerobic and muscle-strengthening physical activity: 20.4% (2010)

More than 80 percent of adults do not meet the guidelines for both aerobic and muscle-strengthening activities. Similarly, more than 80 percent of adolescents do not do enough aerobic physical activity to meet the guidelines for youth.
BAGEL

20 Years Ago

140 calories
3-inch diameter

Today

350 calories
6-inch diameter

Calorie Difference: 210 calories
Maintaining a Healthy Weight is a Balancing Act

Calories In = Calories Out

How long will you have to rake leaves in order to burn the extra 210 calories?*

*Based on 130-pound person
If you rake the leaves for 50 minutes you will burn the extra 210 calories.*

*Based on 130-pound person
20 Years Ago
Coffee
(with whole milk and sugar)

45 calories
8 OZ

Today
Mocha Coffee
(with steamed whole milk and mocha syrup)

350 calories
16 OZ

Calorie Difference: 305 calories
Maintaining a Healthy Weight is a Balancing Act
Calories In = Calories Out

How long will you have to walk in order to burn those extra 305 calories?*

*Based on 130-pound person
Calories In = Calories Out

If you walk 1 hour and 20 minutes, you will burn approximately 305 calories.*

*Based on 130-pound person
On the average, to lose weight, one must burn 500 more calories than they consume daily.
CAUSES OF OBESITY - GENETICS
CAUSES OF OBESITY - ENVIRONMENTAL
**McDonalds Calorie Costs**

- Big Mac: 540 Kcal
- Large Fries: 570 Kcal
- 32 oz Coke: 310 Kcal

**Total Calories: 1420**

*The average 70 Kg (154 pound) moderately active man requires 2100 kcal/daily (3 meals)*

Dessert anyone?

- 340 Kcal
- 250 Kcal
- 510 Kcal
- Premium Southwest Salad with Grilled Chicken  290 Cal
  (no dressing included)
- Snack Size Fruit & Walnuts  210 Cal
- Mango Pineapple Smoothie  350 Cal

Meal Total: 850 Calories
Calupa (Chicken), 2 |
Taco, 1 |
Diet Pepsi, Large |

Total Calories: 970 calories
- French Onion with Croutons: 180 Cal
- Half Italian Combo with Ham on Ciabatta Bread: 490 Cal
- Apple: 80 Cal
- Raspberry Ice Tea: 190 Cal

Meal Total: 940 calories
Other Obesity Related Health Issues:
- High Cholesterol
- Coronary Artery Disease
- Congestive Heart Failure
- Stroke
- Gallstones
- Gout
- Osteoarthritis
- Pregnancy complications
- Irregular periods
- Infertility
- Bladder Control issues
- Kidney Stones
- Psychological Disorders
- Eating Disorders
- Low self-esteem
BREAKING THE CYCLE OF OBESITY

Empowering Wellness
Tool #1: Education. Educate yourself about obesity, weight loss, weight loss options and health related issues. Be proactive! It is your health, and your life, be your own expert!

Tool #2: Nutrition. Healthy eating habits are a lifetime choice. We are what we eat. Make healthy, smarter choices.

Tool #3: Exercise. Get moving! Start slowly, and work within your physical limitations. Set your goal, and move towards it! Walking, biking, hiking, bowling..you should participate in physical activity at least 30 minutes a day, 5 times a week.

Tool #4: Bariatric Weight Loss Surgery.
Bariatric surgery improves quality of life

Has emotional and social benefits

Is an effective weight loss tool when used in combination with proper nutrition, exercise and routine follow-up

Benefits of Bariatric Surgery can outweigh:
- Risk of surgery
- Risks of remaining morbidly obese
IT FEELS GOOD TO BE HEALTHY, IT IS ABOUT IMPROVING THE QUALITY OF YOUR LIFE.
IMPROVED CO-MORBIDITIES

**Migraines**
57% resolved

**Pseudotumor Cerebri**
96% resolved

**Dyslipidemia**
Hypercholesterolemia
63% resolved

**Non-Alcoholic Fatty Liver Disease**
90% improved steatosis
37% resolution of inflammation
20% resolution of fibrosis

**Metabolic Syndrome**
80% resolved

**Type II Diabetes Mellitus**
83% resolved

**Polycystic Ovarian Syndrome**
79% resolution of hirsutism
100% resolution of menstrual dysfunction

**Venous Stasis Disease**
95% resolved

**Depression**
55% resolved

**Obstructive Sleep Apnea**
74-98% resolved

**Asthma**
82% improved or resolved

**Cardiovascular Disease**
82% risk reduction

**Hypertension**
52-92% resolved

**GERD**
72-98% resolved

**Stress Urinary Incontinence**
44-88% resolved

**Degenerative Joint Disease**
41-76% resolved

**Gout**
77% resolved

**Quality of Life**
improved in 95% of patients

**Mortality**
89% reduction in 5-year mortality
1954 Jejuno-Ileal Bypass

re-routing a small upper portion of the intestine to the lower portion, bypass a large portion to decrease absorption.

1963 Jejuno-colic Shunt

taking the bypass portion further down with the idea of bypassing an even larger portion of the intestine.

These procedures resulted in massive complication such as diarrhea, dehydration and electrolyte imbalances.
Bariatric Surgery, Next Phase

- 1967 Gastric Bypass, developed by Dr. Edward Mason, University of Iowa
  Now considered the ‘Gold Standard of Bariatric Surgery’
- 1982 Gastroplasty, the beginning for restrictive procedures we see now should as the Sleeve Gastrectomy
- 1990 Gastric Band, first banding system approved by the FDA in 2001 was Allergan’s LAP-Band. The latest band on the market is the Realize Band, which obtained FDA approval in 2007
Procedures continue to develop and re-define. Currently in the research clinic environment are additional procedures such as Gastric Pacing and the Gastric Balloon, several years from approval, and not accepted for American College of Surgeons, and American Society of Metabolic and Bariatric Surgeons.
Bariatric Surgical Treatment Options at Ireland

- LAP-BAND®
- Sleeve Gastrectomy
LAP-BAND
ADJUSTABLE GASTRIC BANDING

Small Stomach Pouch
Gastric Band
Larger Stomach Portion
Port

Lap Band VG – No added fluid

Lap Band VG – 5 ml saline added
LAP-BAND

- Helps lose weight by reducing how much the stomach can hold
- Less invasive than other surgical procedures
- Band can be adjusted
- Process can be reversed
- LAP-BAND can be placed laparoscopically
May be a good option for selected patients

Purely restrictive procedure

Decreased absorption of vitamins and minerals should be minimal compared to the RYGB

May be converted to a RYGB at a later time
At the 3 year post-operative mark, the weight loss data is consistently the same for both procedures per national data.

- 50-60% of excess body weight

- Weight loss, and weight gain is patient specific
BMI of 40 or greater
Or
BMI of 35-40 with significant co-morbidities, and documented medically supervised dietary attempts unsuccessful.

National Institute of Health
NIH Consensus Conference
(NIH is the nation’s Medical Research Agency)
BARIATRIC SURGERY CRITERIA

- Meets NIH criteria
- No endocrine or metabolic cause of obesity
- No drug or alcohol dependencies
- No uncontrolled or untreated psychological disorders
- Surgery candidates cannot be younger than 18 years of age, nor older than 60 years of age
- Ireland Army Community Hospital will not perform bariatric surgery on any patient above 400 pounds regardless of BMI
RISKS OF BARIATRIC SURGERY
Leading Causes of Death in Bariatric Surgery

Cardiac Complications

Sepsis, a severe bacterial infection resulting from an anastomotic or suture line leak

Pulmonary Embolus

Mortality Rate 2008
Total Cases 68,868 Inpatient Mortality 43 = 0.062%  
* HealthGrades Fifth Annual Bariatric Surgery Trends in American Hospitals Study May 2010
Rare

Inadequate counseling, and lack of understanding of education

Inadequate follow-up

Patient non-compliance
NUTRITIONAL RISKS

- Protein malnutrition

- Vitamin deficiencies
  - B12, B1, B6, Folate, Vitamins A, D, E, K

- Mineral deficiencies
  - Calcium, Magnesium, Iron, Zinc, Copper and others

- Nutritional deficiencies can have severe consequences
Depression

Bulimia

Anorexia

Changes in family dynamics, and social interactions.
IT’S A NEW LIFE, LIVE IT WELL
Weight-loss goals can mean the difference between success and failure.

Realistic, well-planned weight-loss goals keep you focused and motivated. They provide a plan for change as you think about and transition into your healthy lifestyle.
Personalize your goals.

- Consider your capabilities, access your limitations
- Consider your personal fitness level or health concerns
- What is your available time and motivation?
Aim for realistic weight loss

- Healthy weight loss occurs slowly

- Plan to lose 1-2 pounds per week

- You need to burn 500-1000 calories more a day than you consume
Referral from your Primary Care Manager is required
Prior to seeing your surgeon...
Lab work will be ordered
Complete Medical History

Surgeon will order a psychological Evaluation
Your surgeon may also order...
a chest x-ray
Upper GI (barium swallow) or upper endoscopy is generally performed
Ultrasound of liver/gallbladder, if indicated

You will also see an Internal Medicine Provider, Dietitian, and the Bariatric Nurse Coordinator
You will also attend an Education Seminar, where you will meet with a Respiratory Therapist and a Physical Therapist, also members of your bariatric team.

Your participation in the Support Groups are essential to your success.

After all of your tests and consults are complete, you will be scheduled to see the surgeon for your surgery scheduling appointment if indicated.
OUR COMMITMENT TO YOU

- To provide you with the education necessary to make an informed decision as to if bariatric surgery is for you.
- To guide and support you through the process necessary for you to make these lifelong changes.
- To provide you with the tools to be successful in your weight loss journey.
More than anything else, success of this surgery requires a great commitment on your part. 

*Surgery is merely a tool*

Continued diet and exercise regimen

Continued follow-up and health maintenance

Lifelong need for vitamin and mineral supplements, as well as possible other nutritional supplements
There is NO Exceptional Family Member Program for Bariatric Surgery.
The Bariatric Surgeons at Ireland Army Community Hospital will not perform bariatric surgery on any person who smokes. Patients must be smoke free 30 days prior to surgery. Smoking has been linked to surgical complications, and also to Lap-band Complications. Please ask your PCM for a referral for the smoking cessation program available through the Health and Wellness Center.
Bariatric Support Groups will be held the 2\textsuperscript{nd} Tuesday of every month
MEDDAC Classroom,
1\textsuperscript{st} floor of Ireland Army Community Hospital
6:00 - 7:00
We will need a letter from the sponsor’s command with an anticipated ETS/PCS dates.

All bariatric surgery patients must live in the Fort Knox area for a minimum of six (6) months after surgery.
RECOMMENDED READING

Living & Eating Well After Weight Loss Surgery

The Success Habits of Weight-Loss Surgery Patients

Weight Loss Surgery For Dummies

“A Reference for the Rest of Us!”
Questions?
Call 502.624.0624

It's a new life, live it well!
Dear Patient,

Thank you for reviewing the Bariatric Surgery Introductory Seminar Presentation.

Please print a the Certificate of Completion, it will need to be turned to the Bariatric Nurse Coordinator during your initial evaluation appointment.

We are here to guide you through this process, please call our clinic with questions or concerns. 502-624-0624.

Respectfully,
The Bariatric Surgery Team
Certificate of Completion

The Bariatric Surgery Program
of Ireland Army Community Hospital

The Bariatric Surgery Introductory Seminar Presentation

Name: ____________________________

Date of Completion: ____________________________

__________________________

Patient's Signature

__________________________

Date

__________________________

Bariatric Nurse Coordinators Signature

__________________________

Date