

## ***Glossary***

<b>Absorption</b>	As applied to radiography, the act of attenuating an x-ray beam. Tissues of different densities have differing numbers of x-ray photons and therefore appear relatively “black” (less dense) or “white” (denser) on an x-ray film.
<b>Acinar shadow</b>	A round or ovoid, poorly defined pulmonary opacity 4-8 mm in diameter, presumed to represent a pulmonary acinus rendered opaque by consolidation. This term is usually used in the presence of many such opacities.
<b>Air bronchogram</b>	The radiographic shadow of an air-filled bronchus peripheral to the hilum and surrounded by airless lung (whether by virtue of absorption of air or replacement of air or both). The air is visible within the bronchus because the lung surrounding the bronchus is airless. Visualization of an air bronchogram usually implies the presence of an airspace filling process
<b>Aortopulmonary window</b>	Mediastinal space surrounded anteriorly by the ascending aorta; posteriorly by the descending aorta; superiorly by the aortic arch; inferiorly by the left pulmonary artery; laterally by the left lung; and medially by the left aspect of the trachea, left mainstem bronchus, and esophagus. This space normally contains the ductus ligament, the left recurrent laryngeal nerve, lymph nodes, and fat.
<b>Atelectasis</b>	Less-than-normal inflation of all or part of a lung with corresponding diminution in volume, often resulting in loss of the normal lucency of the affected portion of lung.
<b>Attenuation</b>	A collective term for the processes (absorption and scattering) by which the energy of an x-ray beam is diminished in its passage through matter.
<b>Bronchopleural fistula</b>	An abnormal connection between the pulmonary parenchyma and the pleural space. Because bronchi conduct air to the alveoli in the pulmonary parenchyma, such a connection functionally represents direct communication between a bronchus and the pleural space. A bronchopleural fistula is usually manifest on a radiograph as a persistent, often large, pneumothorax, frequently with an air leak when a thoracostomy tube is in place.
<b>Cavitation</b>	The process by which a cavity is formed.
<b>Cavity</b>	A gas-filled space within a zone of pulmonary consolidation or within a mass or nodule, produced by expulsion of the necrotic part of the lesion via the bronchial tree. Cavities may or may not contain a fluid level or internal opacity and are characterized with regard to wall thickness and character.
<b>Consolidation</b>	The process by which air in the lung is replaced by the products of disease rendering the lung solid (as in the case of pneumonia). Radiographically, consolidation is seen as relatively homogeneous opacity in the lung with little or no volume loss, effacement of pulmonary blood vessels, and sometimes the presence of the air bronchogram.
<b>Cyst</b>	A circumscribed space in the lung, 1 cm or more in diameter, containing gas or liquid, whose wall is generally thin, well defined, and composed of a variety of cellular elements.
<b>Density</b>	The opacity of a radiographic shadow to visible light. A qualitative expression of the degree of film blackening, usually expressed in terms of the blackening of one film or shadow with respect to another.

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<b>Differential x-ray absorption</b>	The process by which different numbers of x-ray photons are attenuated by matter, due to differences in the densities of the various components of the matter. When the attenuating matter is human tissue, the process of differential x-ray absorption is responsible for the creation of the radiographic image.
<b>Endobronchial spread</b>	Spread of infected material through the bronchial tree. Radiographically, endobronchial spread often appears as a collection of ill-defined nodules, commonly 4–8 mm in diameter, and often distributed in a segmental or lobar fashion. The nidus of infection, such as a cavity, may be evident. This pattern of disease spread is typical of bacterial causes of infection, including tuberculosis.
<b>Ground glass</b>	Any extended, finely granular pattern of pulmonary opacity within which normal anatomic details are partially (not completely) obscured. Compare with <i>consolidation</i> , in which the underlying anatomic details are completely obscured.
<b>Hematogenous dissemination</b>	Widely but discontinuously distributed throughout an organ or type of tissue. The pattern of hematogenous dissemination is the result of pathology delivered to an organ via the circulation. In the lung the pattern is usually one of well-defined nodules of various sizes distributed throughout the lung, perhaps with a slight basal predominance due to the relatively greater blood flow present in the bases.
<b>Honeycomb pattern</b>	A number of closely approximated ring shadows representing coalesced airspaces, usually lined with bronchiolar epithelium, 5–10 mm in diameter with walls 2–3 mm thick composed of dense fibrous tissue. This finding implies “end-stage” lung fibrosis.
<b>Hydropneumothorax</b>	The presence of both gas and fluid in the pleural cavity.
<b>Interface</b>	The boundary between the shadows of two juxtaposed structures or tissues of different texture or opacity.
<b>Interstitium</b>	A continuum of loose connective tissue throughout the lung comprising three subdivisions: the bronchovascular interstitium (surrounding the pulmonary arteries, veins, and bronchi), the parenchymal interstitium (between the alveolar and capillary basement membranes), and the subpleural interstitium (beneath the visceral pleural and within interlobular septa).
<b>Kerley’s line (septal line)</b>	A linear opacity which, depending on its location, extent, and orientation, may be further classified as follows:
- Kerley’s A line	An essentially straight linear opacity 2–6 cm long and 1–3 mm wide, usually situated in an upper lung zone, that points to the hilum centrally and is directed toward but does not extend to the pleural surface.
- Kerley’s B line	An essentially straight linear opacity 1.5–2 cm long and 1–2 mm wide, usually situated in the lung base and oriented at right angles to the pleural surface with which it is usually in contact peripherally.
- Kerley’s C line	A group of branching, linear opacities producing the appearance of a fine net, situated at the lung base and representing Kerley’s B lines seen <i>en face</i> .

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<b>Linear opacity</b>	A shadow resembling a line; an elongated opacity of uniform width, qualified with regard to length, width, orientation, and anatomic location.
<b>Lucency</b>	The ability to transmit light, and thus the ability to transmit x-radiation.
<b>Lymphadenopathy</b>	Any abnormality of lymph nodes, usually restricted to enlargement.
<b>Mass</b>	A pulmonary or pleural lesion represented in a radiograph by a discrete opacity 30 mm or greater in diameter, explicitly shown or presumed to be extended in all three dimensions. Should be qualified with regard to opacity (especially presence of calcification), homogeneity, border characteristics, location, and number.
<b>Miliary pattern</b>	A collection of tiny discrete pulmonary opacities that are generally uniform in size and widespread in distribution, each of which measures 2 mm or less in diameter. This pattern usually implies a bloodborne source (see <i>hematogenous dissemination</i> ).
<b>Nodular pattern</b>	A collection of innumerable small, roughly circular, discrete pulmonary opacities ranging in size from 2–10 mm, generally uniform in size and widespread in distribution.
<b>Nodule</b>	Any pulmonary or pleural lesion represented in a radiograph by a discrete opacity 2-30 mm diameter, explicitly shown or presumed to be extended in all three dimensions. Should be qualified with regard to opacity (especially presence of calcification), homogeneity, border characteristics, location, and number.
<b>Opacity</b>	The capacity to attenuate an x-ray beam; the degree of attenuation of the x-ray beam, usually expressed in terms of the attenuation of one absorber to another. In a radiograph, an opacity is a circumscribed area that appears nearly white (i.e., denser) than its surroundings. Use of the term opacity does not imply location; opacity may be parenchymal, pleural, within the chest wall, or external to the patient.
<b>Parenchyma</b>	The gas-exchanging portion of the lung, consisting of alveoli and their capillaries, estimated to constitute approximately 90% of total lung volume. On a radiograph, pulmonary parenchyma appears as lung exclusive of visible pulmonary vessels and airways.
<b>Photon</b>	In physics, a corpuscle of energy or particle, a quantum of light energy.
<b>Pleural effusion</b>	The presence of fluid within the pleural space.
<b>Pleural thickening</b>	An increase in thickness of the pleura, usually resulting from prior inflammation with subsequent fibrosis or tumor. The presence of pleural thickening may be suggested when pleural opacity is stable for long periods of time on serial radiographs (usually over a period of months or years) or when the pleural opacity fails to demonstrate mobility on decubitus radiographs. Note that in the latter circumstance, loculated pleural fluid collections may behave similarly, and thus the lack of mobility of a pleural opacity with decubitus radiographs is not pathognomonic for pleural thickening.
<b>Post-primary tuberculosis (reactivation TB)</b>	The development of tuberculosis one or more years after initial infection, usually appearing as nodular and linear areas of increased opacity in the upper lobes, often with cavitation.
<b>Primary tuberculosis</b>	Direct progression of the initial infection with <i>M. tuberculosis</i> , usually appearing as consolidation in the lower lobes, often accompanied by hilar and mediastinal lymphadenopathy and pleural effusion.

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<b>Reticular pattern (reticulation)</b>	A collection of innumerable small linear opacities that together produce the appearance of a net.
<b>Reticulonodular pattern</b>	A collection of innumerable small linear and small nodular opacities that together produce a composite appearance resembling a net with small superimposed nodules. The linear and nodular elements are usually similar in magnitude.
<b>Retrosternal clear space</b>	The lung parenchyma visible on the lateral radiograph posterior to the sternum. Usually only a few pulmonary blood vessels are visible in this region.
<b>Right paratracheal stripe</b>	A vertically oriented linear opacity 2–3 mm wide that extends from the thoracic inlet to the right tracheobronchial angle on the frontal radiograph. It is situated between the air shadow of the trachea and the right lung and is formed by the right wall of the trachea and contiguous mediastinal tissue and adjacent pleura.
<b>Scatter</b>	Pertaining to radiography, <i>scatter</i> refers to radiation that enters a patient and is deflected from its initial course but that may still contact and expose the x-ray film. Scatter radiation contributes to the patient radiation dose and degrades the radiographic image.
<b>Septal line</b>	A generic term for fine linear opacities of varied distribution produced by the interstitium between pulmonary lobules when the interstitium is thickened by fluid, dust deposition, cellular material, etc. See also <i>Kerley's lines</i> .
<b>Silhouette sign</b>	The effacement of an anatomic soft tissue border by consolidation of the adjacent lung or accumulation of fluid in the contiguous pleural space. This is a sign of conformity, and, hence, of the probable adjacency of a pathologic opacity to a known structure. The silhouette sign is useful for detecting and localizing consolidation along the axis of the x-ray beam.
<b>Stripe</b>	An extended, longitudinal, composite opacity 2–5 mm wide, used as a descriptor of shadows created by mediastinal structures.
<b>Unabsorbed</b>	Pertaining to radiography, the term <i>unabsorbed</i> refers to that portion of the x-ray beam that traverses the patient and does not interact with the patient's tissues. These x-ray photons pass through the patient unaffected and expose the x-ray film, thereby contributing to the creation of the radiographic image.

## ***Glossary References***

Tuddenham WJ, and the Nomenclature Committee of the Fleischner Society. Glossary of terms for thoracic radiology: recommendations of the Nomenclature Committee of the Fleischner Society. *Am J Roentgenol*. 1984;143:509-517.