

People are sometimes concerned about what seems like an elevated number of cancer cases in their neighborhood. The following information may be helpful in understanding suspected cancer clusters.

## **Facts about Cancer:**

- Cancer is the uncontrolled growth of abnormal cells which have potential to spread throughout the body. However, cancer is not a single disease but a term covering over 100 different diseases.
- Different types of cancers have different “risk factors” which may increase the chance of developing the disease.
- Smoking is a risk factor associated with several different cancers (for example, lung, bladder and oral cancers). Other risk factors include:
  - Alcohol
  - Diet
  - Lack of exercise
  - Exposure to UV radiation (sunlight)
  - Hormonal factors
  - Family history of cancer
  - Exposure to infectious agents
- External environmental factors (in air, water or soil) may account for 5 – 10% of cancers.
- Cancer takes a long time to develop after exposure to a carcinogen (a substance that causes cancer), generally 10 – 30 years, making it difficult to pinpoint a specific cause.
- Cancer is a common disease. About 1 in 2 men and 1 in 3 women in the US will be diagnosed with cancer at some time in their life. Cancer is the 2<sup>nd</sup> leading cause of death in the US.
- The risk of developing cancer increases with age. Because of increases in average life expectancy, and advances in the diagnosis and treatment of cancer, it is not uncommon to know several neighbors, relatives or work colleagues who have been diagnosed with cancer.

## **Cancer Clusters:**

- A *suspected* cancer cluster is more likely to be a *true* cluster, rather than a coincidence, if it involves one or more of the following factors:
  - A large number of cases of one type of cancer, rather than several different types.
  - A rare type of cancer, rather than common types.
  - An increased number of cases of a certain type of cancer in an age group that is not usually affected by that type of cancer.
- Epidemiologists are scientists who study the frequency and distribution of disease in populations. In a cluster investigation they look at cases of cancer to determine whether there is an excess (more than would be normally expected) in the particular area, taking into account the characteristics of the population in the given area and knowledge of the disease.
- To do this, epidemiologists need information about the particular types of cancers involved, the people affected, when they were diagnosed, how old they are, where they live and how long they have lived there.
- Sometimes a specific carcinogen is suspected to be present in an area. Ideally the population should be defined according to their potential exposure to the suspected carcinogen before determining the level of cancer in that population.
- It is difficult to interpret results of analyses based on small numbers of cancers in small populations, as a change of even one case will cause a dramatic fluctuation in the cancer rate.
- Almost all suspected cancer clusters have been found on further investigation *not to be* true clusters, or have no explanation other than chance.

- Some examples of actual clusters include:
  - Mesothelioma in asbestos workers;
  - Leukemias in atomic bomb survivors;
  - Liver tumors in workers exposed to vinyl chloride; and
  - Lung cancer in uranium miners

These all involved very high exposures to carcinogens.

- The Connecticut Tumor Registry collects information about all cancers in Connecticut and can evaluate the expected number of cancers in the particular population, and whether the number observed is higher than expected based on statewide cancer rates.

## **Further Information:**

### Cancer Clusters

The National Cancer Institute has a section of their web site dedicated to cancer clusters:

<http://www.cancer.gov/cancertopics/factsheet/Risk/clusters>

The Centers for Disease Control and Prevention (CDC) offers comprehensive information in the 'Cancer Clusters' section of their web site:

<http://www.cdc.gov/nceh/clusters/default.htm>

### General Information about Cancer

Information about cancer, its causes and risk factors is available on the web sites of the following organizations:

- The National Cancer Institute:  
<http://www.cancer.gov/>
- The Centers for Disease Control and Prevention:  
<http://www.cdc.gov/cancer/>
- The American Cancer Society:  
<http://www.cancer.org/>

### Cancer Statistics

The Connecticut Tumor Registry publishes cancer statistics for Connecticut at the state, county and town level. The majority of reports are available on our web site:

[http://www.ct.gov/dph/cwp/view.asp?a=3129&q=389716&dphNav\\_GID=1601&dphPNavCtr=#46986](http://www.ct.gov/dph/cwp/view.asp?a=3129&q=389716&dphNav_GID=1601&dphPNavCtr=#46986)

The Connecticut Tumor Registry may be able to provide other cancer statistics as long as disclosure of the information does not breach our strict guidelines for maintaining *patient confidentiality*. We cannot release cancer data for an area smaller than a town, and *under no circumstances* can we provide information about individual cancer patients.

Cancer statistics for other states and for the whole of the US are available from:

- The National Cancer Institute  
<http://www.cancer.gov/statistics/>
- The North American Association of Central Cancer Registries (NAACCR)  
<http://www.naacr.org>
- The Surveillance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute:  
<http://seer.cancer.gov>

If you would like more information about cancer clusters, you can contact the Connecticut Tumor Registry at:

*Connecticut Department of Public Health  
Connecticut Tumor Registry  
410 Capitol Avenue, MS# 13TMR  
P.O. Box 340308  
Hartford, CT 06134-0308  
Telephone: (860) 509 7163*

If you have a concern about a specific environmental or work-related exposure, you can contact the Environmental & Occupational Health Assessment Program at the Department of Health at:

*Connecticut Department of Public Health  
Environmental and Occupational Health  
Assessment  
410 Capitol Avenue, MS# 11OSP  
P.O. Box 340308  
Hartford  
CT 06134-0308  
Telephone: (860) 509 7744*