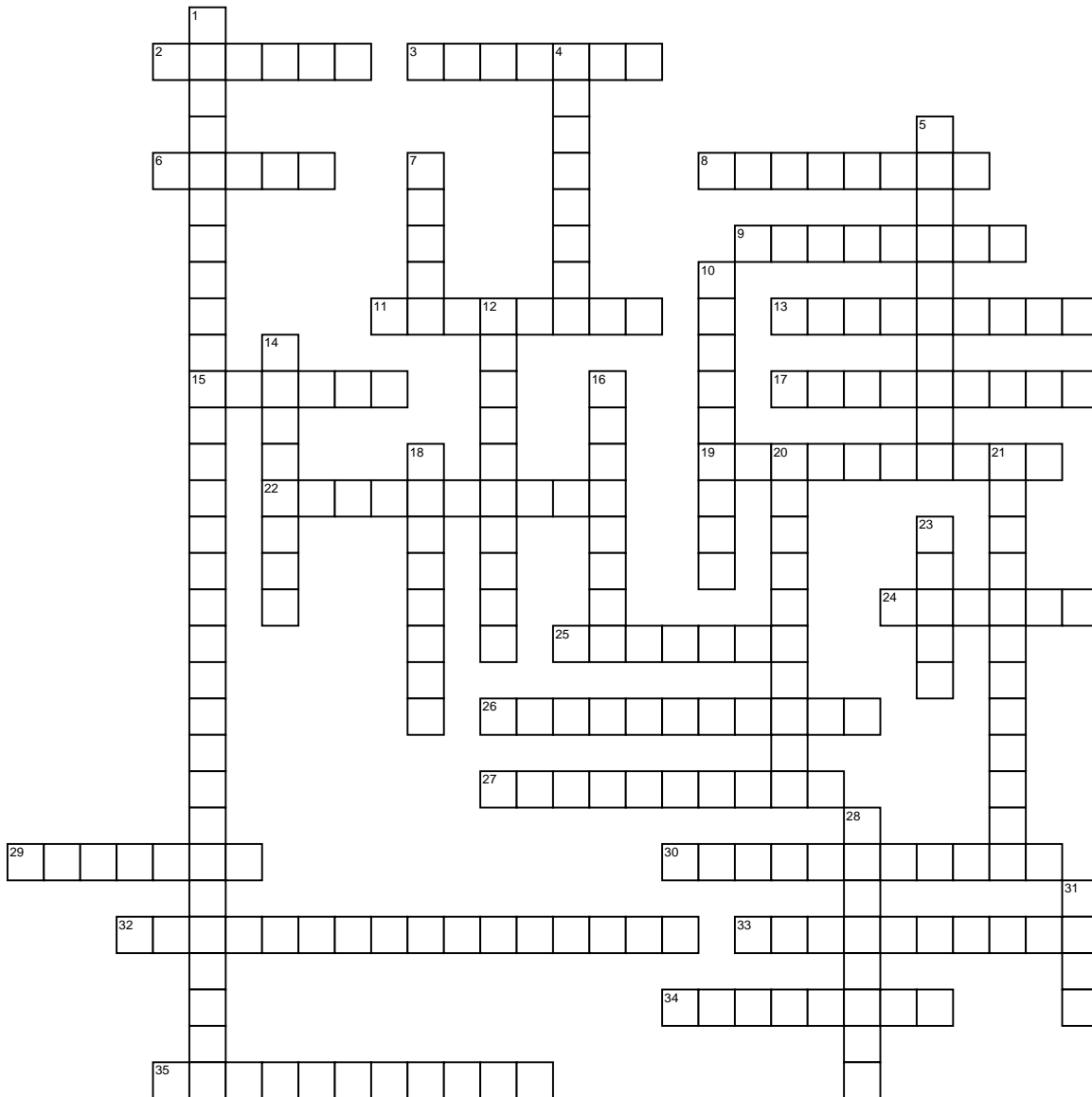


# Respiratory System



## ACROSS

- 2 Respiratory \_\_\_\_\_ volume is the volume of air which can be inhaled or exhaled from a person's lungs in sixty seconds.
- 3 A \_\_\_\_\_ is one of the two channels of the nose, from the point where they bifurcate to the external opening.
- 6 \_\_\_\_\_ cells are non-mucous and non-ciliated secretory cells found in the primary bronchioles of the lungs.
- 8 The \_\_\_\_\_ bronchi arise from the secondary bronchi.
- 9 A \_\_\_\_\_ bronchiole is a bronchiole at the end of the conducting zone.
- 11 \_\_\_\_\_ ducts are the tiny end tubules of the branching airways that fill the lungs.
- 13 The \_\_\_\_\_ is a sheet of muscle extending across the bottom of the ribcage which separates the thoracic cavity from the abdominal cavity and performs an important function in respiration.
- 15 The \_\_\_\_\_, colloquially known as the voicebox, is an organ in the neck of mammals involved in protection of the trachea and sound production.
- 17 \_\_\_\_\_ circulation is the portion of the cardiovascular system which carries oxygen-depleted blood away from the heart, to the lungs, and returns oxygenated blood back to the heart.
- 19 \_\_\_\_\_ is the most common of the Pulmonary Function Tests (PFTs), measuring lung function, specifically the measurement of the amount and/or speed of air that can be inhaled and exhaled.
- 22 Compliance is the ability of the lungs to stretch in a change in volume relative to an applied change in pressure.
- 24 The nasal \_\_\_\_\_, or nasal fossa, is a large air-filled space above and behind the nose in the middle of the face.
- 25 The \_\_\_\_\_, or windpipe, is a tube that extends from the larynx to the primary bronchi.

- 26** \_\_\_\_\_ rate is the rate at which gas enters or leaves the lung.
- 27** Pulmonary \_\_\_\_\_ is a surface-active lipoprotein complex formed by type II alveolar cells which reduces surface tension in the air water interface within alveoli.
- 29** Pulmonary \_\_\_\_\_ receptors are mechanoreceptors found in the lungs, which when the lung expands, initiate the Hering-Breuer reflex, reducing the respiratory rate.
- 30** The \_\_\_\_\_ system consists of the airways, the lungs, and the muscles that mediate the movement of air into and out of the body.
- 32** Each of the tertiary bronchi serves a specific \_\_\_\_\_ segment, and each of these segments have their own artery.
- 33** A respiratory \_\_\_\_\_ is an airway at the beginning of the respiratory zone.
- 34** The left main \_\_\_\_\_ is smaller in caliber but longer than the right, entering the root of the left lung opposite the sixth thoracic vertebra.
- 35** The \_\_\_\_\_ quotient is a unitless number used in calculations of basal metabolic rate when estimated from carbon dioxide production.

## DOWN

- 1** \_\_\_\_\_ (DPPC) is a phospholipid and the major constituent of pulmonary surfactant.
- 4** Functional \_\_\_\_\_ capacity is the volume of air present in the lungs at the end of passive expiration.
- 5** The primary \_\_\_\_\_s arise from the tertiary bronchi.
- 7** \_\_\_\_\_ capacity is the maximum volume of air that a person can exhale after maximum inhalation.
- 10** \_\_\_\_\_ capacity is a measurement of the lung's ability to transfer gases.
- 12** \_\_\_\_\_, or expiration, is the movement of air out of the bronchial tubes, through the airways, to the external environment during breathing.
- 14** A \_\_\_\_\_ is a caliber of airway in the respiratory tract that conducts air into the lungs.
- 16** \_\_\_\_\_ bodies, or keratinosomes, are secretory organelles found in type II pneumocytes which deliver pulmonary surfactant after being released from the cell.
- 18** The \_\_\_\_\_-capillary barrier exists in the gas exchanging region of the lungs, preventing air bubbles from forming in the blood and preventing blood from entering the alveoli.
- 20** \_\_\_\_\_, also known as inspiration, is the movement of air from the external environment, through the airways, into the alveoli during breathing.
- 21** A \_\_\_\_\_ is a device used to measure the rate of respiration of a living organism by measuring its rate of exchange of oxygen and carbon dioxide.
- 23** In humans the respiratory \_\_\_\_\_ is the part of the anatomy that has to do with the process of respiration.
- 28** The right main \_\_\_\_\_ is wider, shorter, and more vertical in direction than the left, entering the right lung nearly opposite the fifth thoracic vertebra.
- 31** \_\_\_\_\_ space is air that is inhaled by the body in breathing, but does not partake in gas exchange.