

## ■ INTRODUCTION

Oncology is the study and treatment of new, abnormal tissue known as neoplasms. Typically, it refers to cancer, the disease characterized by uncontrolled cell division that leads to abnormal cells. Cancer is a leading public health issue worldwide. Among men, the most common type of cancer is prostate (26%); among women, the most common cancer is breast (29%). This chapter focuses on word parts and medical terms related to oncology.

## ■ WORD PARTS

The following tables list word parts related to oncology. Note that some word parts introduced earlier in the book may not be repeated here.

### Combining Forms

Combining Form	Meaning
ablat/o	to take away
bi/o	life
cancer/o	cancer
carcin/o	cancer
chem/o	chemical, drug
cry/o	cold
cyt/o	cell
kary/o	nucleus
lapar/o	abdomen
leuk/o	white
melan/o	black, dark
onc/o	tumor
path/o	disease
plas/o	growth, formation
radi/o	x-rays, radiation
rhabd/o	striated muscle
sarc/o	muscle, flesh
squam/o	scale-like structure

## Prefixes

Prefix	Meaning
chondro-	cartilage
dys-	painful, difficult, abnormal
intra-	within
leio-	smooth
mal-	bad, poor
meta-	change, beyond
neo-	new
para-	beside
trans-	across, through

## Suffixes

Suffix	Meaning
-gen	origin, production
-genic	originating, producing
-oma	tumor or neoplasm
-scopy	viewing, examining, or observing with an instrument

## Exercises: Word Parts



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### Exercise 1

Write the meaning of the combining form given.

1. path/o \_\_\_\_\_
2. carcin/o \_\_\_\_\_
3. onc/o \_\_\_\_\_
4. cancer/o \_\_\_\_\_
5. cry/o \_\_\_\_\_
6. melan/o \_\_\_\_\_
7. leuk/o \_\_\_\_\_
8. sarc/o \_\_\_\_\_
9. radi/o \_\_\_\_\_
10. lapar/o \_\_\_\_\_

## MEDICAL TERMS

### General Terms Related to Oncology

Term	Pronunciation	Meaning
<b>General Terms</b>		
benign	bě-nīn'	nonmalignant form of a neoplasm
cancer (CA)	kan'sě	general term for a group of diseases characterized by an abnormal, uncontrolled growth of cells
cancerous	kan'sě-r-ŭs	pertaining to cancer
carcinogen	kar-sin'ō-jen	any cancer-causing substance or organism
differentiation	dif'ěr-en'shē-ā'shŭn	acquiring characteristics or functions different from that of the original cell
dysplasia	dis-plā'zē-ā	abnormal growth of tissue (Figure 16-1)
in situ	in sī'tū	in the original place or site without any expansion or spread (Figure 16-1)
invasion	in-vā'zhŭn	the direct migration and penetration of cancerous cells into neighboring tissues
lesion	lē'zhŭn	a pathologic change in tissue resulting from disease or injury
malignant	mā-lig'nānt	tumor that invades surrounding tissue and may spread to other body parts; cancerous (Figure 16-1)
metastasis	mē-tas'tā-sis	spread of disease from one part of the body to another (Figure 16-2)
oncogenes	ong'kō-jenz	mutated forms of genes that cause normal cells to grow out of control and become cancer cells
oncogenic	ong'kō-jen'ik	causing or being suitable for the development of a tumor

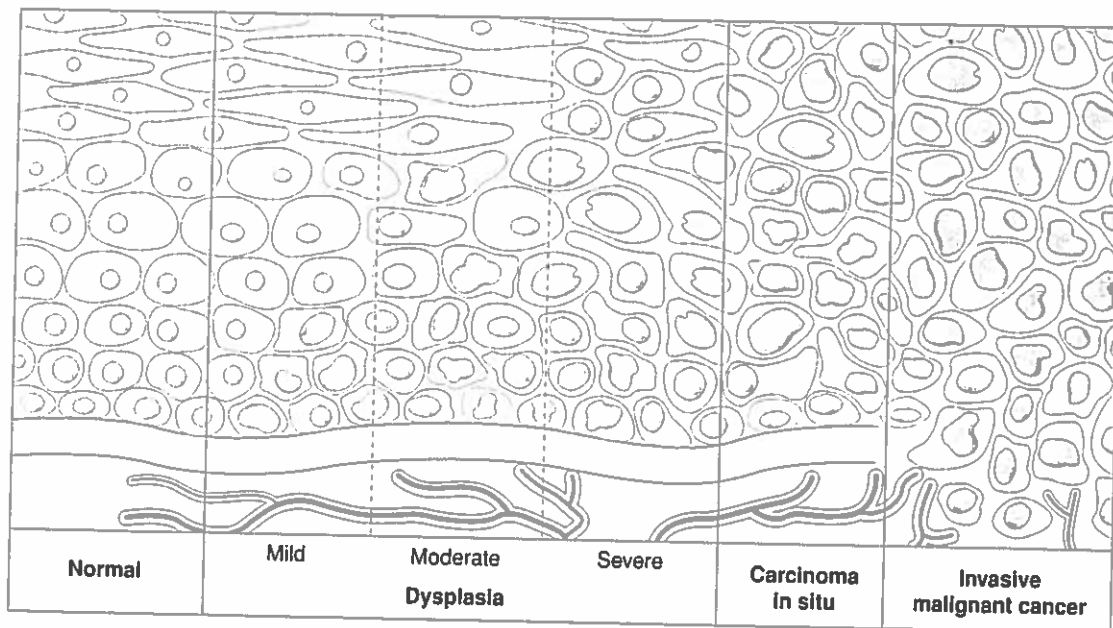
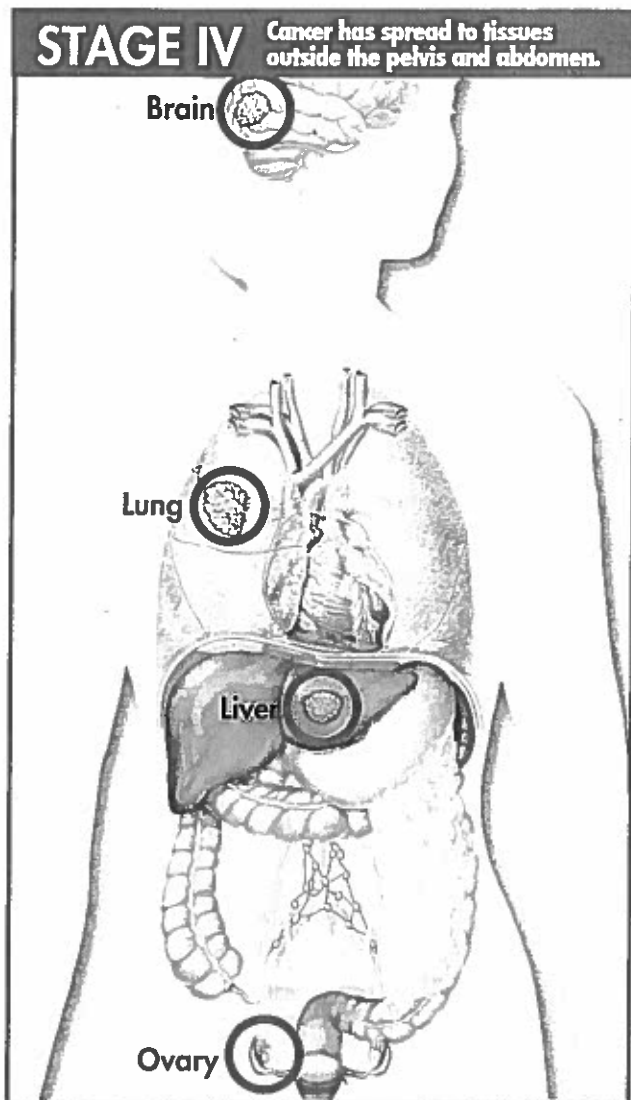


Figure 16-1 Examples of tissue showing cell changes related to cancer.

## General Terms Related to Oncology

Term	Pronunciation	Meaning
recurrence	rē-kŭr'ĕns	the return of cancer or disease
remission	rē-mish'ŭn	lessening in severity of disease symptoms; the period of time when a cancer is responding to treatment or is under control
TNM staging	tĕ en em stāj'ing	abbreviation for cancer classification based on characteristics of the tumors, nodal involvement, and extent of metastasis (Figure 16-3)
tumor staging	tŭ'mŏr stāj'ing	the extent of spread of a cancer from its original site

(continued)



### Distant Metastases

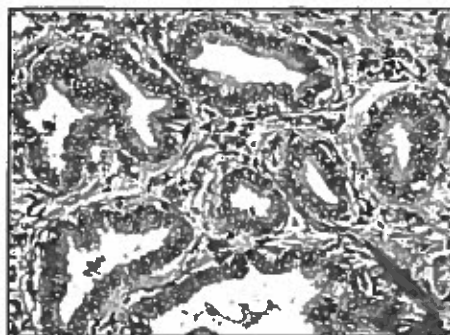
- Liver
- Lung
- Brain

**Figure 16-2** Metastatic ovarian cancer. The original cancer site was located in the ovary, and it has spread to the brain, lung, and liver.

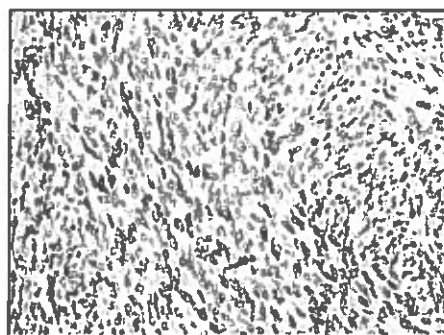
## General Terms Related to Oncology

Term	Pronunciation	Meaning
adenoma	ad'ĕ-nō'mă	benign neoplasm composed of glandular tissue
carcinoma (CA)	kar'si-nō'mă	malignant neoplasm derived from epithelial tissue, chiefly glandular (adenocarcinoma) or squamous (squamous cell carcinoma)
fibroma	fī-brō'mă	benign neoplasm of fibrous connective tissue
fibrosarcoma	fī'brō-sar-kō'mă	malignant neoplasm of deep fibrous tissue (Figure 16-5)
lipoma	li-pō'mă	benign neoplasm of adipose (fat) tissue
liposarcoma	lip'ō-sar-kō'mă	malignant neoplasm of adipose (fat) tissue (Figure 16-5)
malignant neoplasm	mă-lig'nănt nĕ'ō-plazm	tumor that invades surrounding tissue and is usually capable of metastasizing; can be located in any organ or tissue in the body
melanoma	mel'ă-nō'mă	tumor characterized by a dark appearance; most commonly occurs in the skin or in the eye (Figure 16-5)

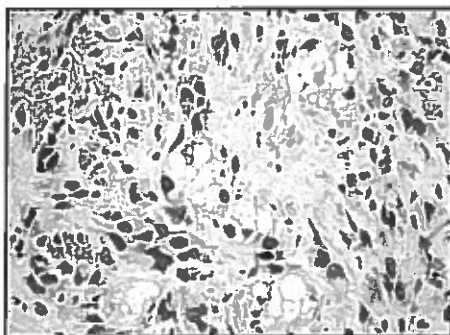
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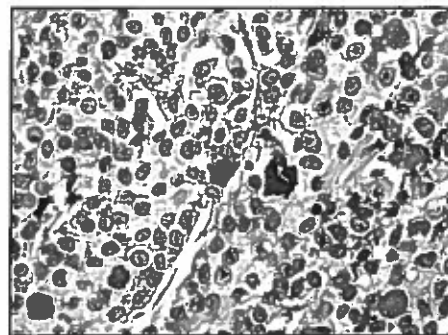
Adenocarcinoma



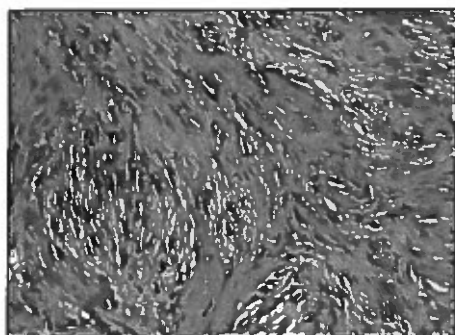
Fibrosarcoma



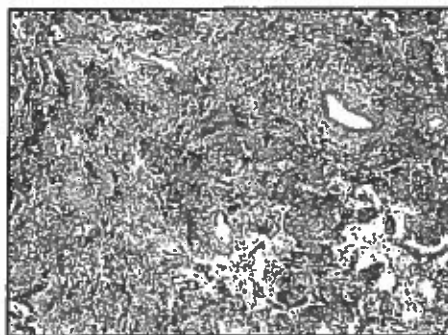
Liposarcoma



Melanoma



Neuroma



Sarcoma

Figure 16-5 Types of tumors seen under the microscope.

## General Terms Related to Oncology (continued)

Term	Pronunciation	Meaning
neoplasm; <i>syn.</i> tumor	nĕ'ō-plazm; tū'mōr	abnormal growth of new tissue into a mass; can be benign or malignant
neuroma	nūr-ō'mă	tumor derived from nervous tissue (Figure 16-5)
myeloma	mī'ĕ-lō'mă	tumor composed of cells derived from bone marrow (Figure 16-5)
sarcoma	sar-kō'mă	malignant neoplasm of connective tissue or nonepithelial tissue

### Exercises: General Terms Related to Oncology

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#### Exercise 6

Circle the term that is most appropriate for the meaning of the sentence.

1. A nonmalignant tumor is (*oncogenic, benign, invasive*).
2. A liposarcoma is different from a lipoma in that it is a(n) (*malignant, benign, oncogenic*) neoplasm.
3. Tumors derived from cells in the bone marrow are called (*lipomas, sarcomas, myelomas*).
4. A tumor characterized by a dark appearance is called a (*sarcoma, melanoma, myeloma*).
5. An adenocarcinoma is composed of (*squamous cells, nerve cells, glandular tissue*).
6. Something that is responsible for causing the development of a tumor is described as (*malignant, oncogenic, recurrent*).
7. Cancer that has returned is known as a (*promotion, progression, recurrence*).
8. A tumor derived from nervous tissue is called a (*nucleus, recurrence, neuroma*).
9. A tumor that is locally invasive and characterized by destructive growth and metastasis is referred to as (*benign, malignant, oncogenic*).
10. A benign neoplasm derived from fatty tissue is referred to as a (*neuroma, lipoma, fibroma*).
11. A tumor that invades surrounding tissue and is usually capable of producing metastasis is known as a(n) (*malignant neoplasm, adenoma, carcinoma*).

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#### Exercise 7

Match each medical term with its meaning.

dysplasia	lesion	in situ	invasion	benign
cancer	metastasis	tumor	carcinoma	

1. malignant neoplasm derived from epithelial tissue \_\_\_\_\_
2. nonmalignant form of a neoplasm \_\_\_\_\_