

# Larynx Cancer

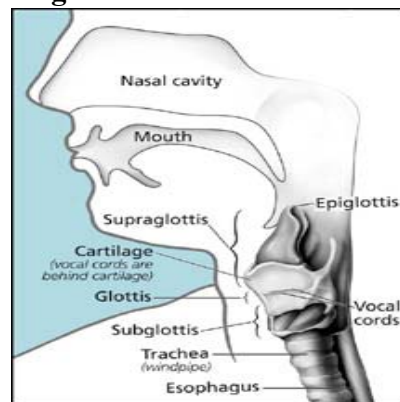
**Definition:** The larynx or voice box has three sections: supraglottis, glottis, and subglottis.<sup>1</sup> Cancer of the larynx can form in any of these structures.<sup>1</sup>

**Background:** From 2002 to 2006, there was a yearly average of approximately **541** newly diagnosed cases of laryngeal cancers in Ohio. During this same time period, Ohio experienced approximately **176** deaths each year due to laryngeal cancers.<sup>2</sup>

A majority of larynx cancers start in the glottis (vocal cords), followed by cancers forming in the supraglottic region, and finally around 5% of these cancers develop in the subglottis area.<sup>1</sup>

The number of people being diagnosed with larynx cancer is falling by about 2% to 3% each year and is thought to be mainly due to fewer people smoking.<sup>1</sup>

**Figure 11**



## Cuyahoga County Data:

- The average annual number of newly diagnosed laryngeal cancer cases from 2002-2006 was **72**, with an age-adjusted incidence rate of **4.7** per 100,000 people.
- This is **higher** than the **4.4** incidence rate for Ohio and **higher** than the **3.5** incidence rate for the Nation.
- The average annual number of laryngeal cancers deaths from 2002-2006 was **27**, with an age-adjusted mortality rate of **1.7** per 100,000 people.
- This is **higher** than the **1.4** mortality rate for Ohio and **higher** than the **1.3** mortality rate for the Nation.

**Table 11a Larynx Cancer**

Average Annual Number of Cancer Cases and Age-Adjusted Incidence Rates\* for 2002-2006

Incidence	Male		Female		Total	
	Cases	Rate	Cases	Rate	Cases	Rate
<b>Cuyahoga County</b>	57	8.6	15	1.9	72	4.7
<b>Ohio</b>	418	7.6	123	1.8	541	4.4
<b>National SEER</b>		6.2		1.3		3.5

\* Rate is calculated per 100,000 people.

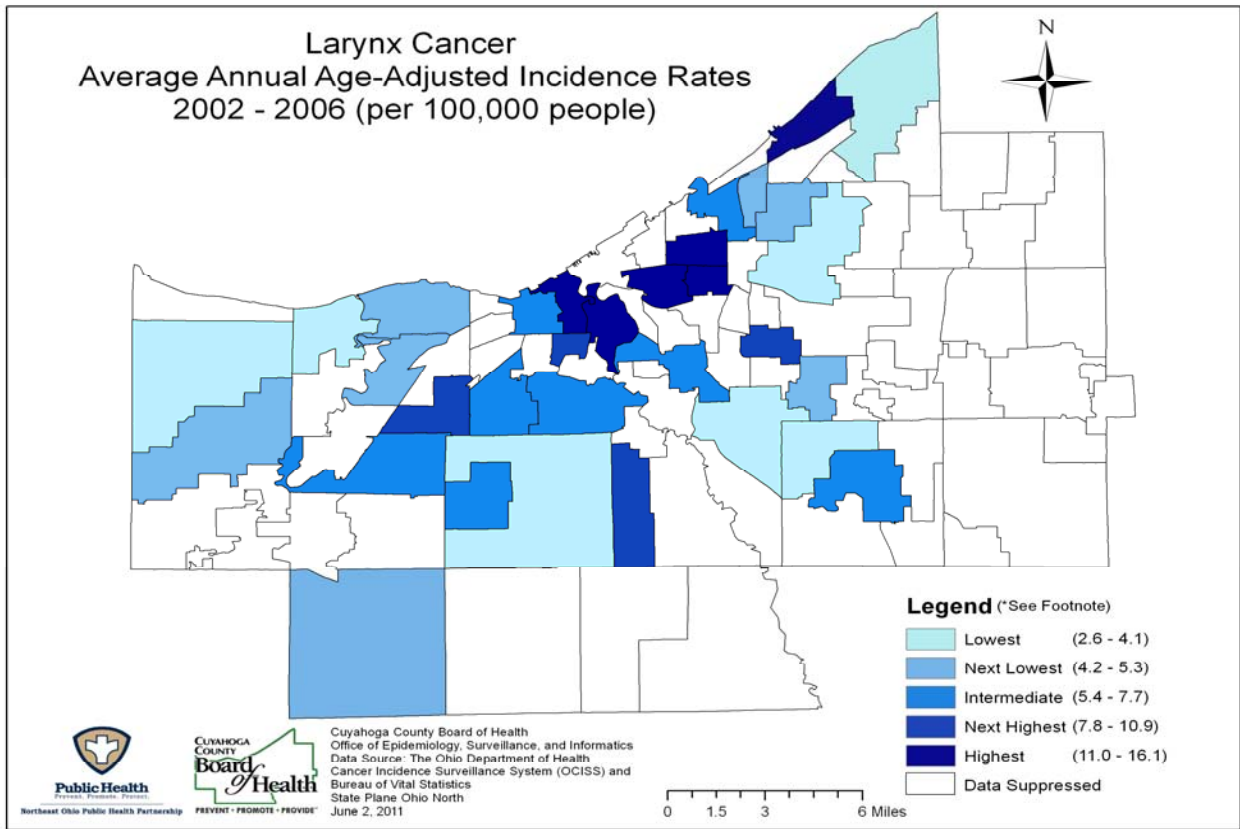
**Table 11b Larynx Cancer**

Average Annual Number of Cancer Deaths and Age-Adjusted Mortality Rates\* for 2002-2006

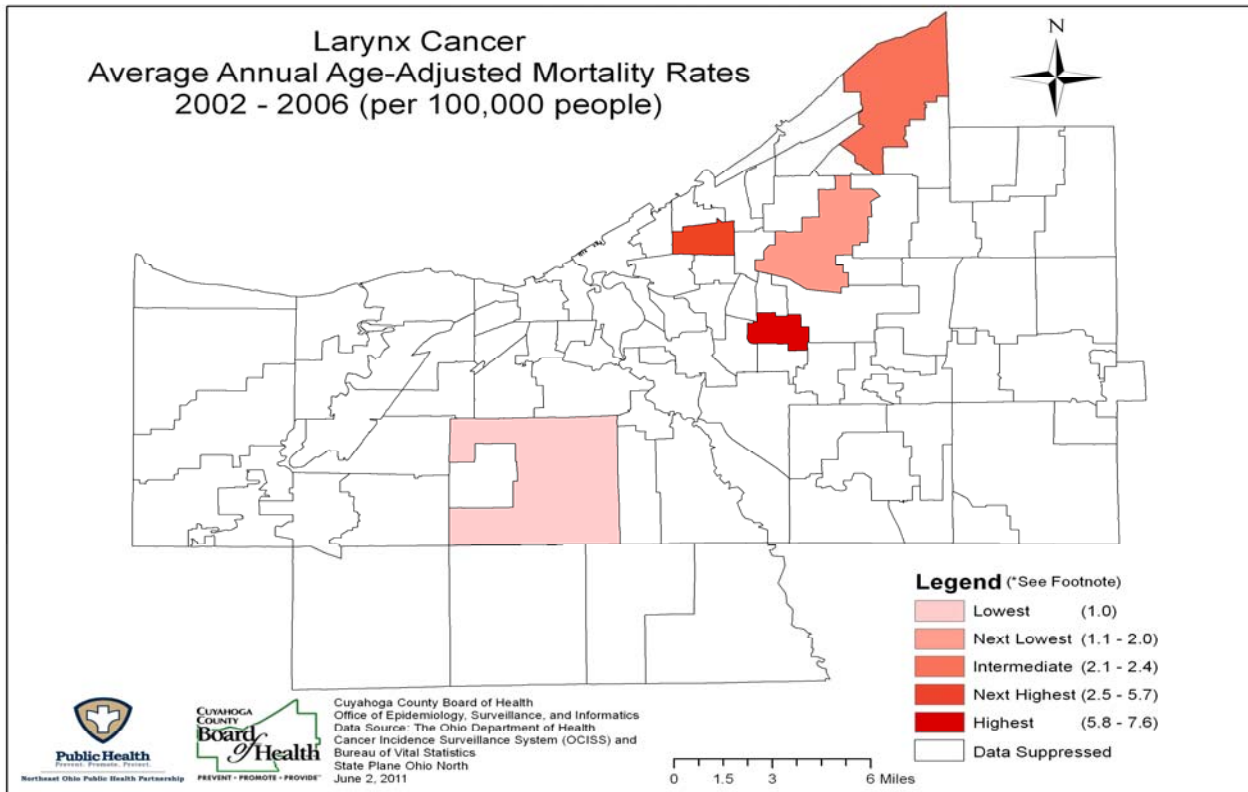
Mortality	Male		Female		Total	
	Cases	Rate	Cases	Rate	Cases	Rate
<b>Cuyahoga County</b>	22	3.3	6	0.7	27	1.7
<b>Ohio</b>	138	2.6	38	0.6	176	1.4
<b>National SEER</b>		2.3		0.5		1.3

\* Rate is calculated per 100,000 people.

**Figure 11a**

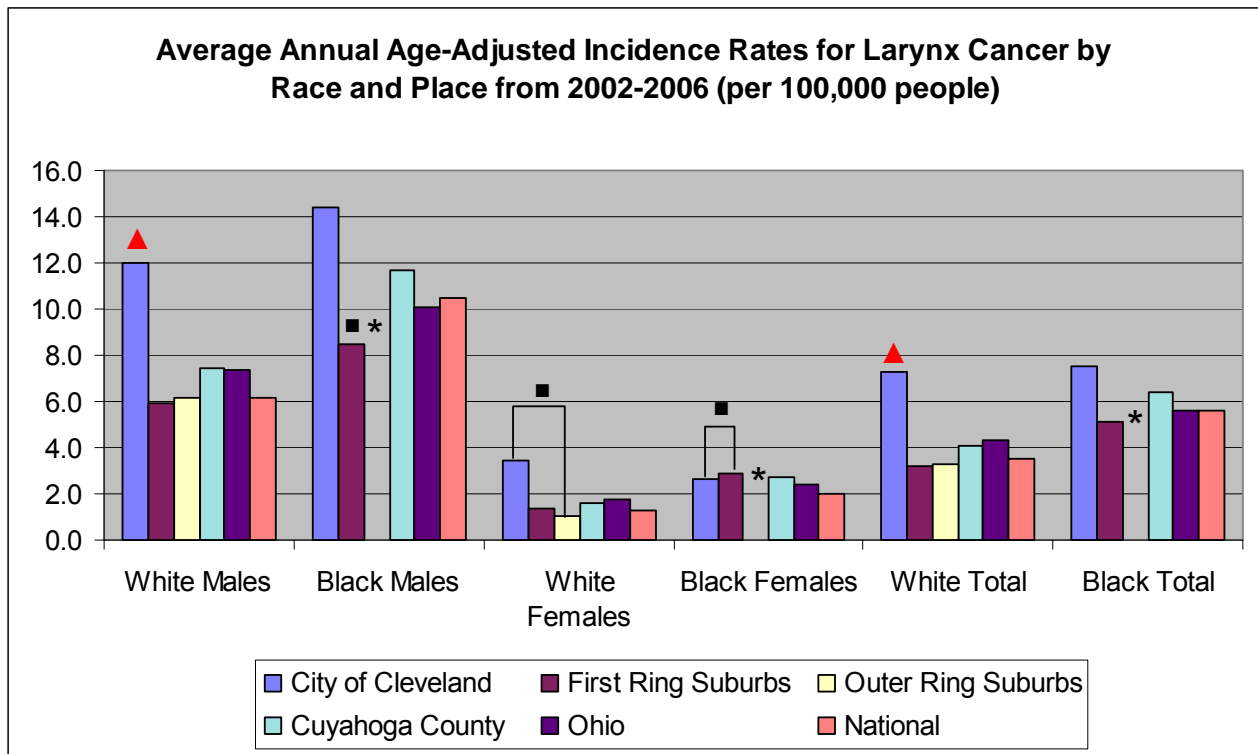


**Figure 11b**

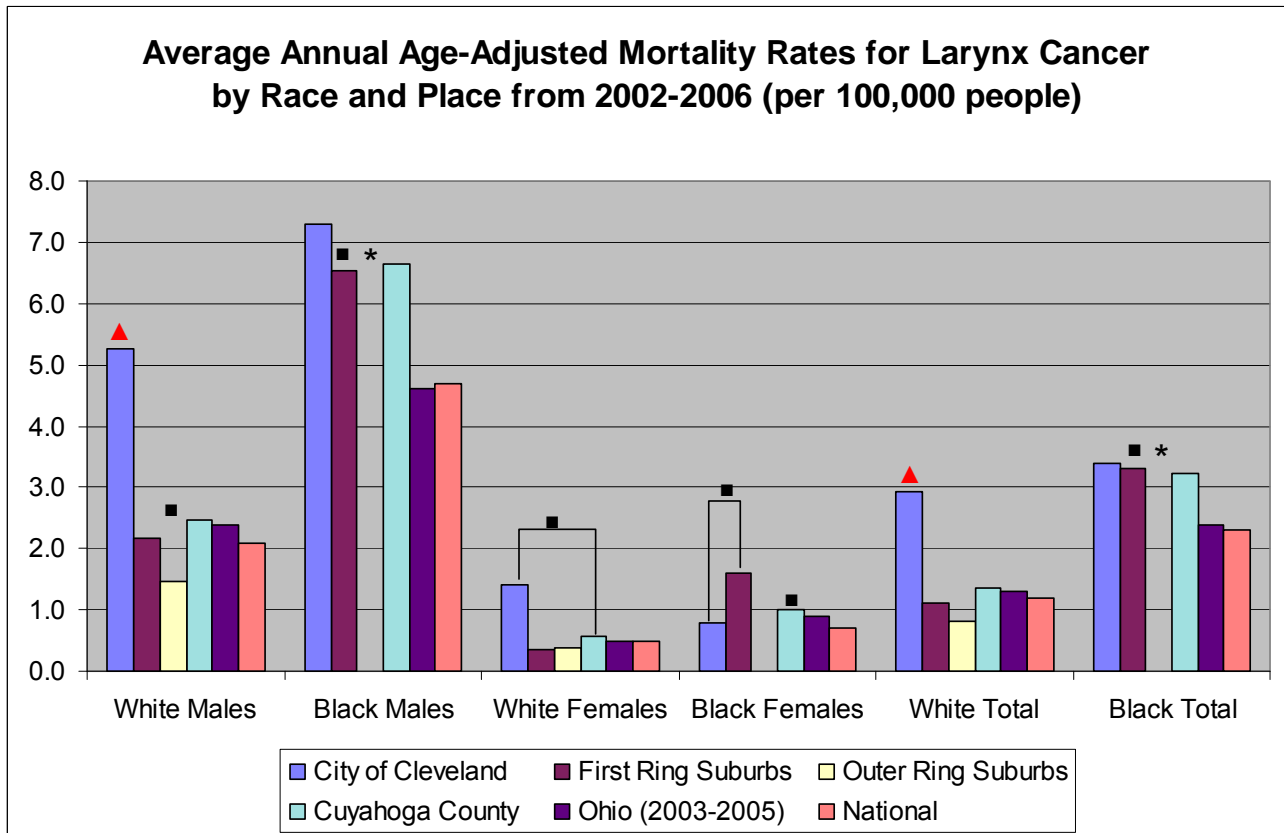


\*Data were suppressed to help maintain confidentiality and /or due to concerns over unstable numbers. See methods/limitations section for additional details.

**Chart 11a**



**Chart 11b**



▲ Rates are statistically significantly higher when compared to Cuyahoga County.

▼ Rates are statistically significantly lower when compared to Cuyahoga County.

■ Rates are not compared to Cuyahoga County when there are <20 cases total for 2002-2006 due to instability.

\*Data were suppressed to help maintain confidentiality and/or due to concerns over unstable numbers. See methods/limitations section for additional details.

## Risk Factors

**Males:** In the United States, 1 in 167 males will develop larynx cancer and 1 in 455 males will die from larynx cancer.<sup>3</sup>

**Females:** In the United States, 1 in 714 females will develop larynx cancer and 1 in 1,667 females will die from larynx cancer.<sup>3</sup>

Several risk factors may contribute to the development of larynx cancer. They include:<sup>1</sup>

- **Tobacco use-** Tobacco is the most important risk factor for head and neck cancers, and most people diagnosed with laryngeal cancer have had a history of smoking or tobacco exposure.
- **Alcohol use-** Heavy drinkers have a higher risk of larynx cancer than nondrinkers.
- **Poor nutrition-** Vitamin deficiencies, especially B vitamins and vitamin A retinoids, may increase the risk of laryngeal cancer.
- **Weakened immune system**
- **Genetic syndromes**
  - Fanconi anemia
  - Dyskeratosis congenita
- **Workplace exposures**
- **Gender-** Laryngeal cancer is 4 times more likely in men than women. This is mainly because smoking and alcohol abuse are more common in men; however recently these habits have increased in women causing an increased risk of larynx cancer in females as well.
- **Age-** Most cases of laryngeal cancers are found in people over the age of 65.
- **Race-** Larynx cancer is more common among African American and Whites than Asians and Latinos.
- **Gastroesophageal reflux disease (GERD)**

## Symptoms<sup>4</sup>

- Hoarseness or other voice changes
- A lump in the neck
- A sore throat or feeling that something is stuck in your throat
- A cough that does not resolve
- Breathing problems
- Bad breath
- Earache
- Weight loss

## Screening, Prevention and Early Detection<sup>1</sup>

### Screening:

Although there are no recommended screening tests for laryngeal cancer, symptoms may help with detection of this cancer at an early stage. Any symptoms should be discussed with a physician to determine the cause and begin treatment, if necessary.

## Prevention:

A majority of laryngeal cancers can be prevented by avoiding risk factors that are associated with this cancer. The American Cancer Society recommends avoiding exposure to tobacco, avoiding combining drinking and smoking, and eating a balanced diet that contains a variety of healthful foods.

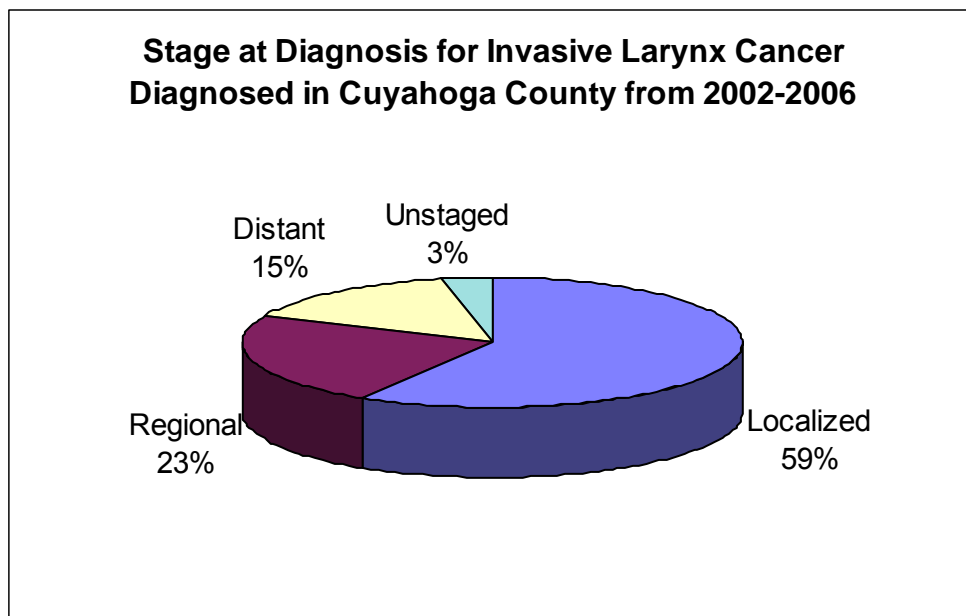
## Staging

Stage at Diagnosis describes the severity of a person's cancer and the extent to which it has or has not spread throughout the body.<sup>5</sup> Cancer staging is important in helping physicians plan appropriate treatment, as well as to estimate a patient's prognosis.<sup>5</sup> Cancer diagnosed in the *in situ* and localized stages are generally referred to as early-stage tumors, whereas regional and distant tumors are referred to as late-stage tumors.<sup>2</sup> Detecting cancers at an early stage may increase long-term survival and can lead to a reduction in mortality.<sup>2</sup>

The National Cancer Institute groups staging into five main categories:<sup>5</sup>

- ***In situ***: Abnormal cells are present only in the layer of cells in which they developed. In this report, *in situ* cases are only included for bladder cancer.
- **Localized**: Cancer is limited to the organ in which it began, without evidence of spread.
- **Regional**: Cancer has spread beyond the primary site to nearby lymph nodes or organs and tissues.
- **Distant**: Cancer has spread from the primary site to distant organs or distant lymph nodes.
- **Unstaged/Unknown**: There is not enough information to determine the stage.

Chart 11c



**Table 11c**

<b>5-year Relative Survival* by Stage at Diagnosis for Larynx Cancer in the United States for 1999-2006, All Races, Both Sexes<sup>5</sup></b>	
<b>Stage at Diagnosis</b>	<b>5-year Relative Survival (%)</b>
Localized (confined to primary site)	77.6
Regional (spread to regional lymph nodes)	41.5
Distant (cancer has metastasized)	33.2
Unknown/Unstaged	46.7

\*Relative survival compares observed survival for those with cancer to the expected survival for those without cancer.

## More Information

National Cancer Institute <http://www.cancer.gov/>

American Cancer Society <http://www.cancer.org>

Ohio Department of Health <http://www.odh.ohio.gov/>

## Resources

1. The American Cancer Society. Larynx Cancer Detailed Guide. <http://www.cancer.org/Cancer/HodgkinDisease/DetailedGuide/hodgkin-disease-what-is-hodgkin-disease>. (Accessed December 29, 2010).
2. *Cancer Incidence and Mortality among Ohio Residents, 2002-2006*. Ohio Cancer Incidence Surveillance System, Ohio Department of Health and The Ohio State University, Columbus, Ohio, December 2009. [http://www.odh.ohio.gov/ASSETS/79F9E92E210F477D885F8EAC864E2F27/0206Monograph\\_Final.pdf](http://www.odh.ohio.gov/ASSETS/79F9E92E210F477D885F8EAC864E2F27/0206Monograph_Final.pdf).
3. The American Cancer Society. Lifetime Risk of Developing or Dying From Cancer. <http://www.cancer.org/Cancer/CancerBasics/lifetime-probability-of-developing-or-dying-from-cancer>. (Accessed January 10, 2011).
4. National Cancer Institute. What you need to know about cancer of the larynx <http://www.cancer.gov/cancertopics/wyntk/larynx/page5>. (Accessed December 29, 2010).
5. National Cancer Institute. Cancer Staging. <http://www.cancer.gov/cancertopics/factsheet/Detection/staging>. (Accessed December 23, 2010).
6. Surveillance Epidemiology and End Results. SEER Stat Fact Sheets: Larynx. <http://seer.cancer.gov/statfacts/html/larynx.html>. (Accessed December 29, 2010).
7. National Cancer Institute. What you need to know about cancer of the larynx. Larynx images from <http://www.cancer.gov/cancertopics/wyntk/larynx/page2>. (Accessed December 29, 2010).