

Esophageal Cancer

Surgery

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Introduction

I'm Dr Jonathan Salo, a GI Cancer Surgeon in Charlotte, North Carolina.

In this video, you will learn about

- Different kinds of surgery for esophageal cancer
- Risks of surgery
- How you can reduce the risk of surgery

In another video, we'll talk about how to choose a hospital and surgeon for your esophagectomy.

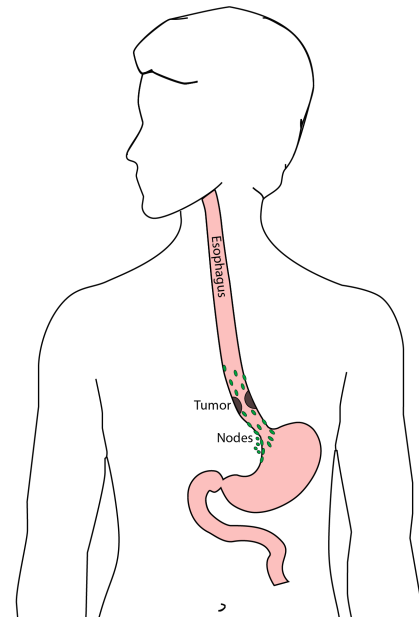
Surgery for esophageal cancer is generally performed for three different situations:

- Superficial Tumors (T1) that can't be completely removed by endoscopy
- Localized Tumors (T2N0)
- Locally Advanced Tumors (T3 or N+) after the completion of chemotherapy and radiation

If you haven't seen it already, this may be a good time to view the Esophageal Cancer Treatment Options video.

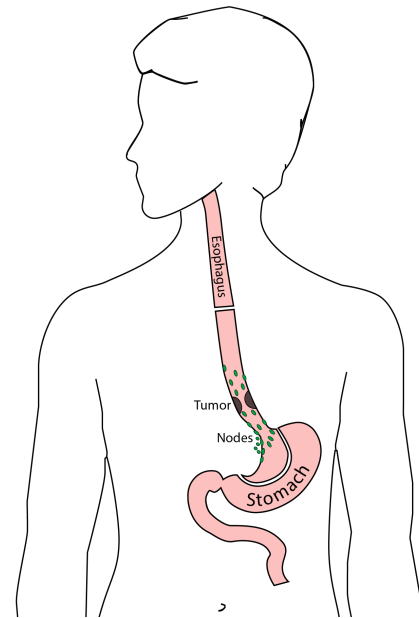
Goals of Esophagectomy

- Remove tumor from esophagus
- Remove surrounding lymph nodes
- Create a new esophagus



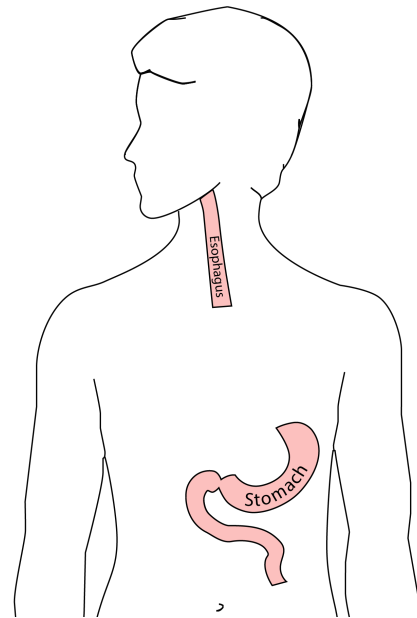
Resection

The *Ivor Lewis* esophagectomy, shown here, removes the lower 2/3 of the esophagus, the tumor, and the surrounding lymph nodes from the chest.



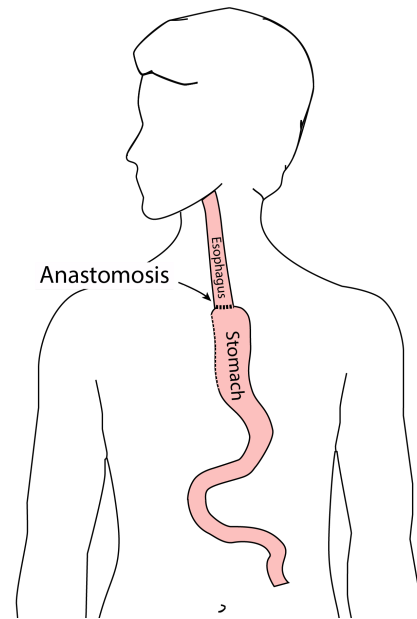
Reconstruction

A new esophagus is created from the stomach in the abdomen by fashioning it into a tube.



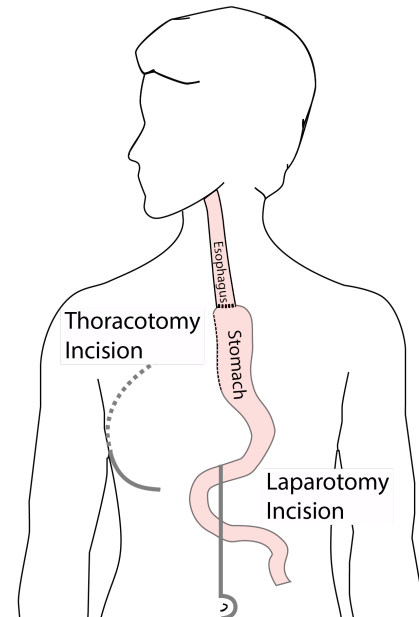
Ivor Lewis esophagectomy

The new esophagus is now brought up into the chest. A new connection is made between the esophagus and the stomach, called an *anastomosis*.



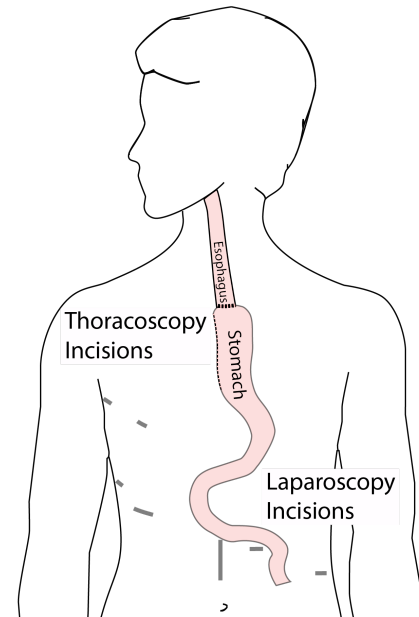
Open Esophagectomy

Open esophagectomy makes incisions in the abdomen and the right chest.



Minimally-invasive Ivor Lewis

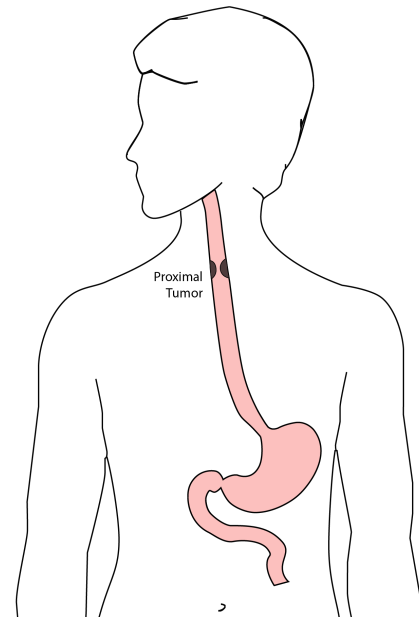
Minimally-invasive esophagectomy uses small incisions in the abdomen and chest and avoids a neck incision.



We have found at our hospital to be best choice for most patients.

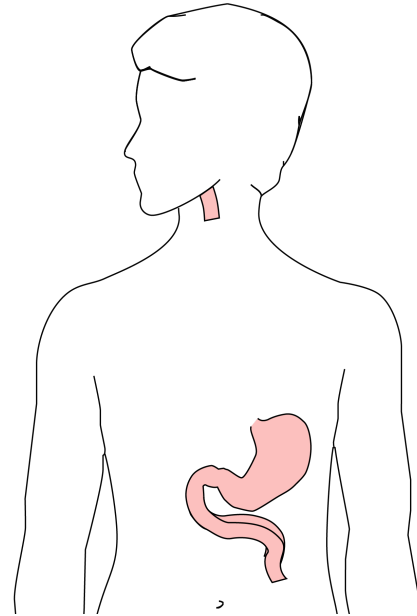
Total Esophagectomy

For patients with tumors in the upper esophagus, we need to remove more of the esophagus



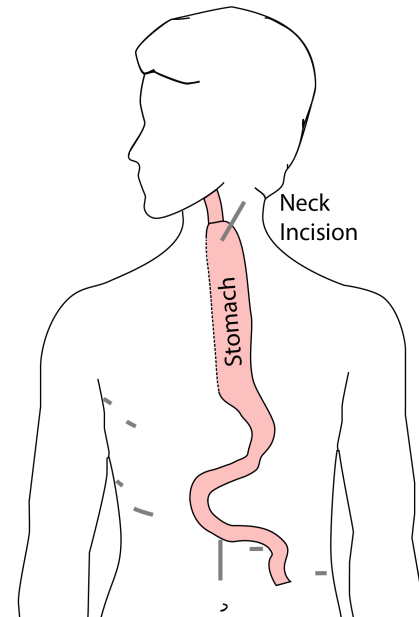
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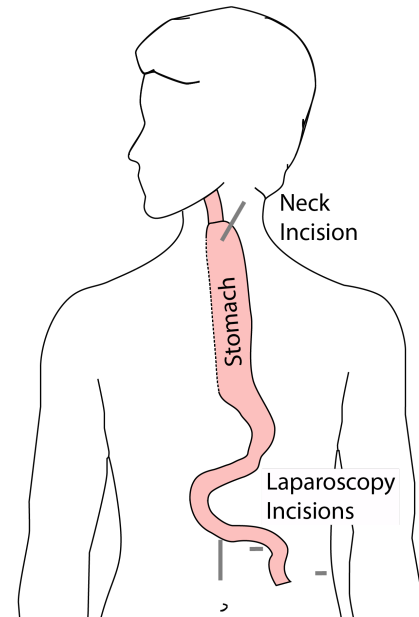
Minimally-invasive McKeown

This allows us the best opportunity to remove the tumor and nearby lymph nodes, while still allowing the benefits of minimally-invasive techniques to speed recovery.



Transhiatal Esophagectomy

For patients with small tumors or those with poor lung, an alternative is a transhiatal esophagectomy, which avoids the need to enter the right chest.



When you meet with your surgeon, you will have an opportunity to meet with your surgeon to discuss your particular situation and their recommendation for surgery.

Risks of Surgery

An esophagectomy is a substantial operation, and there can be postoperative complications. There are three major complications:

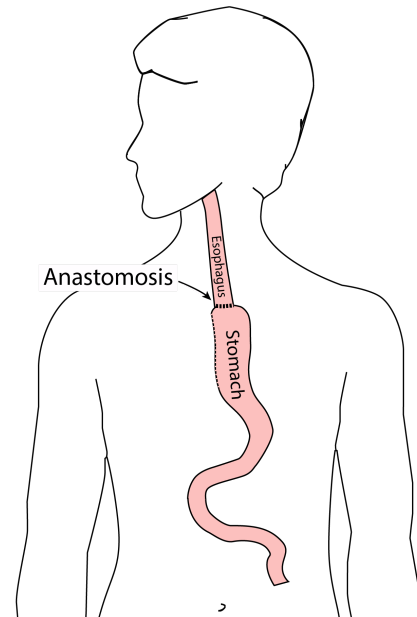
- Pneumonia
- Anastomotic leak
- Death

Pneumonia

Pneumonia occurs in about 10-15% of patients after esophagectomy. Pneumonia requires treatment with antibiotics and frequently requires a longer hospitalization.

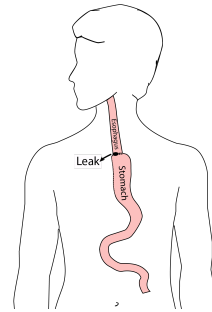
Anastomotic Leak

The anastomosis is surgical connection between the esophagus and the stomach.



Anastomotic Leak

If anastomosis does not heal properly, this can cause a leakage of fluid from the esophagus, called an anastomotic leak. In some cases, the leak will heal on its own, but other cases may require additional procedures or even



Death

In come unusual cases, complications after surgery can result in death. The risk of death depends upon the overall health of the patient. In addition, risk of death after surgery is related to the hospital and the surgeon's experience.

What are my chances?

The following are figures reported from a group of 24 high-volume hospitals for complications after esophagectomy:

- Pneumonia 15%
- Anastomotic leak 11%
- Death within 90 days of surgery 4.5%

High risk vs low risk

Auto safety has improved over the years,
and fatal auto accidents are quite rare.
Average driver has a risk of fatal auto
accident of 2.1 per 100 million miles
driven

But we know from our own experience that some drivers are at a higher risk than others.

For instance, what about these two drivers?



Even if you didn't know these two individuals, you would guess that a man in his 20s has a higher risk of a fatal auto accident than a women in her 30s.

Statistically, this is true.

While the overall rate is 2.1 deaths, the rate for men in their 20s is six times higher than women in their 30s

Now the auto insurance companies have noticed that young men are in a high risk group, and women are in a good risk group. Anyone who has had to pay for auto insurance for a young man understands this.

Risks of Complications

The risk of complications in part on the patient's overall health.

When I see patients in the office, we do an evaluation of their fitness, and we can estimate their risk.

Patient Health and Esophagectomy Outcomes

An esophagectomy is a substantial operation, and the outcomes depend in part on the health

Understanding Outcomes

Let's talk Baseball for a minute. Micky Mantle is regarded as one of baseball's greats, and this baseball card from 1952 is one of the most valuable in history.

If you look at the back of his card, you'll find lost of statistics, including his batting average. The numbers are there for anyone to see, including his batting average. If you're a baseball fan, one of the ways you evaluate players is based upon their statistics.

Hospital Volume

Practice makes perfect in many things in life, and esophageal surgery is no exception.

Hospitals where an esophagectomy is performed more frequently in general have better outcomes than hospitals where the operation is only occasionally done.

This chart shows the relationship between hospital volume and the risk of death after esophagectomy.

The risk of death after esophagectomy is about twice as high in hospitals which perform less than 5 esophagectomy operations per year.

Finding a Hospital

The easiest way to find out whether a particular hospital is high volume or low volume is to ask your surgeon.

Another method is to do some research on the internet. The Leapfrog Group is a non-profit organization that collects and published safety in healthcare. Their website ranks hospitals for safety and can help you find a high-volume hospital. A link to their website is available here:

[HospitalSafetyGrade.org](https://www.hospitalgrade.org/)

Leapfrog Group Website

You can search on a hospital. Once there, click "View this hospital's leapfrog Hospital Survey Results"

Of course there are low-volume hospital that have good outcomes, but starting with a high-volume hospital is a place to start.

The Leapfrog Group

Choosing a Surgeon

The surgeon is another key factor in the outcome of an operation. The Leapfrog recommends a minimum of seven operations per year for surgeons undertaking esophagectomy.

The surgeon's track record of outcomes is also an extremely helpful way to predict outcomes. Finding out this information may require some uncomfortable questions, but this is important information. It is critical to know both

Your Surgeon's Outcomes

Knowing your surgeon's outcomes is important, but knowing your surgeon's outcomes is probably more important. Your surgeon should be able to tell you what their statistics are for outcomes like anastomotic leak, pneumonia, and death after surgery.

If your surgeon doesn't know their personal statistics, you may want to look for a second opinion. After all, if you met a professional baseball player, you would

Questions for Your Surgeon

1) How many esophagectomy operations are performed each year in your hospital?
2) How many esophagectomy operations do you perform personally each year? 3) What are your overall rates of complications?

- Pneumonia
- Anastomotic Leak
- Death in the first 90 days after surgery

