

# Obesity & Cancer

*By Sherman C. Smith, MD, FACS*

The negative effects of obesity on good health have long been appreciated, and the list of medical conditions associated with obesity is lengthy. It is not surprising that many types of cancer seem to be associated with the problem of obesity.

## **How Does Obesity Affect Cancer?**

Perhaps one of the most comprehensive studies of the cancer risk faced by the obese comes from the American Cancer Society.<sup>1</sup> Nearly 900,000 men and women were enrolled cancer-free in 1982, and then they were followed for 16 years. Compared to normal weight subjects, men with a body mass index (BMI) greater than 40 were found to have a 52 percent increase in risk of losing life from cancer. A 62 percent increase in risk of death from cancer was found in women with similarly high BMI.

For both sexes, cancer deaths from esophagus, colon, rectum, liver, pancreas and kidney were increased. Hodgkin's lymphoma and multiple myeloma also took a toll on obese men and women. Specific to men were increased deaths from prostate and stomach cancers, and specific to women, deaths from uterus, breast and ovarian cancers were noted.

Stepping back for a broader overview, the same investigators estimated that obese men accounted for 14 percent of all cancer deaths in males and that obese women accounted for 20 percent of all cancer deaths in females. Observing that only 6-8 percent of the population is severely obese to this degree, it is clear that obesity is at least related to an increased risk and that it may also be the cause of these cancers.



## Lung Cancer and Obesity

Lung cancer is a killing disease which is directly linked to smoking. It does not appear that this disease has a link to obesity in the same way as those which are listed above. Stopping smoking after short-term use or never smoking in the first place are key to preventing the squamous cell cancer of the lung, which takes nearly 200,000 American and more than 700,000 Chinese lives each year.<sup>2</sup>

Nevertheless, it is to be expected that an obese patient will face greater risk undergoing a thoracotomy (a surgical procedure to remove all or part of a diseased or damaged lung) than would be true for a normal weight individual.<sup>3</sup> The technical difficulty of the procedure will increase proportional to the patient's body habitus (known as the cardiopulmonary risk index or CPRI), and this translates into greater risk. Abdominal surgery would be even more difficult if not prohibitive for other kinds of cancers in the gastrointestinal tract.

## Cancer of the Esophagus

When acid from the stomach frequently washes back up into the esophagus, the condition known as reflux esophagitis can occur. This is a common problem for those who are obese, occurring more than twice as often as normal weight patients.

Not surprisingly, cancer of the esophagus is also known as an obesity-related disease probably because the chronic irritation which produces changes in the esophageal lining, known as Barrett's esophagitis, can progress to cancer.

While recent reports of curing patients of this problem by radiofrequency ablation (image-guided technique designed to kill cancer cells by heating and destroying them) before it progresses to cancer are promising, the acid reflux must stop to prevent recurrence.<sup>4</sup>

Bariatric surgery procedures have great success in reducing weight, which will frequently relieve symptoms. Gastric bypass is a weight-loss procedure that has a clear benefit of relieving the acid reflux in the great majority of patients.<sup>5</sup> Symptomatic relief is also noted in as many as 90 percent of patients with an adjustable gastric band,<sup>6</sup> another type of weight-loss surgery procedure. This relief comes soon after the procedures, even before the patients lose weight. Perhaps this will translate into a lower incidence of esophageal cancer as well.

## Chemotherapy

Chemotherapy for victims of breast cancer is now standard for Stage II and Stage III disease. These patients with positive lymph nodes for cancer have been reviewed with respect to factors such as obesity, diet and exercise. Obese patients with body weight as little as 20 percent above ideal experienced as much as a 33 percent increase in cancer recurrence compared to those with body weight less than 20 percent above ideal.

Long-term survival was only 40 percent compared to 54 percent on the lighter weight group.<sup>7,8</sup> Overweight patients who exercised and ate high fruit and vegetable diets appeared to have been able to erase the adverse effect of the obesity on survival, but only small numbers of the obese were able to be active and choose food appropriately.<sup>9</sup>

## Conclusion

While we should acknowledge that modern oncology practices involving surgery, chemotherapy and radiation have saved the lives of hundreds of thousands in the past decade, we should not ignore the fact that the moderately and severely obese may not be among the large numbers enjoying those benefits.

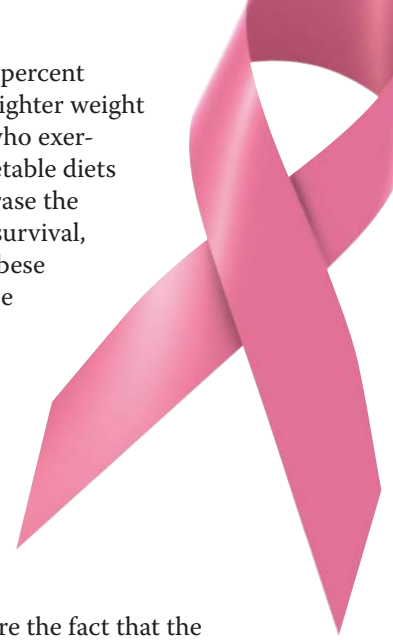
Those who have undergone weight-loss surgery can tell a different story. We remain hopeful that other successful bariatric procedures will carry this same kind of highly favorable impact upon the future wellness of those who choose surgical treatment of this very difficult condition.

### About the Author:

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# ABOUT THE OBESITY ACTION COALITION (OAC)

The Obesity Action Coalition (OAC) is a National non-profit organization dedicated to giving a voice to individuals affected by obesity and helping them along their journey toward better health. Our core focuses are to elevate the conversation of weight and its impact on health, improve access to obesity care, provide science-based education on obesity and its treatments, and fight to eliminate weight bias and discrimination.



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The OAC knows that the journey with weight can be challenging but we also know that great things happen when we learn, connect and engage. That is why the OAC Community exists. Our Community is designed to provide quality education, ongoing support programs, an opportunity to connect, and a place to take action on important issues.

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