

YOU'VE SEEN them on the streets. Huge human beings, rolls of fat enclosed in oversized clothing. They weigh 250 pounds, 300 pounds,

even 400 pounds. Sometimes they elicit hurtful smirks from others.

Louise Greenblatt, 57, of Manhattan, weighs 267 pounds. "People in restaurants stare at me in the rudest possible way," she says. "It makes me feel just horrible."

Our national obsession with weight is such that in May a hoaxer easily fooled several reporters for radio, TV, newspapers and wire services when he said he'd formed a "fat squad" whose agents purportedly were hired to trail dieters and keep them honest.

Doctors define as "morbidly obese" individuals whose weight reaches 100 pounds more than the average listed by insurance tables for their size and age. Morbidly obese people fall prey to sudden death from heart attack, to stroke and to high blood pressure, diabetes, arthritis, kidney disease, swollen ankles, infection and sleep apnea, a condition in which they stop breathing during sleep. Sleep apnea can trigger heart arrest or leave victims so tired they can't stay awake during the day.

But more than the physical risk, the morbidly obese often become social cripples: Some employers won't hire them; they find travel difficult (seats are too small); they don't visit friends and relatives, fearing they'll sit on furniture and break it.

Almost all of these too-too fat people have tried to diet to lose those killer pounds, but few have succeeded. About 95 percent of those who lose large amounts of weight regain it.

But doctors are making progress against gross, deadly obesity. They have developed surgical procedures to stifle appetite—risky but successful in two out of three morbidly obese patients, depending on the surgery. They also prescribe diets very low in calories—about 400 to 800 a day. Patients on the regimen enjoy a success rate similar to that of the surgery, but this also is risky and the relapse rate is higher.

Doctors have other new drugs and techniques now under intensive study:

continued

Nurse Pamela McCullough, 30, of Richmond, Va., weighed 320 pounds. Since vertical-banded gastroplasty surgery in '82, she lost 150 pounds. "I'm newly engaged," she says. "I'm glad I risked the surgery. I'd do it again."

How Doctors Can Treat Deadly Obesity



B Y E A R L U B E L L

OBESITY/continued

- A balloon that the patient swallows to keep the stomach feeling full.
- Drugs that suppress appetite.
- Drugs that help burn energy.
- Drugs that hinder fat absorption.
- Psychological methods that help overcome the desire to eat.

Most experts contend that the tendency to be fat is inherited. But, says Dr. Theodore Van Itallie, co-director of the Obesity Research Center of St. Luke's/Roosevelt Hospital Center in Manhattan, "Obesity results from a combination of genetics and environment. You have to eat a lot to get fat."

The obese body contains more fat cells—living sacs that make up the fatty flesh—than does the never-obese body. A 400-pound person may have four times more fat cells than does a normal-weight person. And the fat cells are bigger.

The last resort: the knife. Carla DeKok, 29, of Fort Morgan, Colo., tipped the scales at 248 pounds on April 29, 1982. On that day, she went under the surgeon's knife in a last-ditch effort to take off those pounds. At 5 feet 5½ inches, she was almost twice her ideal weight.

Like most obese persons, Carla had failed in all weight-loss attempts. Finally, fearing that his wife's weight could kill her, Dennis DeKok told Carla on their wedding anniversary, "You know what you can give me for our anniversary? Fifty more years. Have the surgery."

Now she weighs 149, down 99 pounds. Her coat size went from 26½ to 14. Infertile before surgery, she has since had two babies. Her stomach capacity shrank from quart-size to the size of a couple of tablespoons. It cannot hold big meals. If Carla tries to overeat, she immediately feels stuffed.

The operation she had is called a vertical-banded gastroplasty. It was developed by Dr. Edward E. Mason, professor of general surgery at the University of Iowa College of Medicine in Iowa City. Dr. Mason creates a small pouch at the opening of the stomach. At the bottom of the pouch, he places a plastic ring so that the exit cannot grow larger. Cost: about \$2350.

Mason estimates that 30,000 persons a year undergo surgery for obesity, most of them having their stomachs "pouched." There is some risk. About one person in 200 dies from the surgery or its complications. Some patients require surgery later to correct problems that result from the pouch.

There is no proof that patients live longer because of such surgery, but they do lose pounds as well as their symptoms of diabetes and high blood pressure. And their arthritis symptoms are relieved, even if their ideal weight is not reached. Overall, most experts consider this surgery only as the last resort.

Testing: new anti-fat pills. All fat

persons dream of taking a pill that will magically cause pounds to melt away. A dozen pharmaceutical companies are working hard to turn that dream into reality—and cash.

"We are trying to design molecules that intervene in the body's regulation of fat storage and food consumption," says Ann C. Sullivan, director of pharmacology and chemotherapy for Hoffmann-La Roche Inc. in Nutley, N.J. The pharmaceutical companies are now testing some of these molecules in human beings. Preliminary results indicate that they might work. The experiments are in their infancy, but promising.

The drugs being tested could help

blood. Several drugs block either fat or carbohydrate absorption.

3. **Stepping up energy expenditure.** Since the obese person's body burns energy very efficiently, it simply uses fewer calories to maintain itself during weight loss. And as the body's fuel-burning system burns less and less energy, weight loss becomes harder and harder. (It also results in the obese person feeling cold while dieting.) To counter this, three drug companies are testing compounds that might increase body-energy use. If successful, they can step up the number of calories burned.

So far, none of the drugs being tested are available. Until they're proved safe



Rick Pisauro, 36, lost 160 pounds in seven months with Optifast liquid diet. He then switched to regular food, took up running and lost 55 more. He weighs 195 today. Says Pisauro: "Family, friends, feeling good, nature, love, running—that's all important now."

you lose weight in three ways:

1. **Appetite suppression.** One stomach hormone, released while eating, has been found to mildly suppress the appetite. But so far, an increased supply can be given by injection only.

Another group of drugs acts on a brain chemical called serotonin. Preliminary tests on obese patients resulted in weight loss.

Naloxone, a drug used to treat heroin users, blocks the brain's reaction to opium products. Tests show it also has some effect in suppressing the appetite of persons who do not use such narcotics.

2. **Fat and carbohydrate absorption.** Fat forms if the digestive system sends an excess of fats and sugars into the

and marketed, you'll have to lose weight without the aid of anti-fat pills.

You can starve yourself thin. In a sense, it is easy to lose weight by fasting because, after about five days, you no longer have an appetite. There's only one problem: *Fasting can kill you.* Fasting kills by thinning the muscle of the heart or by upsetting the mineral balance in the blood. No one can predict if the lethal effects will strike you.

Yet eating a small amount of high-protein food plus mineral supplements spares the heart and keeps the blood well-supplied with minerals.

Rick Pisauro, 36, of Columbus, Ohio, is a photographer. He dropped 160 pounds (from 410) in seven months by eating

420 calories a day of Optifast, a high-protein-and-glucose liquid made primarily of eggs and milk with vitamins and minerals. After switching to regular food, he began a running regimen, lost 55 pounds more and weighs 195. "Life is more exciting now," says Pisauro.

Drs. Victor Vertes and Saul Genuth, professors of medicine at Case Western Reserve Medical School in Cleveland, developed Optifast. Their program costs \$35 a week for the liquid, plus doctors' fees. Nationally, 150,000 patients have tried the Optifast program, which includes exercise training, instruction for transferring to regular food and behavior modification to form new eating habits. Patients must be at least 30 percent above their ideal weight to enter the program.

Dr. Vertes reports that 80 percent of all patients stick with the program. After a year, about a third regain most of their weight, a third gain back half of what they lost and a third stay within 10 pounds of their lowest weight.

Dr. Thomas A. Wadden, assistant professor of psychology at the University of Pennsylvania School of Medicine in Philadelphia, has helped the morbidly obese lose weight with behavior modification alone. One patient, Joan Wozniak, 58, of Stratford, N.J., lost 50 pounds by keeping a food diary, exercising and following Wadden's psychological tips.

A balloon in the stomach. The balloon, attached to a retractable fiberoptic tube, is inserted down the throat into the stomach. It is then inflated. A rubberlike cylinder measuring 2 inches round by 3½ inches long, the device floats on food in the stomach and pushes against the stomach's upper wall, producing a sense of fullness. It is replaced after four months, and its use currently is limited to eight consecutive months.

Drs. Lloyd and Mary Garren of Elkton, Md., developed the balloon, tested it in three hospitals and ultimately got the Food and Drug Administration's approval for its use. They report: "Patients using the balloon for an average of six months lost an average of 43 pounds. Seven months later, they'd held their weight within 10 pounds."

Joanne Sczubelek, 37, of Newcastle, Del., lost 103 pounds between May 1985 and July 1986 with the help of the balloon, and she plans to lose 55 more. After inserting the device, the Garrens also gave Mrs. Sczubelek diet therapy and behavioral-modification training. The cost: \$2000 to \$4000 for four months.

The Garrens report some side effects. One or two patients in 100 developed stomach ulcers, which stopped when the balloon was made smaller. Some balloons became stuck in the intestines and were removed surgically.

If this method fulfills its promise, it could be the most important treatment of morbid obesity since stomach surgery, which it could replace.