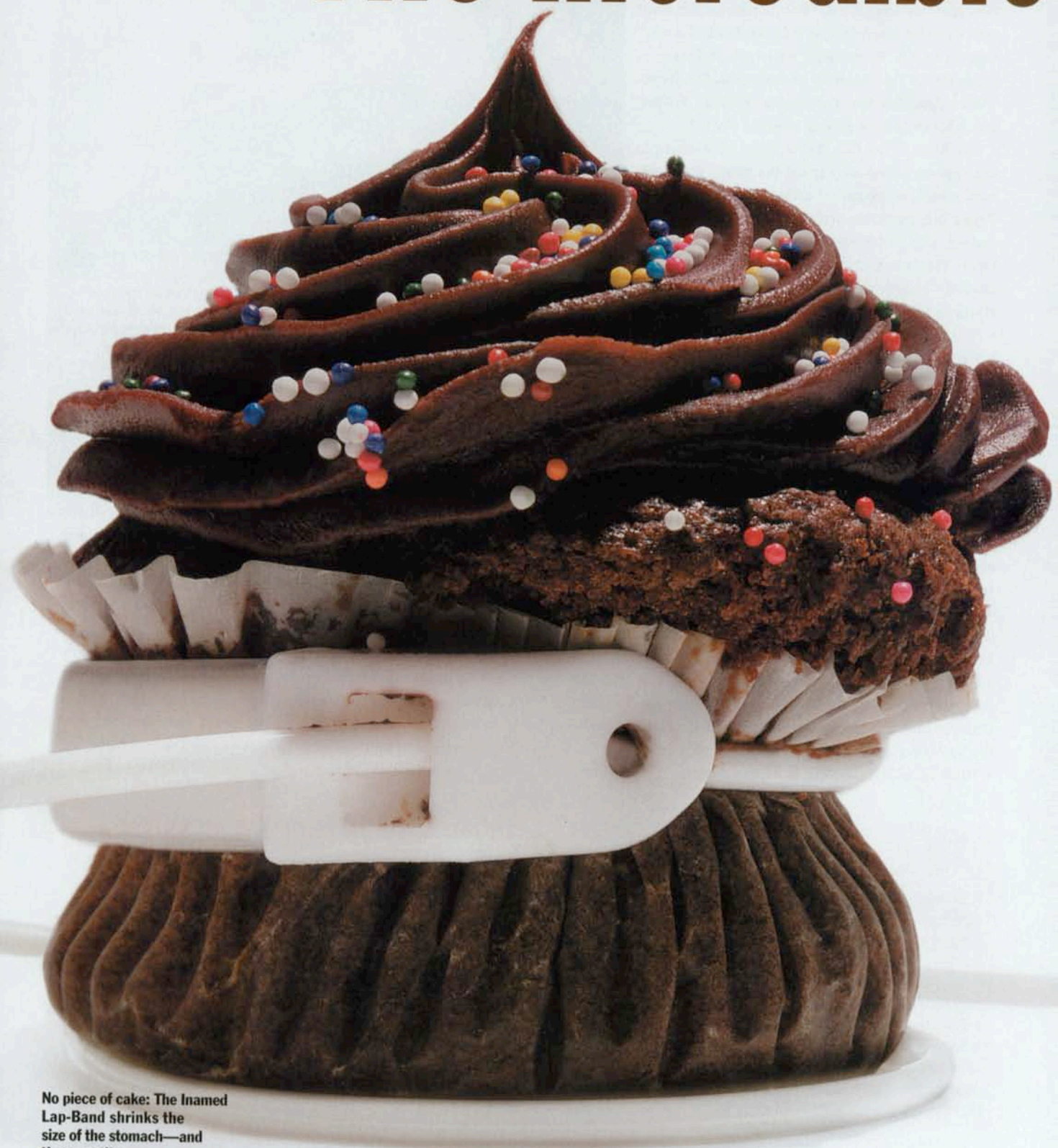




The following article appeared in the February 2004 issue of Allure Magazine.

The Incredible



No piece of cake: The Inamed Lap-Band shrinks the size of the stomach—and the appetite.

PHOTOGRAPHED BY ILAN RUBIN

Shrinking Stomach

Weight-loss surgery offers jaw-dropping results—but it also carries serious risks. And these procedures have never been more popular. By Hallie Levine

They make Atkins and the Zone look like a day at South Beach. And even though some doctors consider stomach surgeries a risky last resort, more and more people—most of them women—are taking this radical step to lose enormous amounts of weight.

The number of people having these surgeries has increased over the past decade from 17,000 to more than 100,000, according to the American Society of Bariatric Surgeons. Meanwhile, those who want to drop less than 100 pounds are turning to unorthodox but promising new

drugs and even certain injections that seem to diminish hunger and curtail cravings.

These drastic measures used to be reserved for the middle-aged and morbidly obese. Now, though, “younger and younger women are flooding my offices—the majority of them in their 30s,” says Elliot Goodman, chief of bariatric surgery at the Beth Israel Medical Center in New York City. In a somewhat perverse twist, a number of patients actually set out to *gain* weight in order to qualify for the surgery. It all makes counting calories and fat grams seem as antiquated as the abacus.



GASTRIC BYPASS

WHAT IT IS: Surgery to reduce the amount of food the stomach will hold and the digestive tract will absorb. The doctor, often working laparoscopically, staples the stomach to make a one-ounce pouch, then cuts the small intestine and sews part of it directly onto the new, tinier stomach, circumventing about 30 percent of the intestines and reducing the calories digested, explains Mitchell Roslin, chief of bariatric surgery at New York City's Lenox Hill Hospital. The procedure requires general anesthesia and two days of hospitalization, and patients stay on a liquid diet for about three weeks.

IDEAL CANDIDATES: People who have been unsuccessful at calorie- or fat-restricted diets and have a body mass index (BMI) of 40 (at least 100 pounds overweight) or have a BMI of 35 with disease (like diabetes). Overeating is difficult with gastric bypass: Certain foods like sugar or fats cause "dumping syndrome," meaning they trigger a release of gastrointestinal hormones that result in nausea, sweating, light-headedness, and diarrhea.

THE RESULTS: Patients lose about 70 percent of their excess body weight in two years; 70 percent of that is still off five years after the procedure.

THE RISKS: The overall rate of complications is about 29 percent. Most of these are relatively minor, like respiratory illnesses such as pneumonia and wound infections. A recent study found that some patients develop gallstones after surgery. The risk of serious complications, such as stomach bleeding or blood clots, is about 2 to 5 percent. There's a .5 percent (or 1 in 200) chance of dying from these complications during or immediately after surgery, according to research by Christine Ren, assistant professor of surgery at the New York University School of Medicine. Because gastric bypass prevents the body from absorbing certain nutrients, patients must take daily multivitamins to prevent anemia and osteoporosis.

THE PRICE: Up to \$40,000 total, usually covered by insurance for people with a BMI of 40 or greater or a BMI over 35 with other severe health problems such as diabetes.



Portion control: After weight-loss surgery, the stomach can hold only small amounts of food.

LAP-BAND

WHAT IT IS: Surgery that places an inflatable silicone band around the upper part of the stomach to restrict the amount of food it can hold. "This also increases the time it takes for the stomach to empty, so patients feel fuller longer," Ren explains. With the patient under general anesthesia, the surgeon inserts the band laparoscopically and wraps it around the upper part of the stomach, "almost like a wristwatch," Ren says. The band is gradually inflated with saline over two years. For about a week after surgery, patients are able to sip only liquids, then they move to soft food for another two. "Even after you start eating solid food, you have to chew it thoroughly," says Lori Karp, a 32-year-old mother in Philadelphia who had the surgery last March. Patients are usually back at work within five days.

IDEAL CANDIDATES: People who want to lose 100 to 150 pounds and are willing to follow a strict diet and exercise program. Once the lap-band is in place, it's still possible to overeat and gain weight, since liquids slip through the band.

THE RESULTS: Studies vary, but patients generally lose just over 50 percent of their excess body weight in two years

and around 57 percent of it at five years. Karp, for example, has lost 70 pounds in eight months. "The procedure seems to have more success in Europe and Australia, but that may be because those countries have very different eating habits," says Alan Wittgrove, director of the Alvarado Center for Surgical Weight Loss in San Diego. "Americans snack more—so they end up grazing all day with the lap-band and not losing as much weight." The noncompliance rate is also relatively high. "After about three years, 75 percent of my patients stopped returning [to have the band tightened] and 64 percent gained some of their weight back," says J.K. Champion, director of bariatric surgery for the Emory-Dunwoody Medical Center in Atlanta.

THE RISKS: It has close to a zero mortality rate and a 10 percent rate of complications, .23 percent of which are life-threatening, such as blood clots. "You're not cutting or stapling the stomach or intestines, the things that cause serious problems such as internal bleeding," says Jeff Allen, assistant professor of surgery at the University of Louisville in Kentucky. Minor complications include wound or respiratory infections. Doctors estimate that between 5 and 30 percent

of patients have their lap-bands removed within three to five years.

THE PRICE: About \$25,000, but some insurance companies don't cover the lap-band procedure.

DUODENAL SWITCH

WHAT IT IS: Practiced by only about 5 percent of all bariatric surgeons, this reduces the amount of food the stomach can hold but also circumvents even more of the digestive tract than gastric bypass. Like the other procedures, it requires general anesthesia but is usually performed in open surgery instead of laparoscopically. The surgeon removes two thirds of the stomach, leaving a small pouch, and bypasses about 75 percent of the small intestine. Patients are hospitalized for about five days and are unable to eat solid foods for at least three weeks.

IDEAL CANDIDATES: Only people who need to lose 200 to 300 pounds consider this surgery, because less is known about the long-term effects of the food malabsorption. "People who eat fatty foods do well, because fats are not absorbed," Roslin says. "Sweet and carbohydrate eaters won't have as much success" because carbohydrates begin to be broken down by enzymes in saliva.

THE RESULTS: Patients lose about 80 percent of their excess weight in two years.

THE RISKS: The overall complication rate is about 27 percent, including minor wound or respiratory infections. The risk of major complications like intestinal twisting, blood clots, or internal bleeding is about 5 percent, and the risk of death when they occur is .5 percent. Patients must take as many as 12 vitamin and mineral supplements a day and still may suffer nutritional deficiencies. The surgery cannot be completely reversed, and some doctors hesitate to recommend it for women who want to become pregnant.

THE PRICE: About \$50,000, sometimes covered by insurance for the morbidly obese.

WEIGHT-LOSS DRUGS

For decades, scientists have searched for a miracle pill for weight loss, but the drugs they developed were either dangerous (like fenfluramine) or disappointing. "The three drugs currently on

the market—phentermine, Meridia, and Xenical—have only modest success rates," says Louis Aronne, an obesity specialist at the New York Presbyterian Hospital Weill-Cornell Medical School. Some of the most promising medications were designed for problems other than being overweight.

• **TOPAMAX AND ZONEGRAN.** These prescription drugs, which each treat both epilepsy and migraines, were found to have weight-loss potential when patients started shedding pounds. One theory is that they affect brain chemicals that control hunger and food cravings. "These drugs seem to be extremely effective in binge eaters who constantly think about food," Aronne says. Topamax has been nicknamed "Dopemax" because of the way it seems to dull concentration and memory in some people if the dose is increased too quickly (the company is working on a timed-release version to reduce this problem). Zonigran's side effects are milder, though some takers report fatigue.

• **METFORMIN.** The diabetes drug Metformin, which helps lower insulin levels, is now prescribed for overweight people who aren't diabetic but may have ele-

vated insulin levels. "The theory is that it keeps insulin levels stable and helps regulate hunger," explains Harriette Mogul, an endocrinologist at New York Medical College in Valhalla, New York. She found that about 86 percent of the women who took Metformin while on a reduced-carbohydrate diet reached their goal weight (from 15 to 40 pounds lighter) within a year, and close to 90 percent kept the weight off four years later. Side effects, although rare, include nausea and diarrhea.

• **RIMONABANT.** This pill, which is also being studied as a way to help smokers quit and is not yet FDA-approved, blocks chemicals in the brain that stimulate the appetite. Clinical trials show an average weight loss of about 16 pounds after 16 weeks with no imposed diet or exercise modifications. Its side effects include nausea and diarrhea.

• **AXOKINE.** By mimicking leptin, a weight-controlling hormone produced naturally in the body, Axokine caused a third of patients to lose an average of 10 percent of their body weight, or about 30 pounds. The drug is not yet FDA-approved; side effects include nausea and coughing. ♦

The Next Frontiers

These new ways to fight obesity are still strictly experimental.

• **Gastric pacemaker.** A device like a cardiac pacemaker is attached to the walls of the stomach under local anesthesia. "It appears to reduce feelings of hunger, possibly by altering nerve endings or causing changes in digestive hormones," says Champion. Of 30 obese patients with a stomach pacemaker, two thirds lost around 18 percent of their excess body weight, according to lead researcher Scott Shikora, director of the Center for Minimally Invasive Obesity Surgery at Tufts-New England Medical Center. Researchers believe this could be an alternative to drugs for those who want to shed 50 or 60 pounds.

• **Botox.** Botulinum toxin, a protein that relaxes muscles, is being investigated for weight-loss potential when injected in the stomach. "Botox causes the abdominal muscles to relax, so food doesn't get pushed out as quickly," says Los Angeles plastic surgeon Simon Ourian. This seems

to prolong the sensation of fullness after eating. In a preliminary study in the *Annals of Internal Medicine*, a 220-pound man who received the injections lost 20 pounds after four months. But many experts are skeptical. And Allergan, Botox's manufacturer, has no immediate plans to study Botox for weight loss.

• **Hormones.** Ordinarily released from the gastrointestinal tract after eating, the hormone PYY3-36 appears to curb the appetite. When 12 volunteers at the Imperial College London were injected with the hormone, their average caloric intake dropped by a third over the next 24 hours, and their hunger diminished by 40 percent.

Another hormone produced in the stomach, ghrelin, may sabotage weight-loss efforts by sending hunger messages to the brain. "Researchers are looking for ways to develop a drug that lowers the body's ghrelin levels because, theoretically, that would shut off the demand to eat," Aronne says. "I predict, in about five to ten years, you'll see an avalanche of these new diet drugs."