



**FACT SHEET**

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**METABOLIC AND BARIATRIC SURGERY**

**SAFETY AND RISKS**

- Federal Agency for Healthcare Research and Quality (AHRQ)<sup>12</sup> and recent clinical studies report significant improvements in metabolic and bariatric surgery safety
  - Primary reasons for improved safety include increased use of laparoscopy,<sup>6</sup> advancements in surgical techniques,<sup>13</sup> and establishment of ASMBS and American College of Surgeons (ACS) accreditation programs
  - Laparoscopic bariatric operations increased from 20.1% in 2003 to 90.2% in 2008<sup>7</sup>
- Overall likelihood of major complications is about 2.5%. Individual complication rates include:<sup>5,6</sup>
  - Gastric bypass – 3.6%
  - Sleeve gastrectomy – 2.2%
  - Adjustable gastric band – 0.9%
- Overall mortality rate is about 0.1%, Individual complication rates include:<sup>7,14</sup>
  - Gastric bypass – 0.1%
  - Sleeve gastrectomy – 0.19%
  - Adjustable gastric band – 0.02%
- Clinical evidence shows risks of morbid obesity outweigh risks of metabolic and bariatric surgery<sup>15,16</sup>
  - Individuals with morbid obesity or BMI≥30 have a 50-100% increased risk of premature death compared to individuals of healthy weight<sup>17</sup>
- Studies show metabolic and bariatric surgery increases life span<sup>18,19</sup>
  - Gastric bypass patients may improve life expectancy by 89%
  - Patients may reduce risk of premature death by 30-40%

<b>OVERVIEW</b>
<ul style="list-style-type: none"> <li>• Metabolic and bariatric surgery results in significant weight loss and helps prevent, improve or resolve more than 40 obesity-related diseases or conditions including Type 2 diabetes, heart disease and certain cancers<sup>1,2,3</sup></li> <li>• Patients may lose as much as 60% of excess weight six months after surgery, and 77% of excess weight as early as 12 months after surgery<sup>4</sup></li> <li>• Clinical studies demonstrate significant improvements in safety,<sup>5,6</sup> showing risk of death from metabolic and bariatric surgery is about 0.1%,<sup>7</sup> which is less than gallbladder (0.7%) and hip replacement (0.93%) surgery<sup>8,9</sup></li> <li>• In the U.S., approximately 150,000 to 160,000 adults had metabolic and bariatric surgery in 2010, which is about 1% of the surgically eligible population<sup>10</sup></li> <li>• Estimates suggest, third-party payers will recover metabolic and bariatric surgery costs within 2-4 years after surgery, as a result of the reductions in costs associated with treating obesity-related conditions<sup>11</sup></li> </ul>

**EFFECTIVENESS**

- Studies show patients typically lose the most weight 1-2 years after surgery, and maintain substantial weight loss with improvements in obesity related conditions<sup>20</sup>
  - Patients may lose as much as 60% of excess weight six months after surgery, and 77% of excess weight as early as 12 months after surgery<sup>4</sup>
  - On average, 5 years after surgery patients maintain 50% of their excess weight loss<sup>19</sup>

**METABOLIC AND BARIATRIC SURGERY IMPACT ON MORTALITY**

- Metabolic and bariatric surgery help to improve or resolve more than 40 obesity-related diseases and conditions,<sup>3</sup> including Type 2 diabetes, heart disease, certain cancers, sleep apnea, GERD, high blood pressure, high cholesterol, sleep apnea and joint problems<sup>21,22,23</sup>
  - 60% reduction in mortality from cancer, with the largest reductions seen in breast and colon cancers<sup>19,24</sup>
  - 56% reduction in mortality from coronary artery disease
  - 92% reduction in mortality from Type 2 diabetes
  - 40% overall reduction in mortality in gastric bypass patients<sup>19</sup>

**MEDICAL OUTCOMES OF BARIATRIC SURGERY**

Condition/Disease	% Resolved or Improved	% Resolved <sup>25</sup>
Type 2 Diabetes	86	76.8
Hypertension	78.5	61.7
Obstructive Sleep Apnea	85.7	83.6
Hyperlipidemia	78.5	61.7

**LAPAROSCOPIC GASTRIC BYPASS**

- Stomach reduced to size of walnut and then attached to middle of small intestine, bypassing a section of the small intestine (duodenum and jejunum) limiting absorption of calories
- Risks include allergic reactions to medicines, blood clots in the legs, blood loss, breathing problems, heart attack or stroke during or after surgery, and infection<sup>24</sup>

**LAPAROSCOPIC ADJUSTABLE GASTRIC BAND (LAGB)**

- Adjustable silicone band filled with saline wrapped around upper part of stomach, creating small pouch that restricts food intake
- Risks include the gastric band eroding through the stomach, the gastric band slipping partly out of place, gastritis, heartburn, stomach ulcers, infection in the port, injury to the stomach, intestines, or other organs during surgery, poor nutrition, and scarring inside the belly<sup>23</sup>

**SLEEVE GASTRECTOMY**

- Stomach divided and stapled vertically, removing more than 85%, creating tube or banana-shaped pouch restricting amount of food that can be consumed and absorbed by the body
- Risks include gastritis, heartburn, stomach ulcers, injury to the stomach, intestines, or other organs during surgery, leaking from the line where parts of the stomach have been stapled together, poor nutrition, scarring inside the belly that could lead to a future blockage in the bowel, and vomiting<sup>25</sup>

## ECONOMICS OF BARIATRIC SURGERY

- Metabolic and bariatric surgery approximately costs between \$11,500 and \$26,000<sup>26</sup>
- On average, health care costs for morbidly obese patients were reduced by 29% within 5 years following bariatric surgery, due to the reduction or elimination of obesity-related conditions<sup>27</sup>
- Estimates suggest, third-party payers will recover metabolic and bariatric surgery costs within 2-4 years following a patient's procedure, as a result of the reduction in costs associated with treating obesity-related conditions<sup>28</sup>
- According to expert analysis, surgical treatment of morbid obesity results in individual worker productivity gain of \$2,765 per year for U.S. employers<sup>29</sup>

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