

FIGURE 17-1

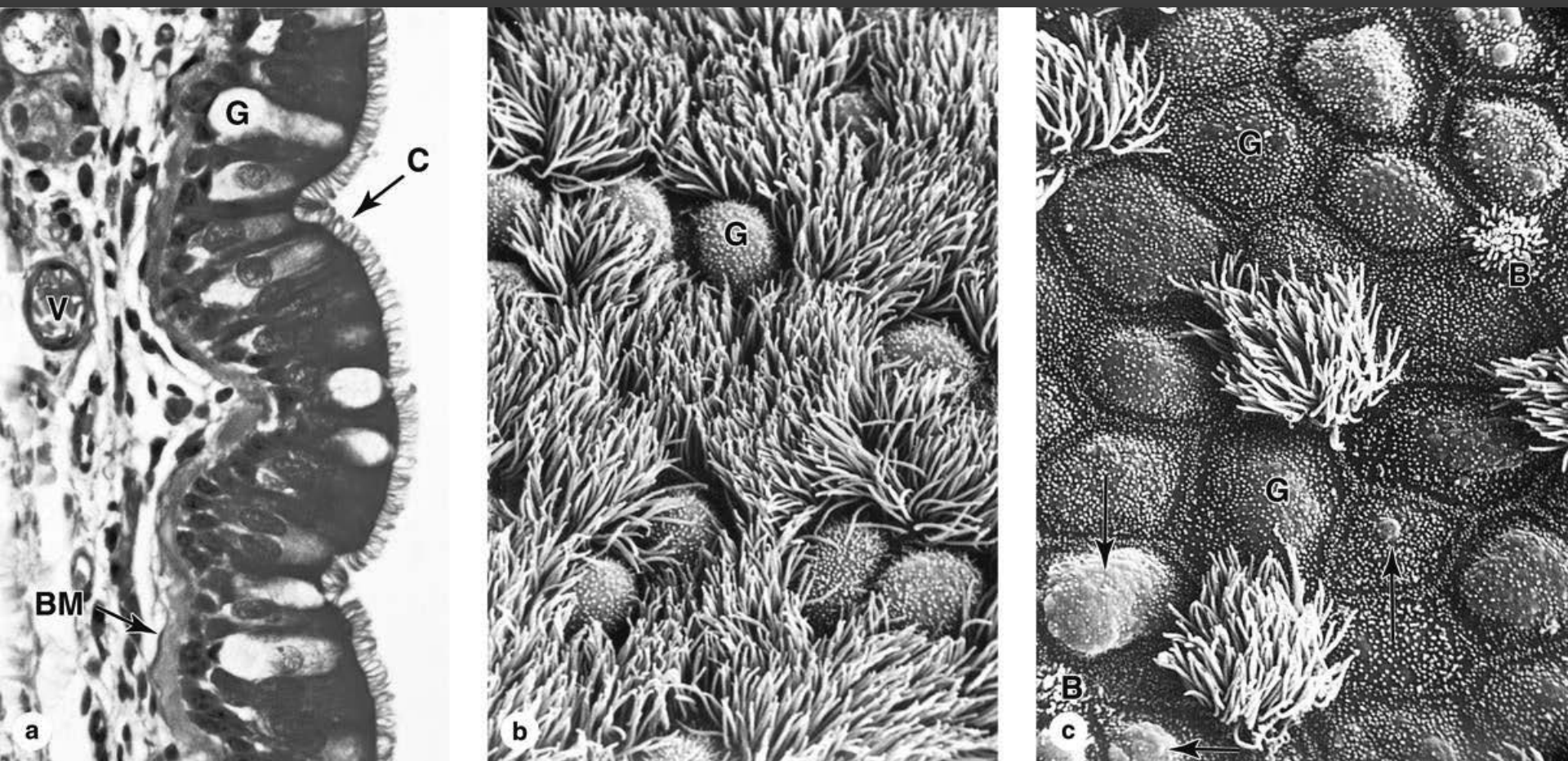
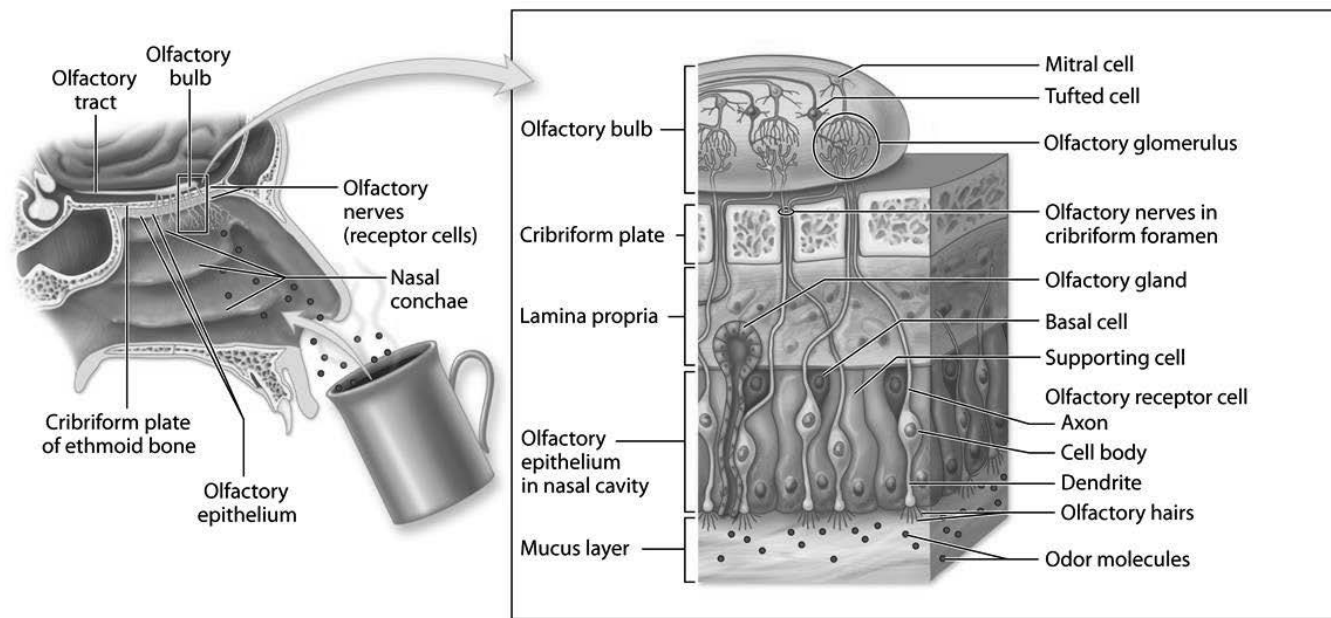
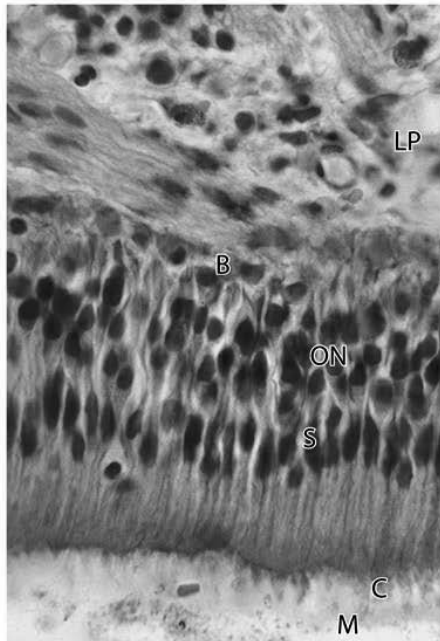


FIGURE 17-2



a



b

FIGURE 17-3

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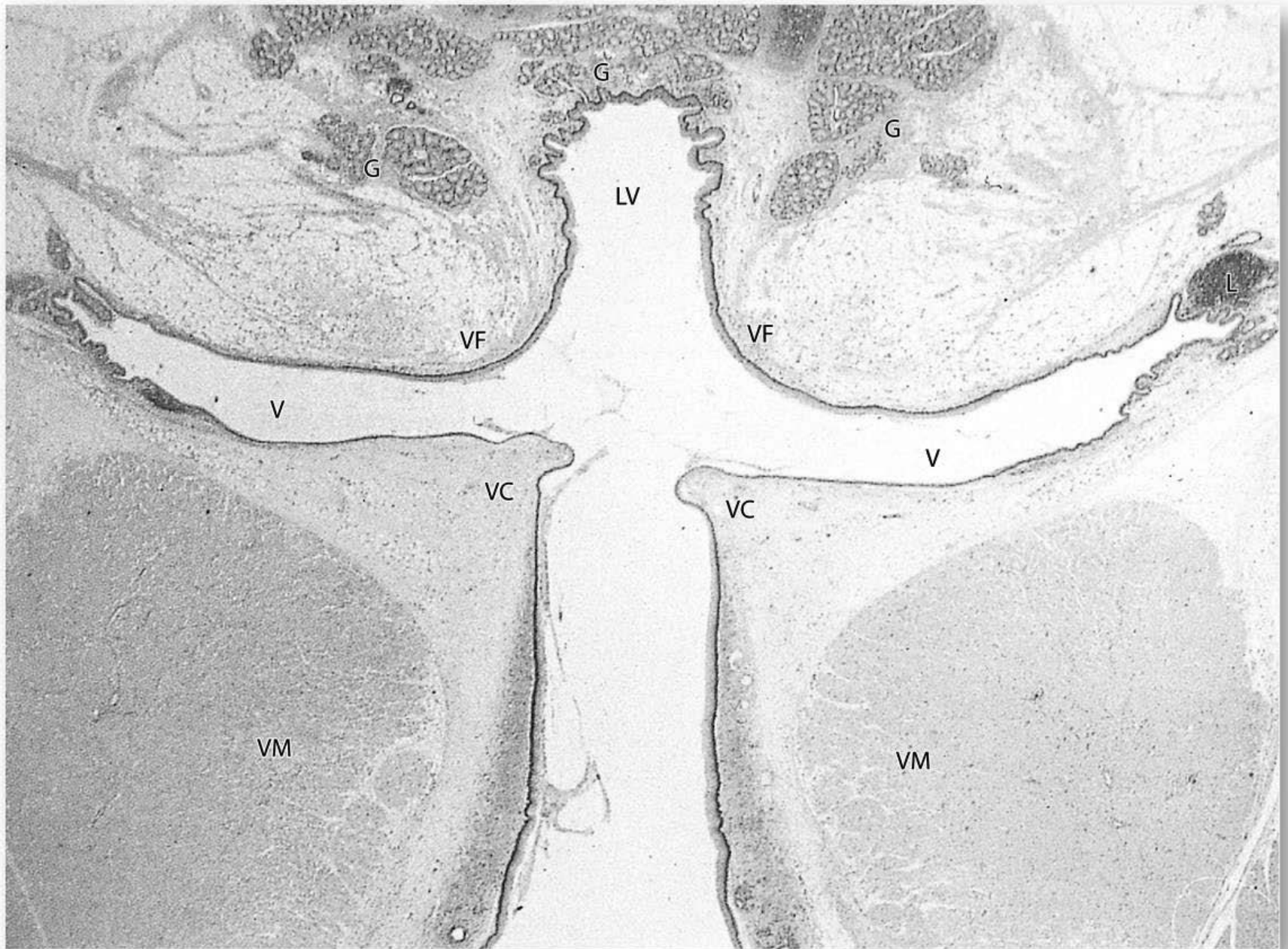


FIGURE 17-4

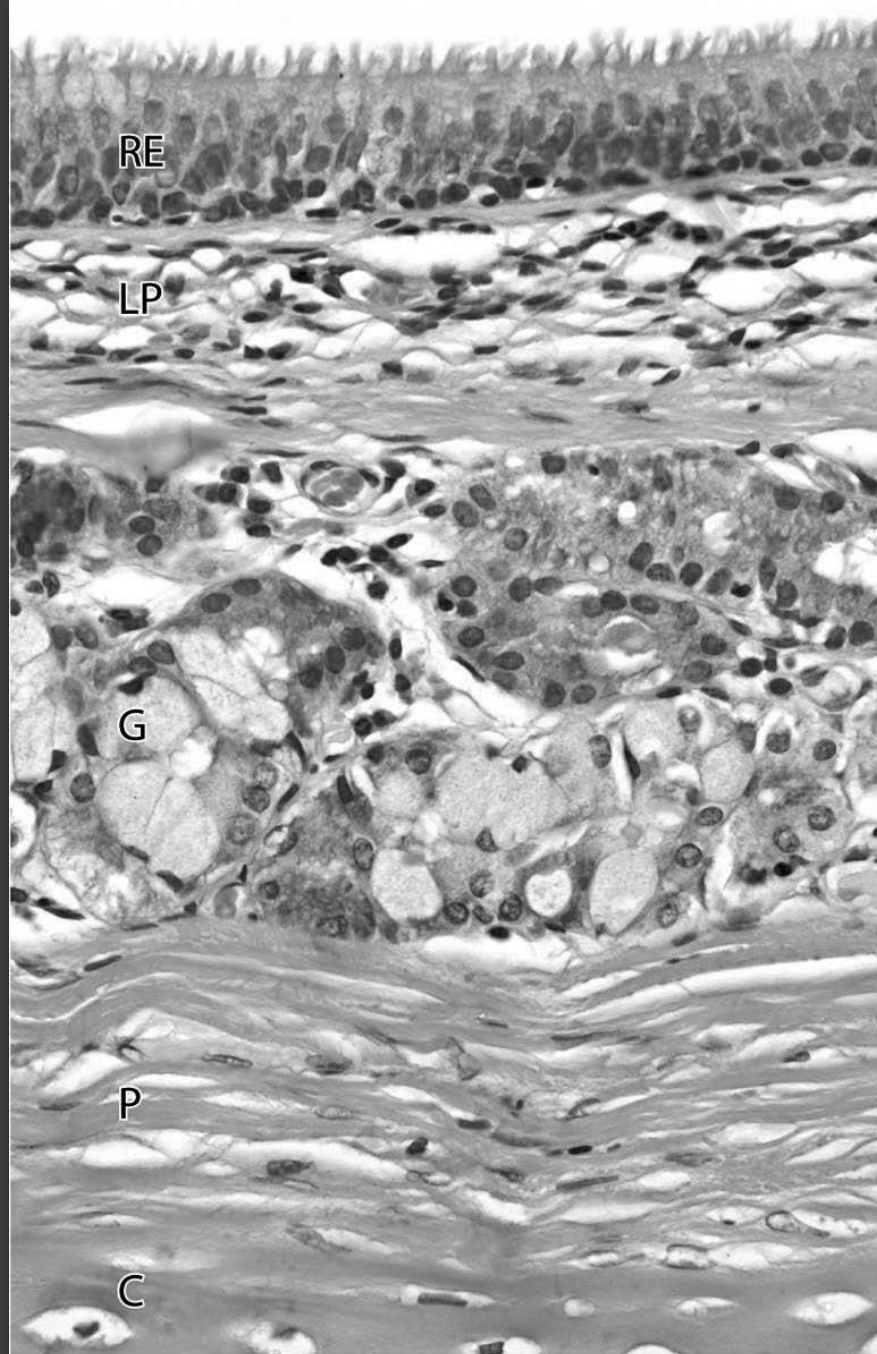


FIGURE 17-5

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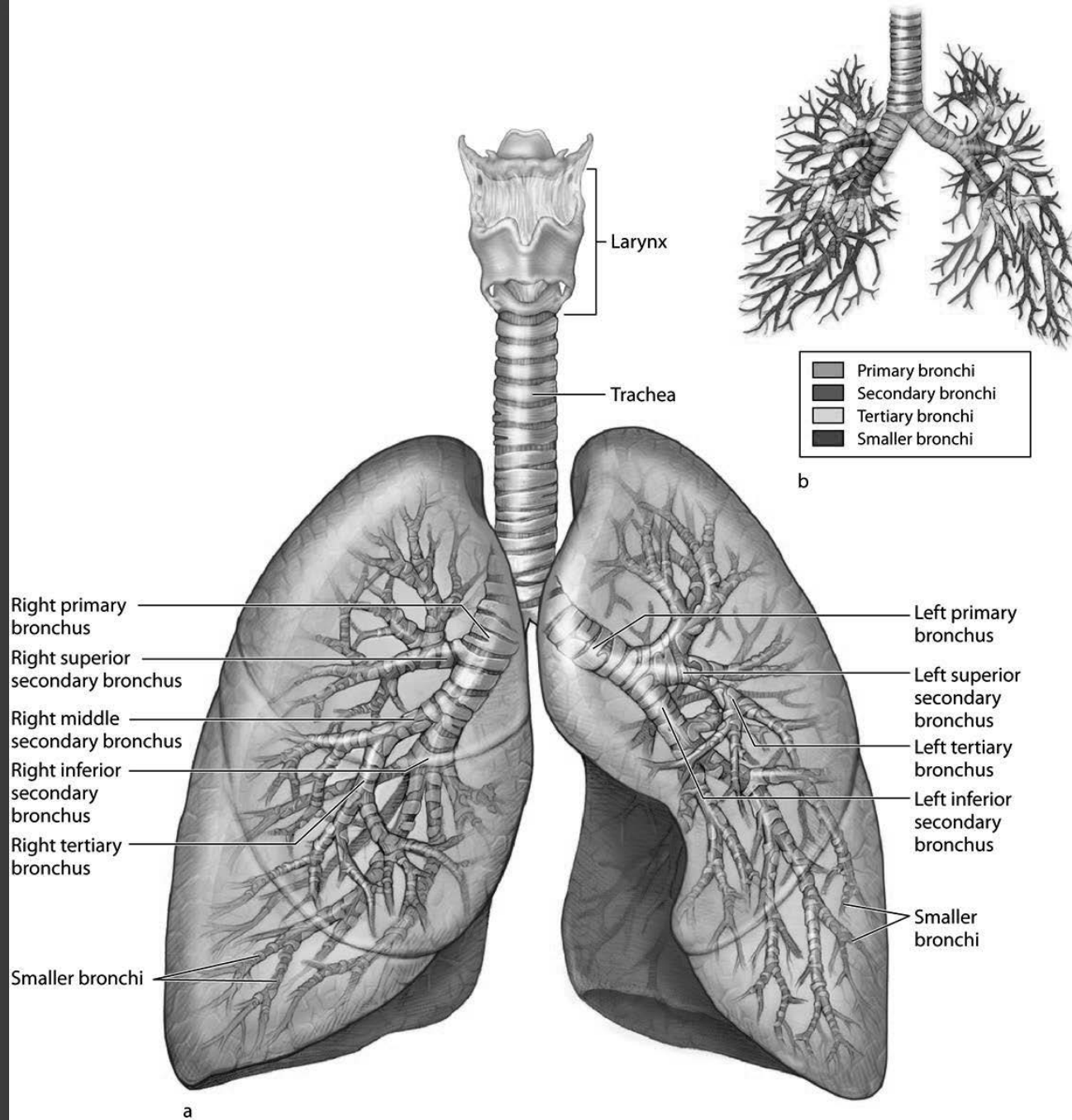


FIGURE 17-6

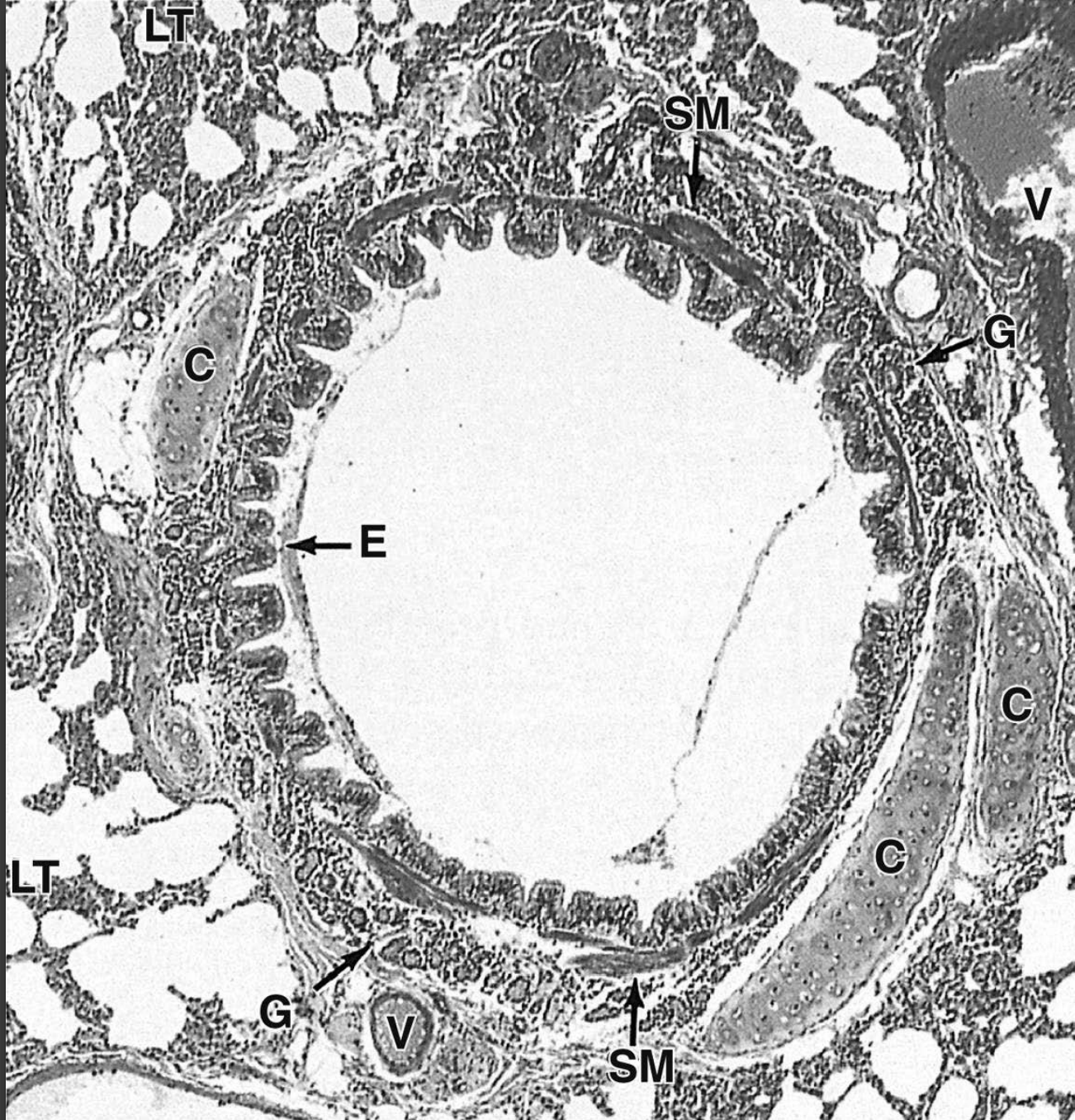


FIGURE 17-7

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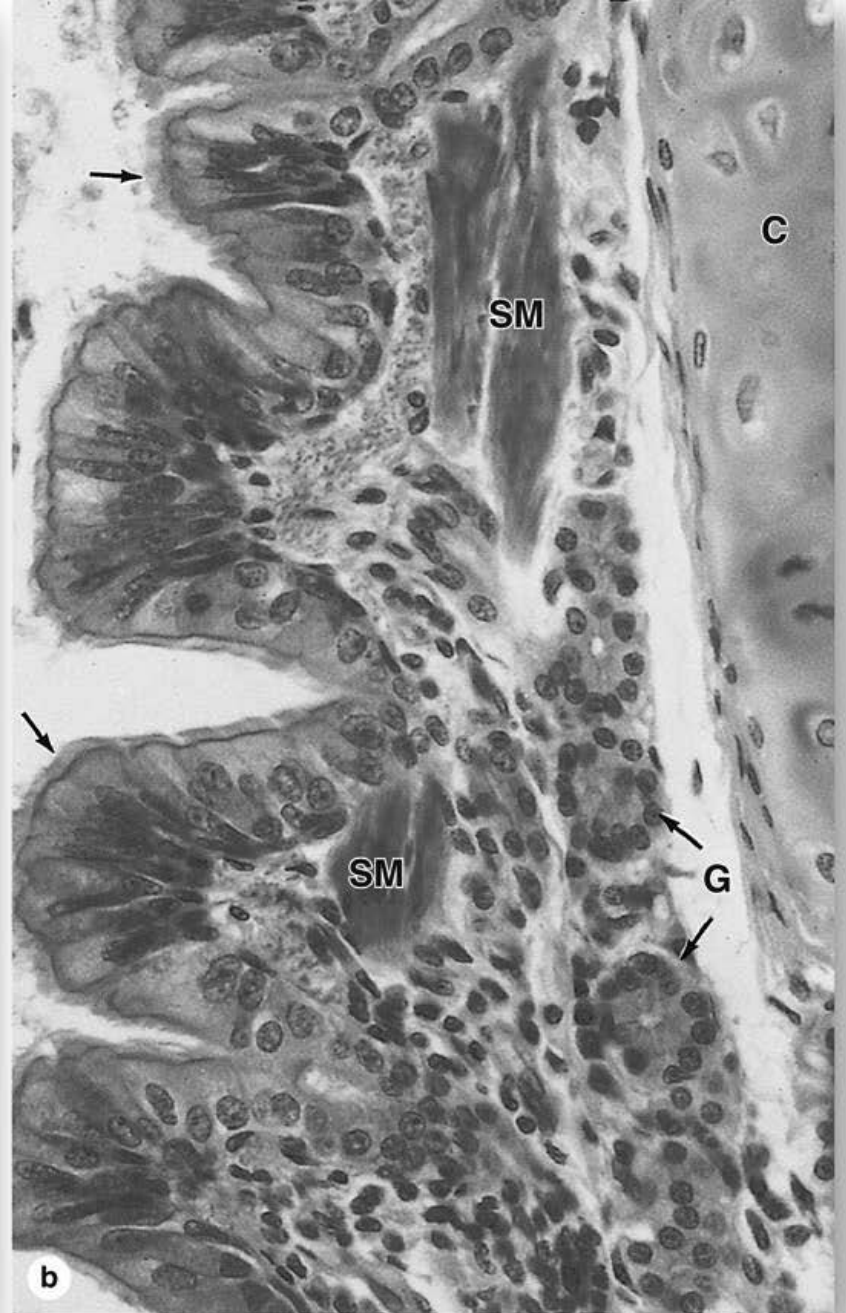
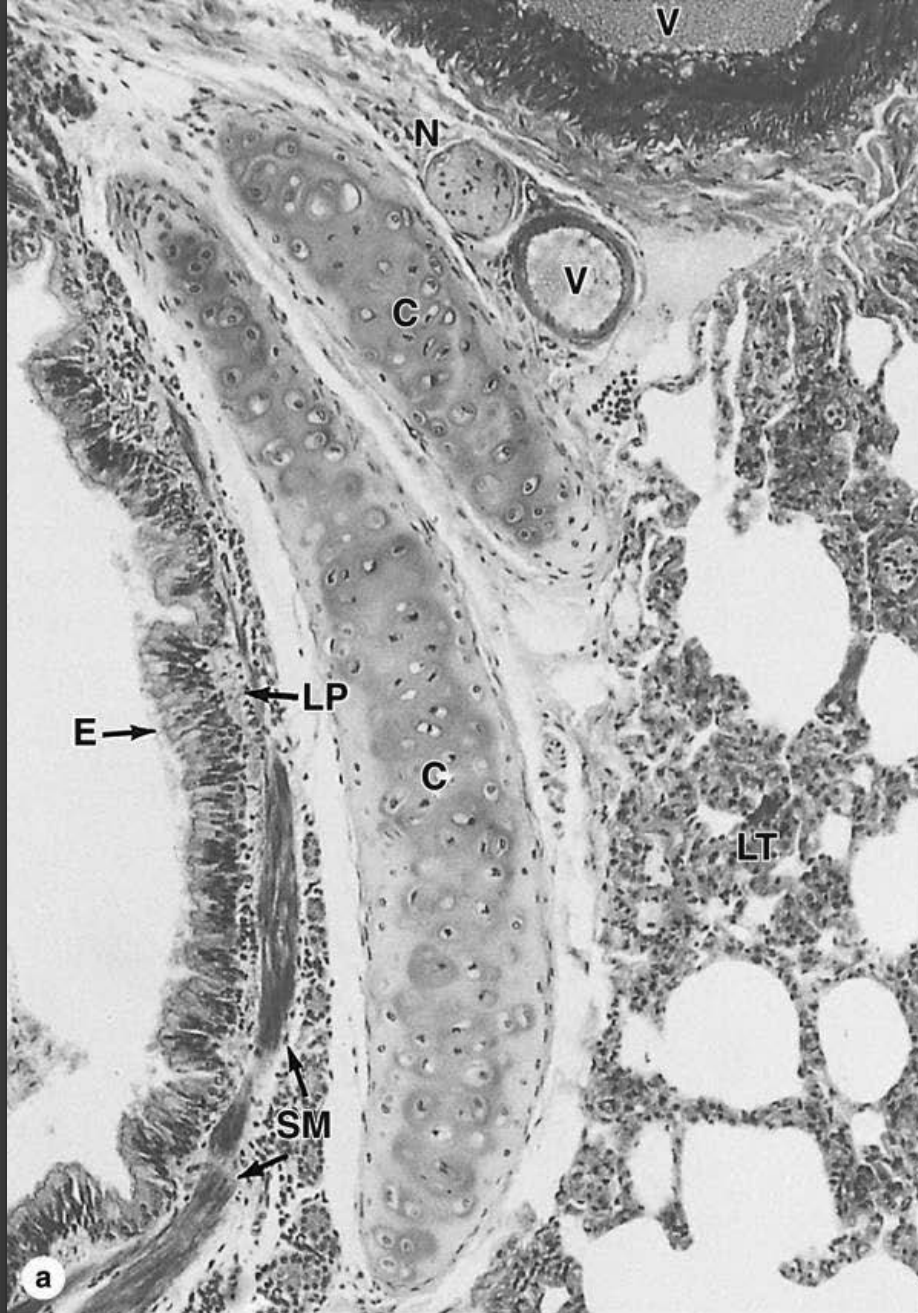


FIGURE 17-8

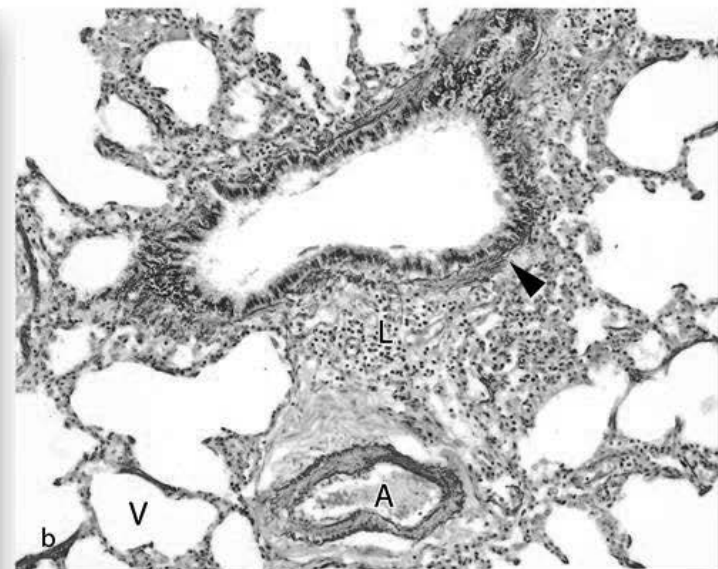
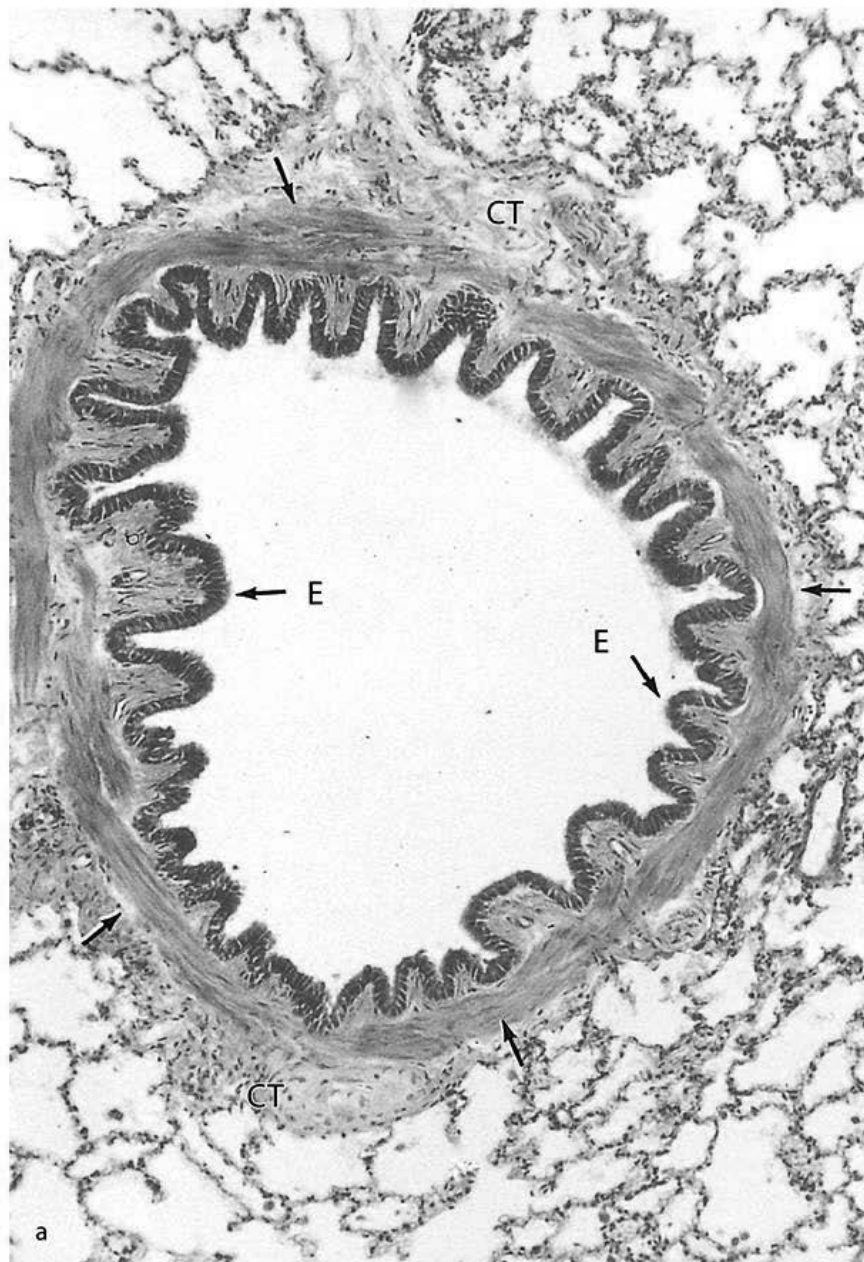


FIGURE 17-9

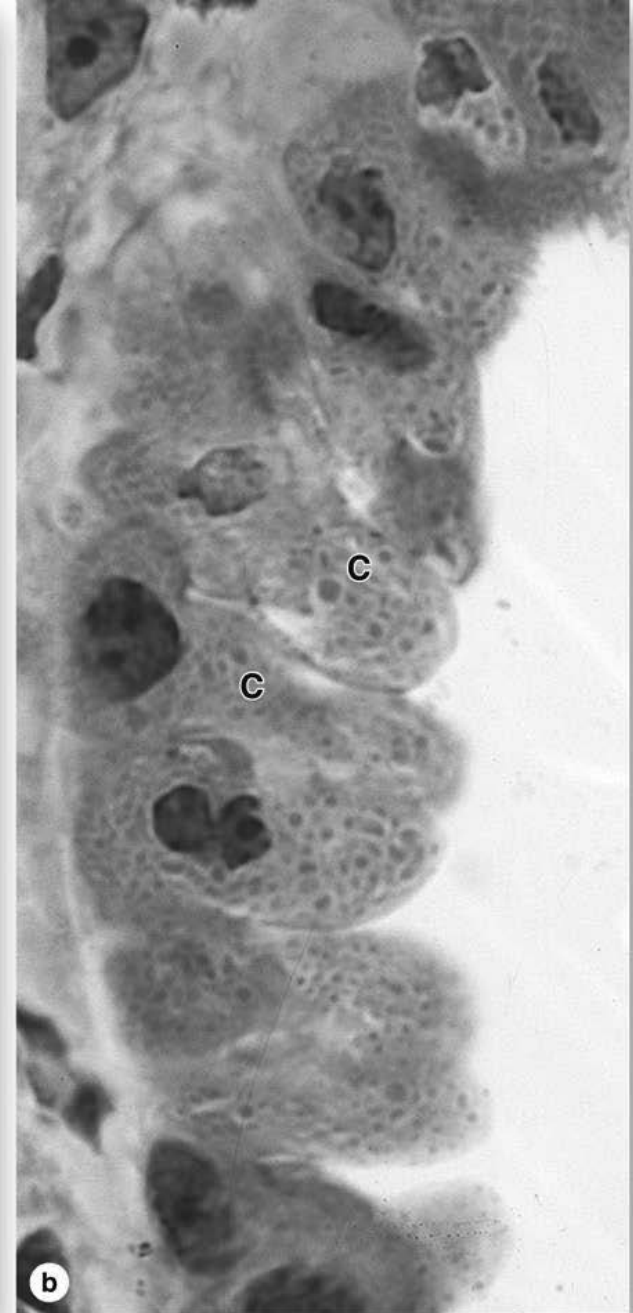
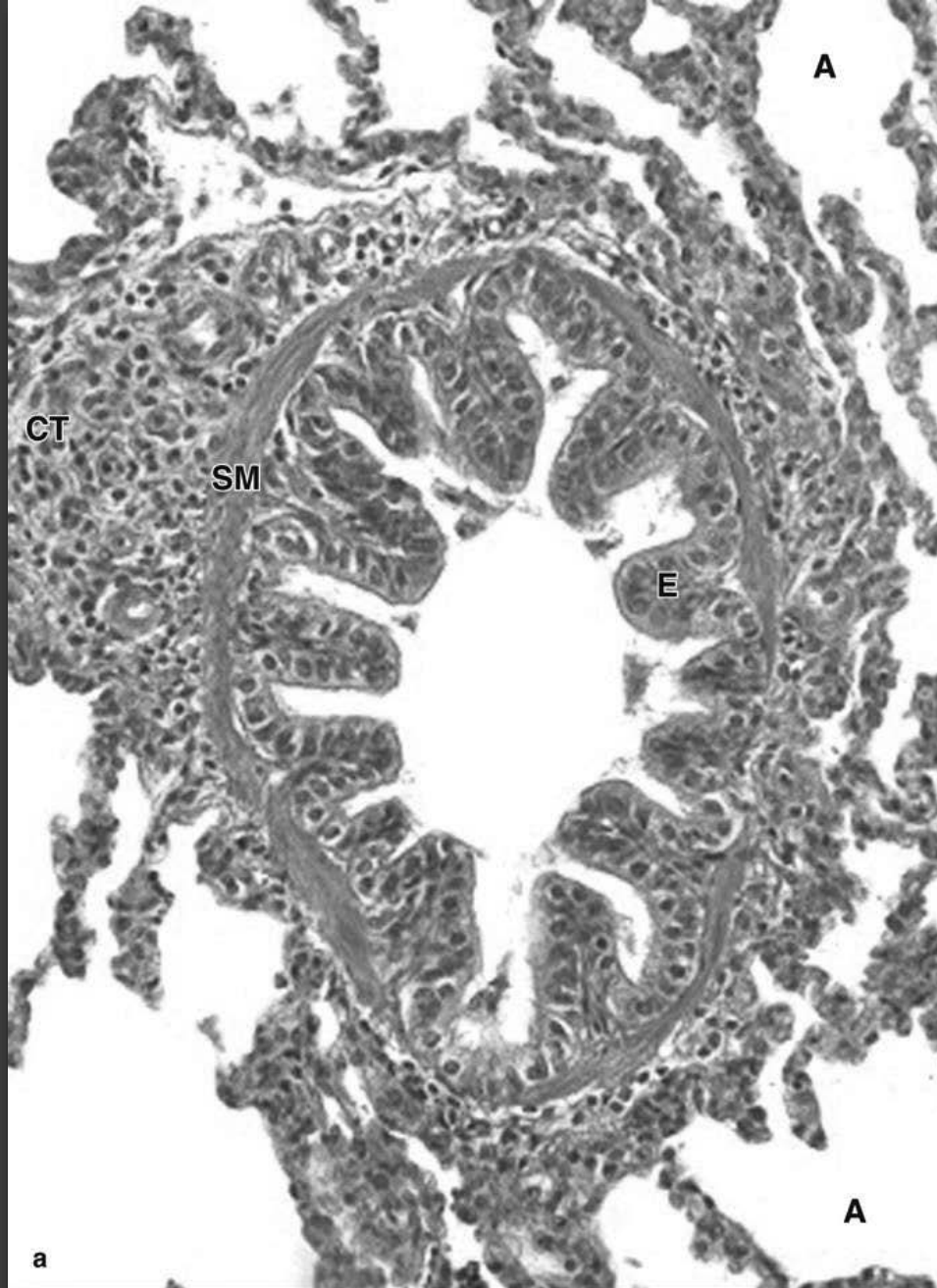
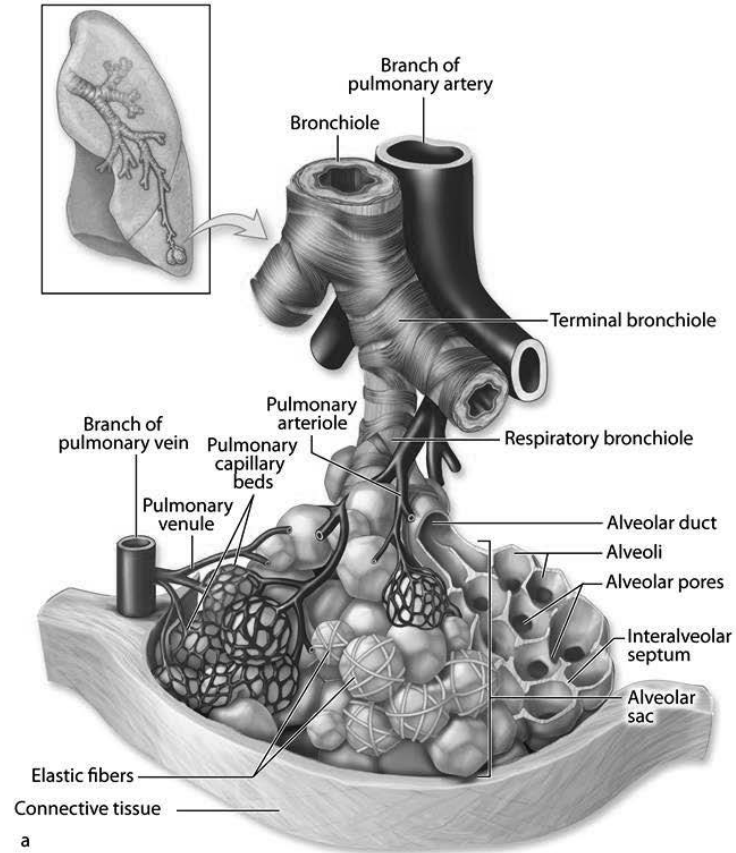
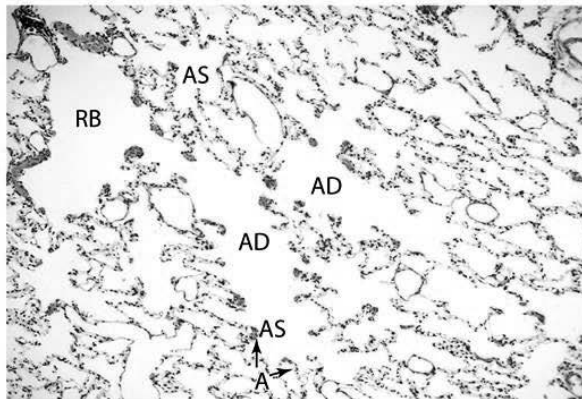


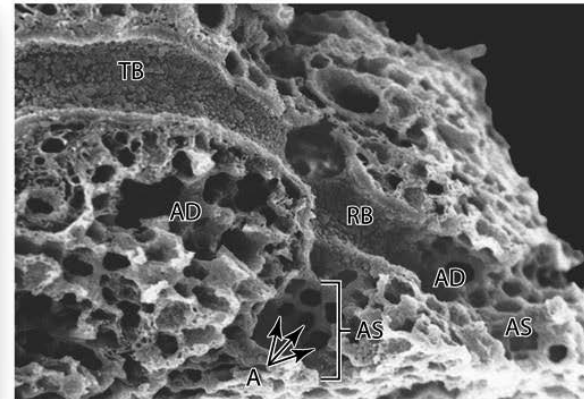
FIGURE 17-10



a



b



c

FIGURE 17-11

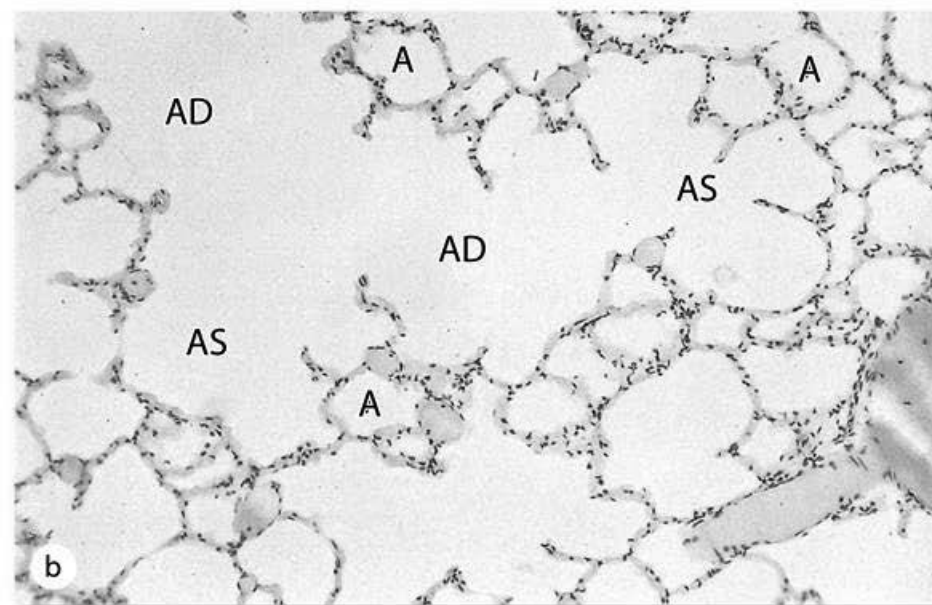
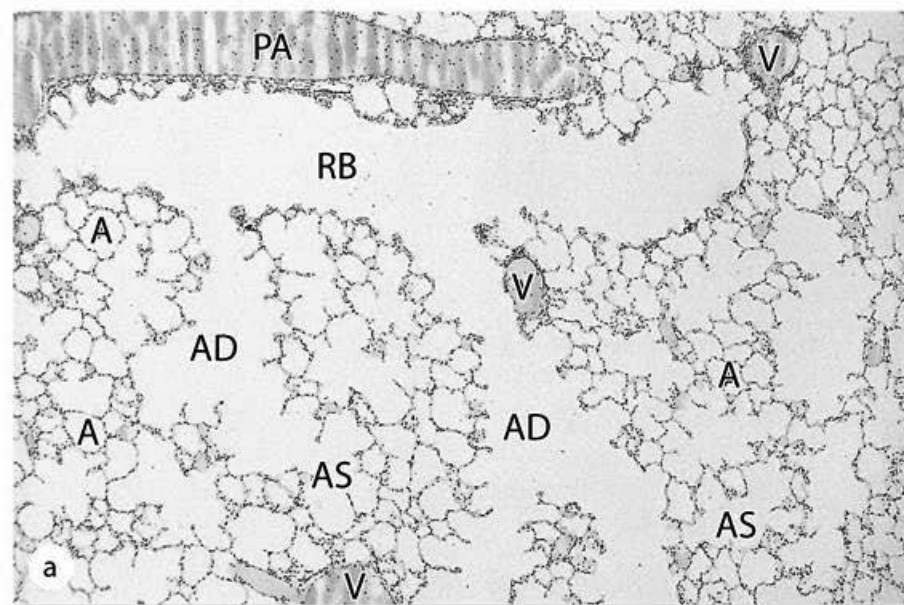


FIGURE 17-12

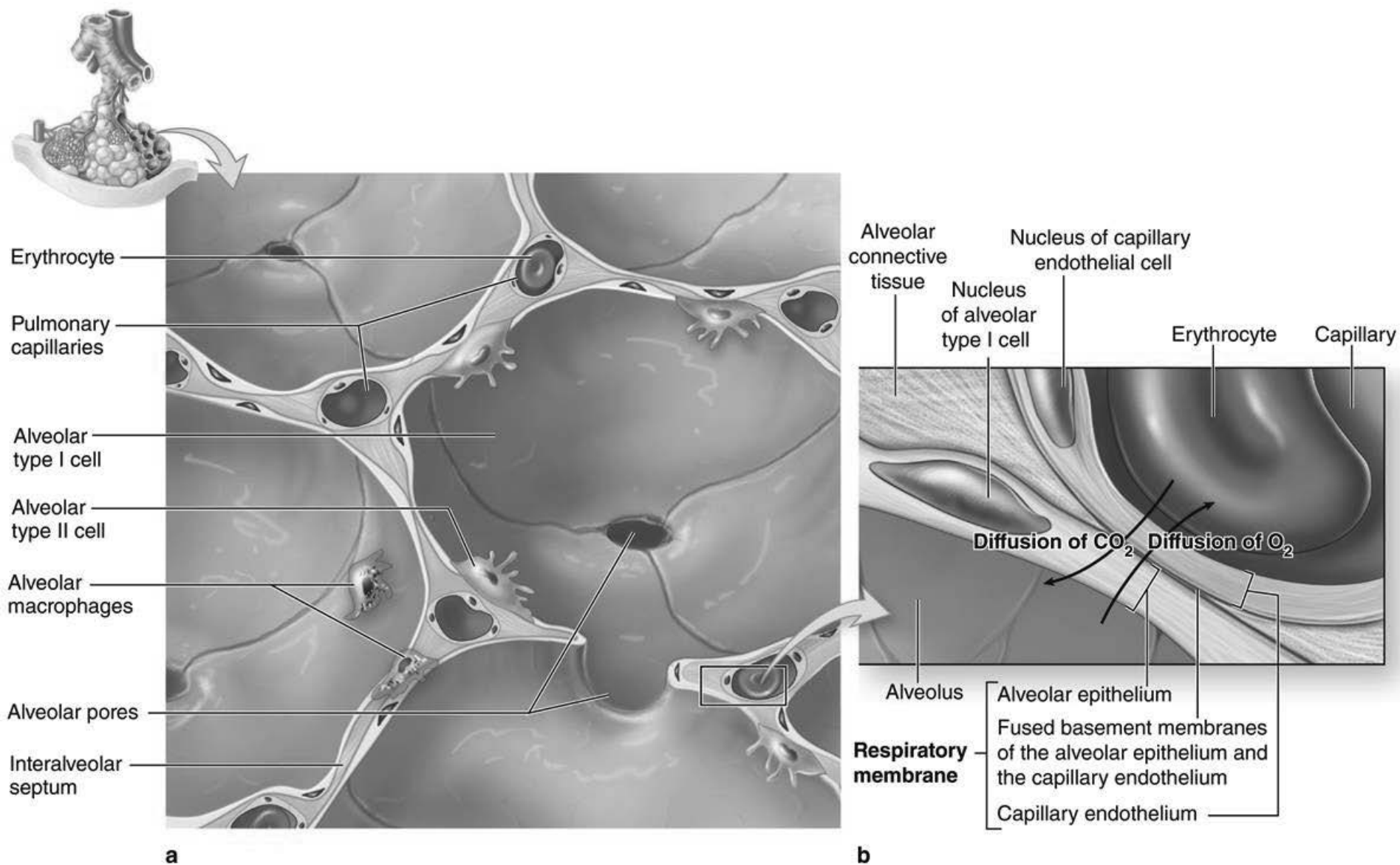


FIGURE 17-13

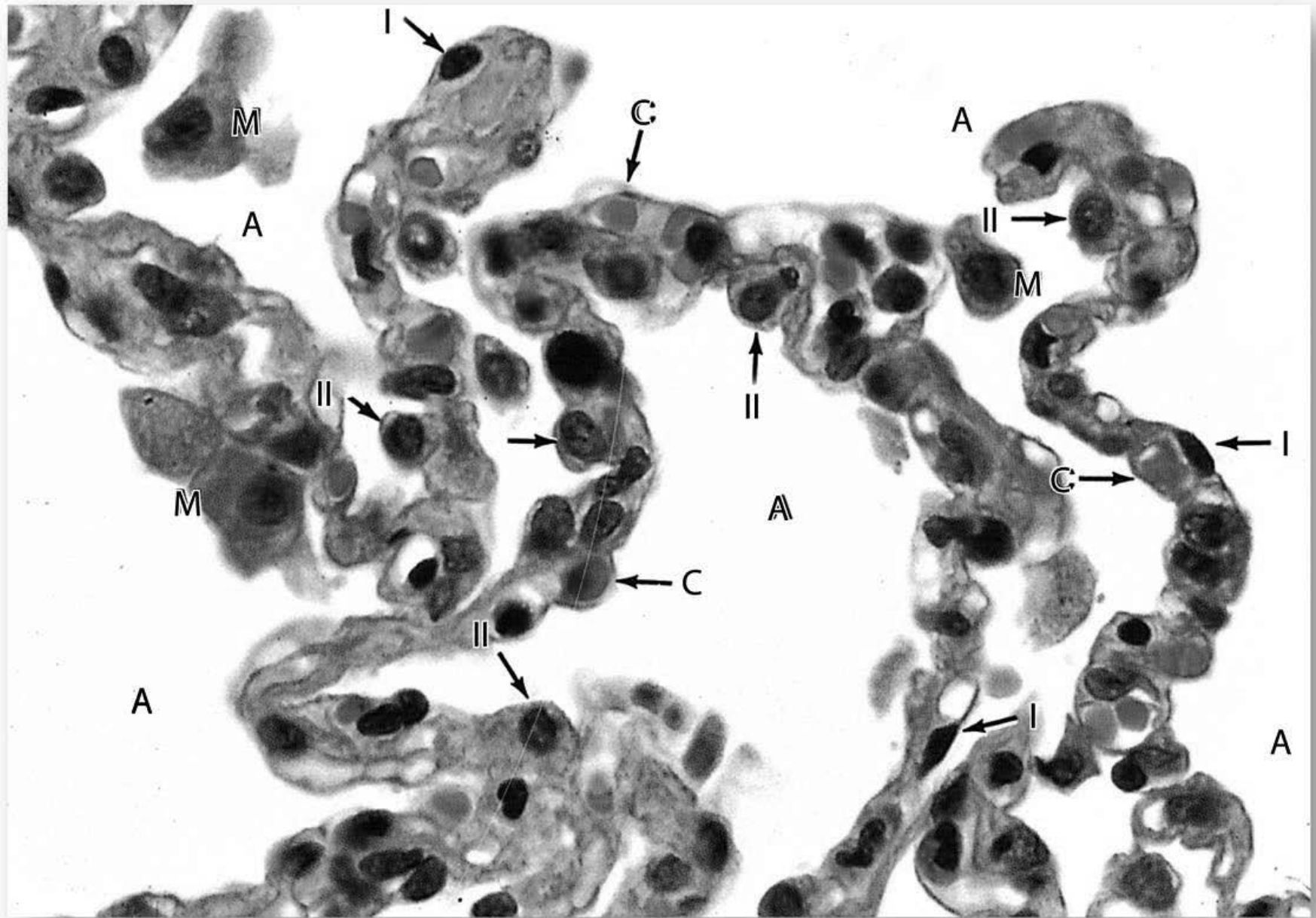


FIGURE 17-14

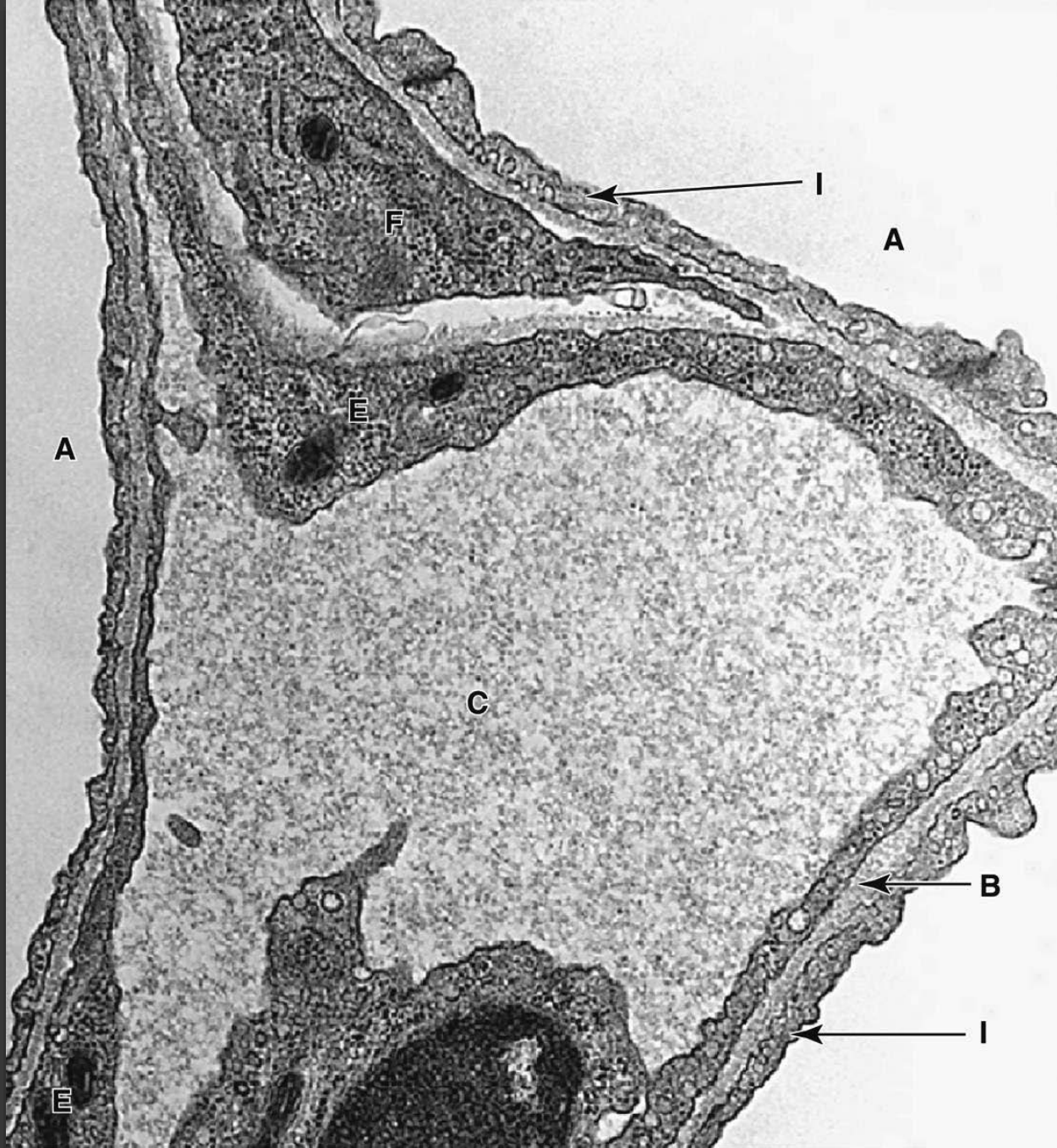


FIGURE 17-15

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FIGURE 17-16

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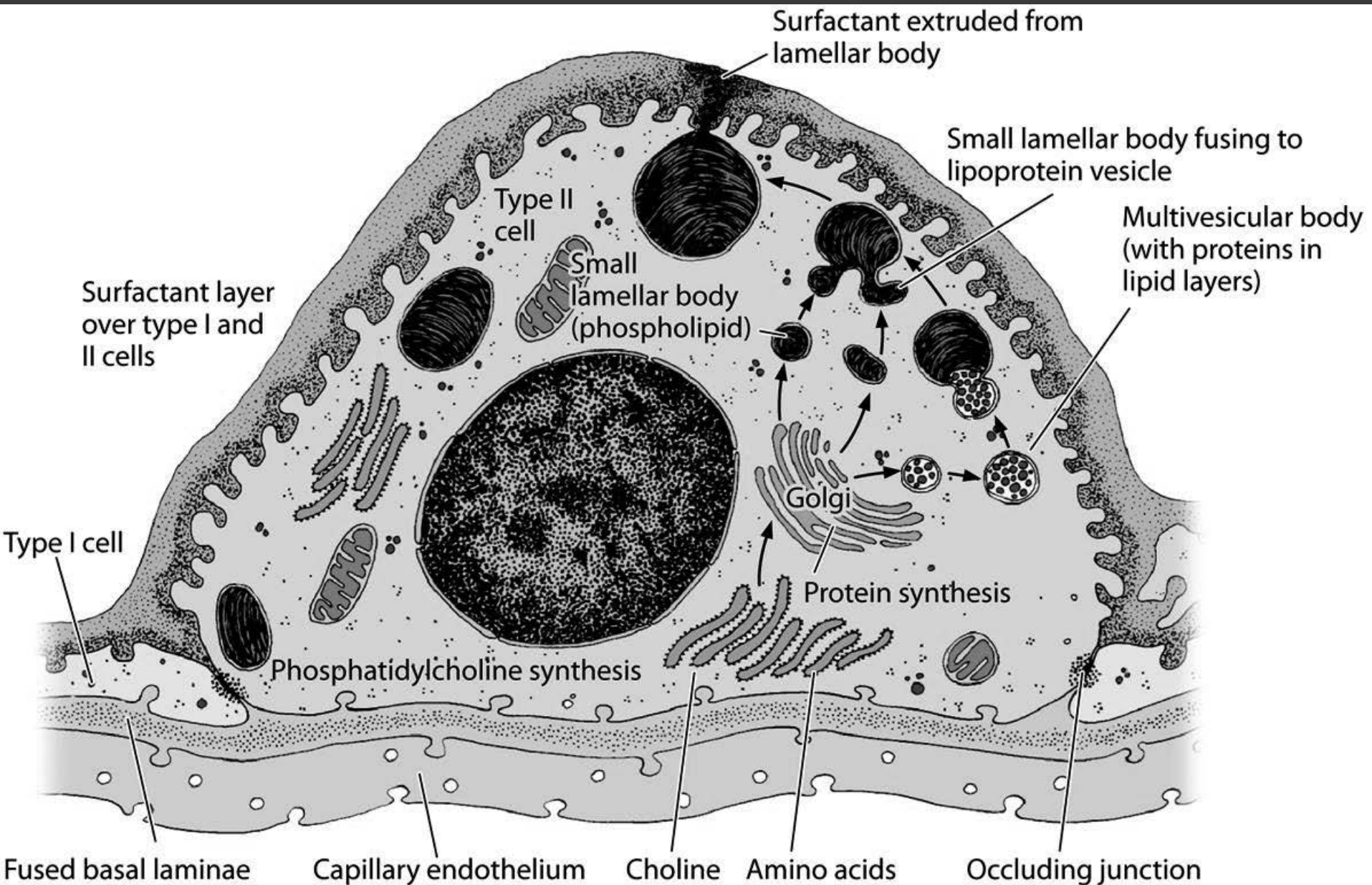
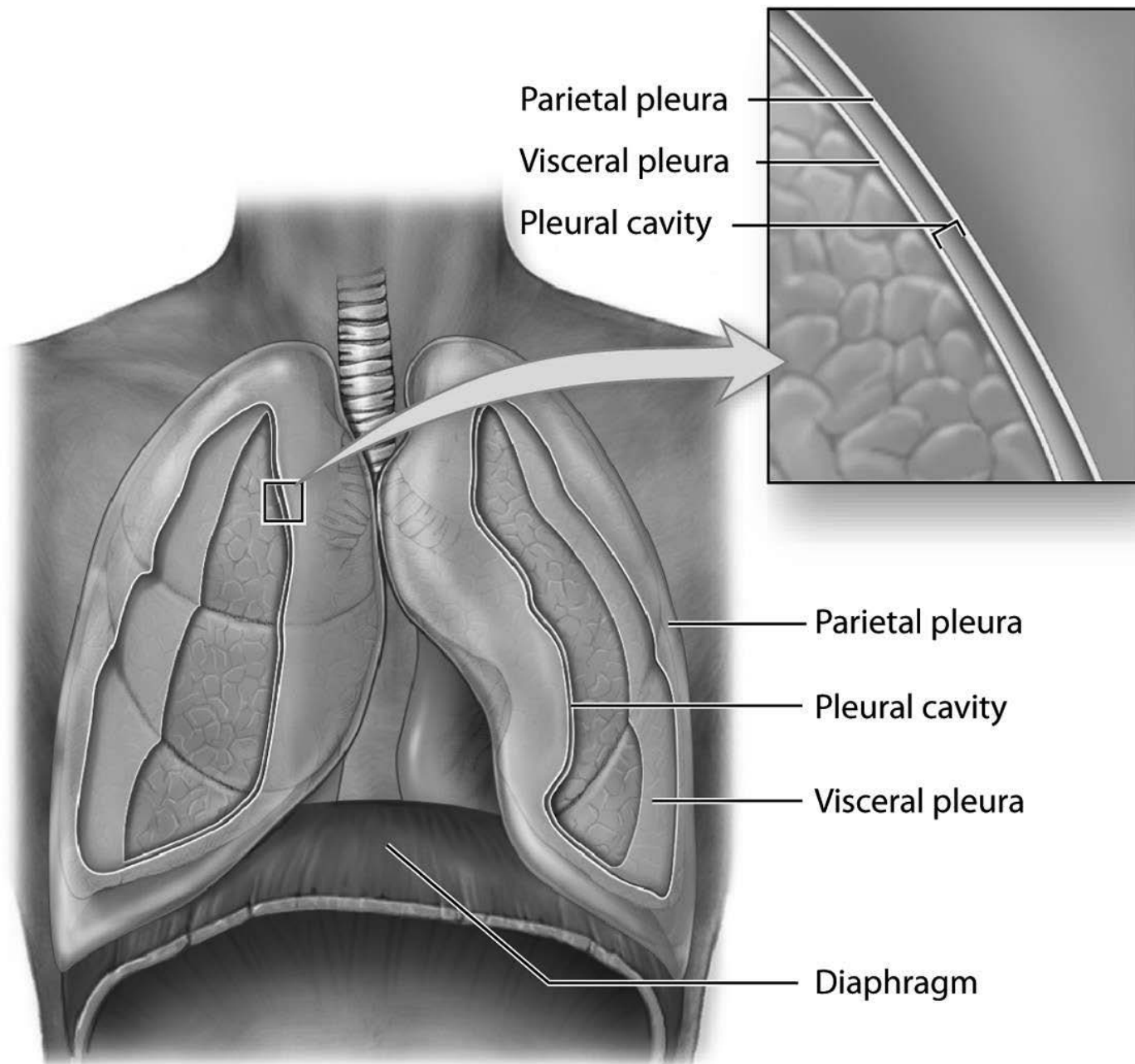
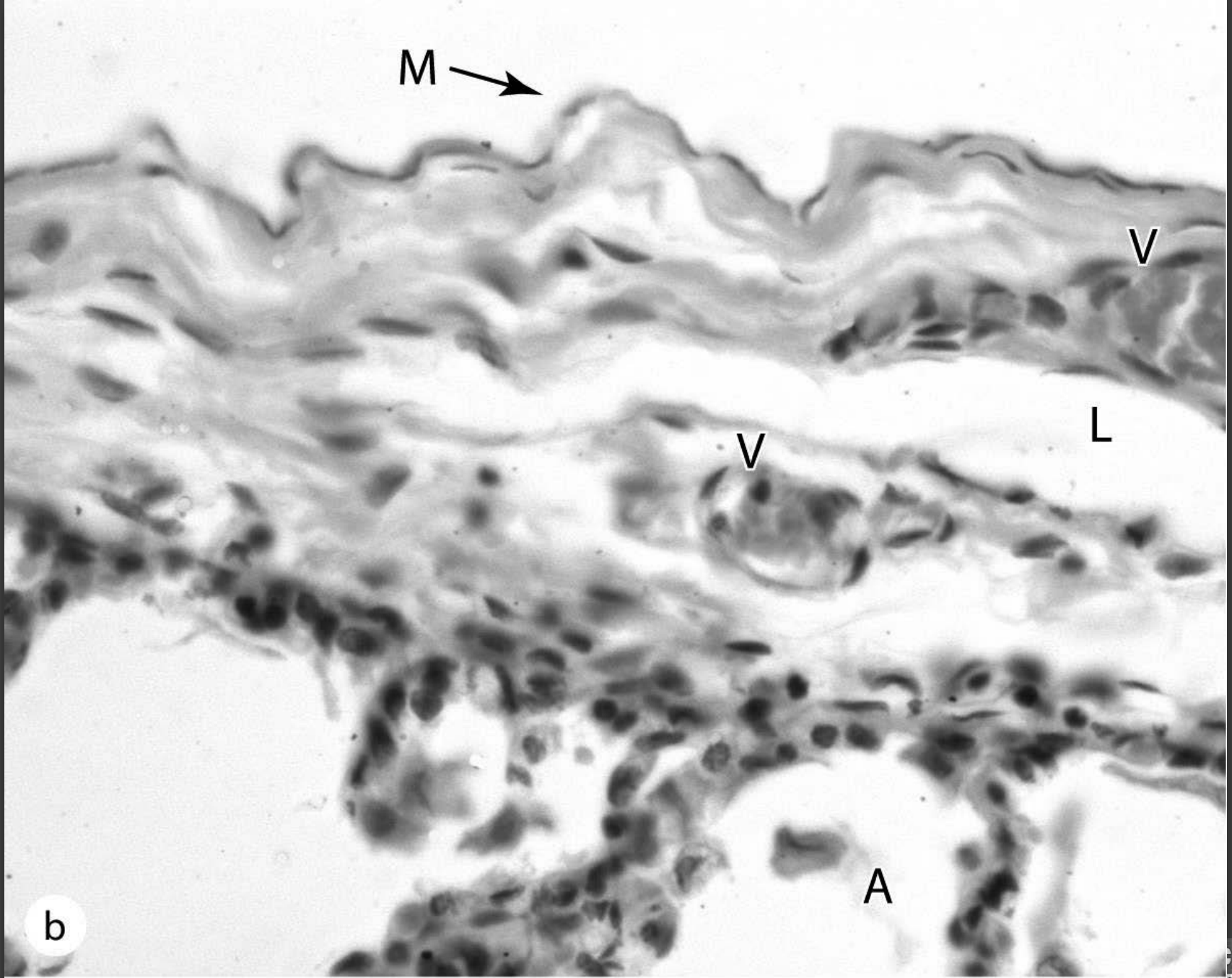


FIGURE 17-17



a

FIGURE 17-18



b

FIGURE 17-18

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Berman I. *Color Atlas of Basic Histology*. 3rd ed. New York, NY: McGraw-Hill; 2003.

Eckel CM. *Human Anatomy Lab Manual*. New York, NY: McGraw-Hill; 2008.

Fitzpatrick TB, et al. *Dermatology in General Medicine*. New York, NY: McGraw-Hill; 1971.

Hartwell L, Hood L, Goldberg M., et al. *Genetics: From Genes to Genomes*. 4th ed. New York, NY: McGraw-Hill; 2010.

Kaushansky K, Lichtman M, Beutler E, et al. *Williams Hematology*. 8th ed. New York, NY: McGraw-Hill; 2010.

Lewis R, Gaffin D, Hoefnagels M, et al. *Life*. 5th ed. New York,

NY: McGraw-Hill; 2004.

Lichtman MA, Shafer MS, Felgar RE, Wang N: *Lichtman's Atlas of Hematology*. New York, NY: 2007. <http://www.accessmedicine.com>.

McKinley M, O'Loughlin VD. *Human Anatomy*. 2nd ed. New York, NY: McGraw-Hill; 2008.

McKinley M, O'Loughlin VD. *Human Anatomy*. 3rd ed. New York, NY: McGraw-Hill; 2012.

McKinley MP, O'Loughlin VD, Bidle TS. *Anatomy & Physiology: An Integrative Approach*. New York, NY: McGraw-Hill; 2013.

Murray RK, Bender DA, Botham KM, et al. *Harper's Illustrated Biochemistry*. 28th ed. New York, NY: McGraw-Hill; 2009.

Raven P, Johnson GB, Losos JB, et al. *Biology*. 7th ed. New York, NY: McGraw-Hill; 2005.

Weiss L, Greep RO. *Histology*. 4th ed. New York, NY: McGraw-Hill; 1977.

Widmaier EP, Raff H, Strang KT. *Vander's Human Physiology*. 11th ed. New York, NY: McGraw-Hill; 2008.

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