There are multiple different types of lung cancer surgery. Dr. Eric Vallières, thoracic surgeon, reviews the different forms of lung surgery, include wedge resection, segmentectomy, lobectomy, and pneumonectomy.

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So, in lung cancer surgery, there are different types of operations that one can perform. The smallest amount of lung that one would consider removing is called a wedge resection, which is the equivalent of taking a bite into the lung without looking at boundaries and anatomy.

As you move up into the magnitude of the surgery, the next operation in line would be called a segmentectomy, which relates to the smallest anatomical division that the pulmonary lobes have. Those who have not had surgery — we all have five lobes in our two lungs, so three on the right, two on the left, and each lobe is divided into a number of segments. So, if you will remove only a segment, it’s called a segmentectomy, two segments would be a bisegmentectomy, and so on.
Beyond the segmentectomy, is the next amount of lung we would remove, consider removing — is a lobectomy, meaning one lobe, and as I’ve said just a few minutes ago, there are five of those: three on the right, two on the left. On the right side, sometimes, we will remove two lobes — the middle lobe, and either the upper lobe, or the lower lobe, and that is called a bilobectomy.
If we remove the entire lung, that is called a pneumonectomy, and that’s the magnitude — that’s the highest amount of lung that you can remove from one side, for obvious reasons.
In 2015, for a tumor that has still localized to the lung itself, for a tumor that has not spread anywhere, and in a patient who has the adequate cardiac and pulmonary reserves to tolerate the operation that is required, surgery is considered the standard of care — that’s the main option. There are other options, but at this stage in the game, they’re considered secondary, or less than standard of care options.

Now, when someone is evaluated for lung cancer surgery, not only do we evaluate whether the tumor is still localized, meaning it hasn’t spread anywhere, meaning that it’s a tumor that should be considered for surgery — that’s called resectability, but we also have to evaluate whether someone can handle that operation — that’s called operability, and that usually means, mainly, that we evaluate whether they have enough lung reserves to lose part of their lung, and that’s how we decide whether or not someone can handle, for example, a lobectomy.