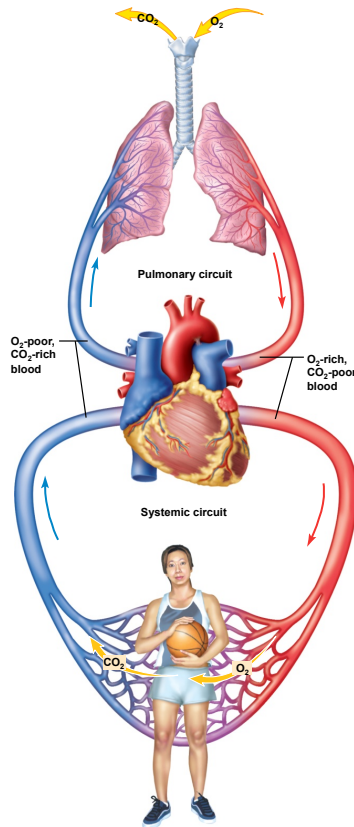


Fig. 19.1

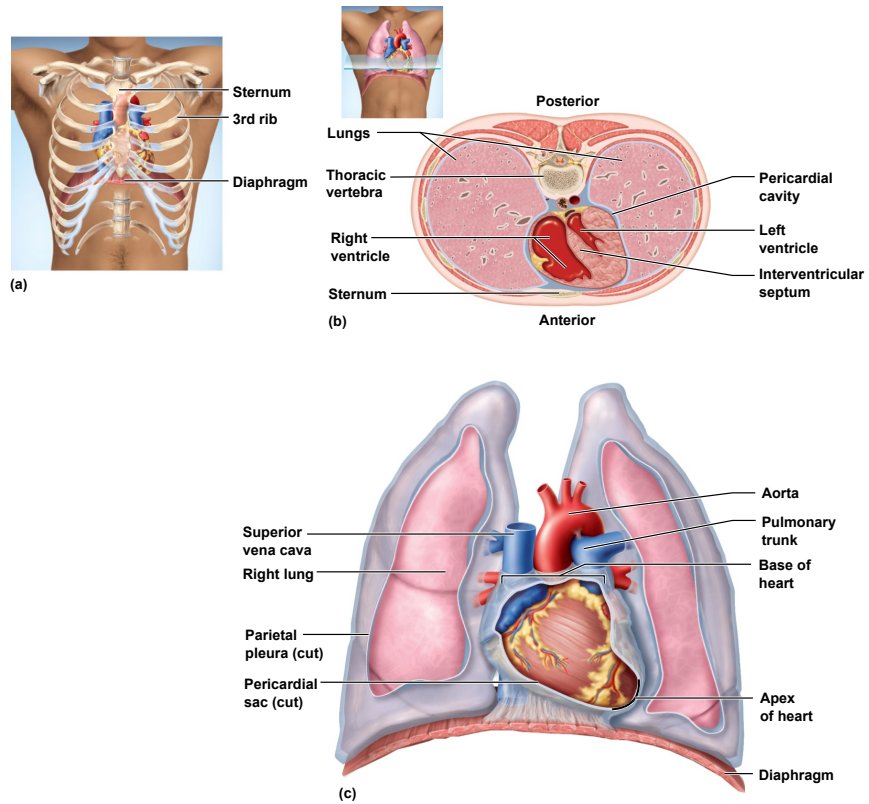
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1

Fig. 19.2

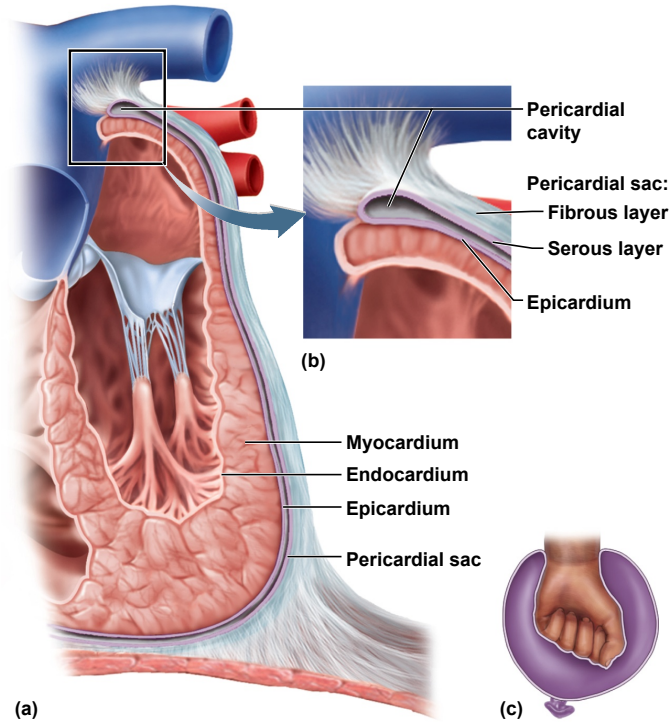
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2

Fig. 19.3

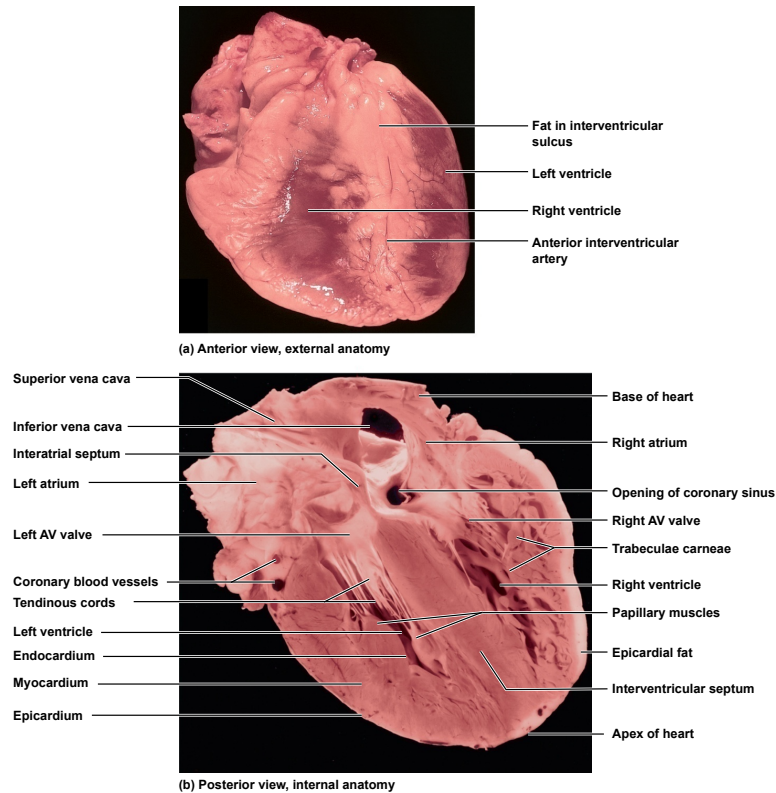
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3

Fig. 19.4

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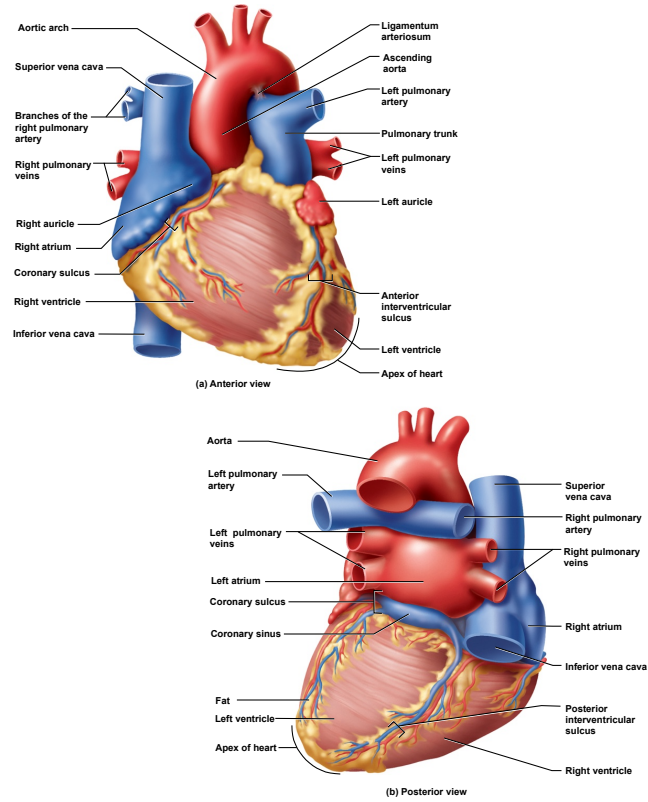


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4

Fig. 19.5

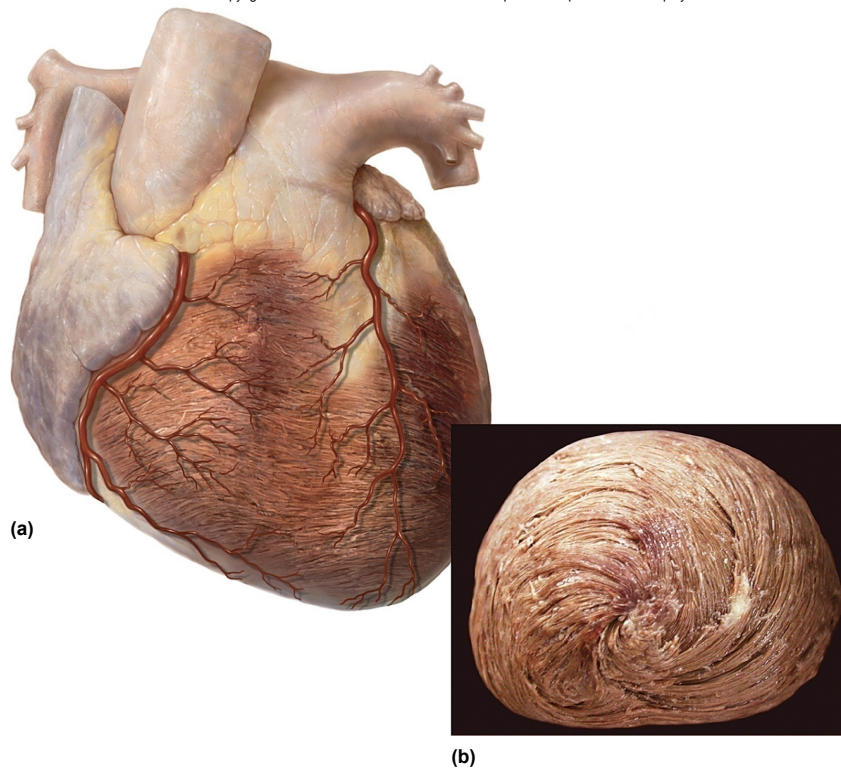
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5

Fig. 19.6

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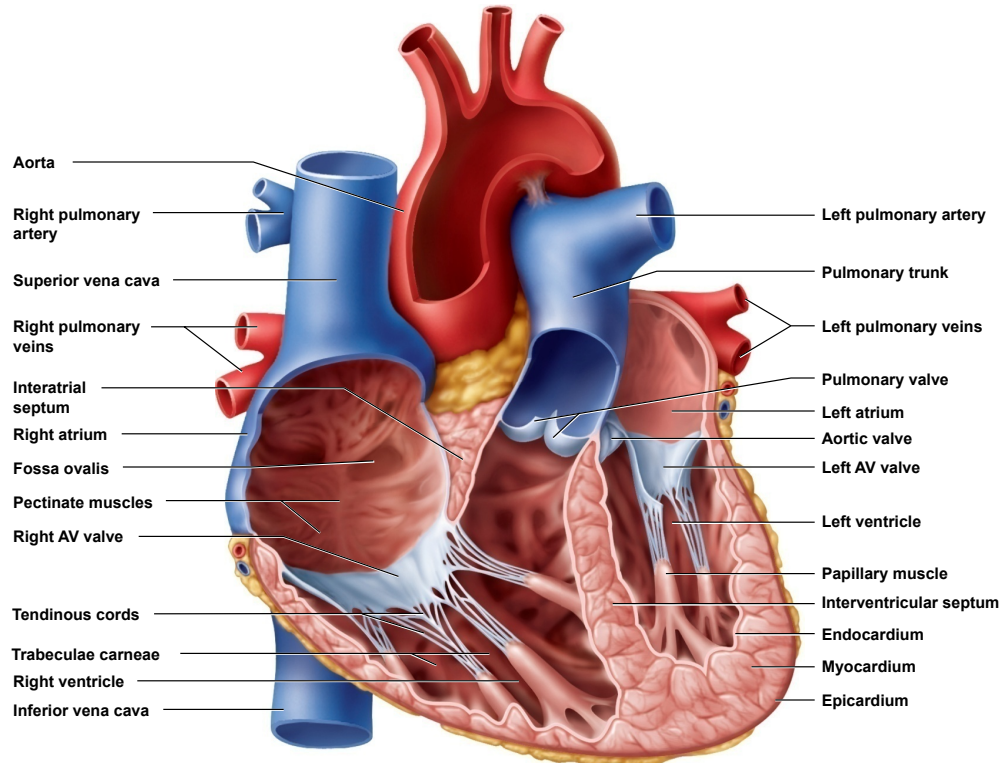


b: Photo and illustration by Roy Schneider, University of Toledo. Plastinated heart model for illustration courtesy of Dr. Carlos Baptista, University of Toledo

6

Fig. 19.7

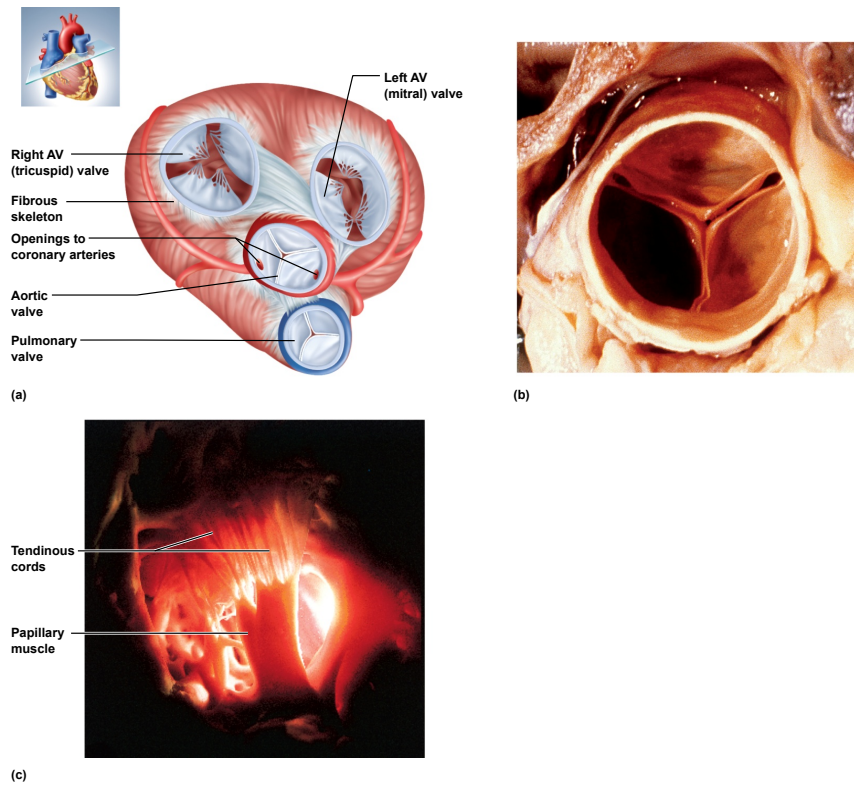
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7

Fig. 19.8

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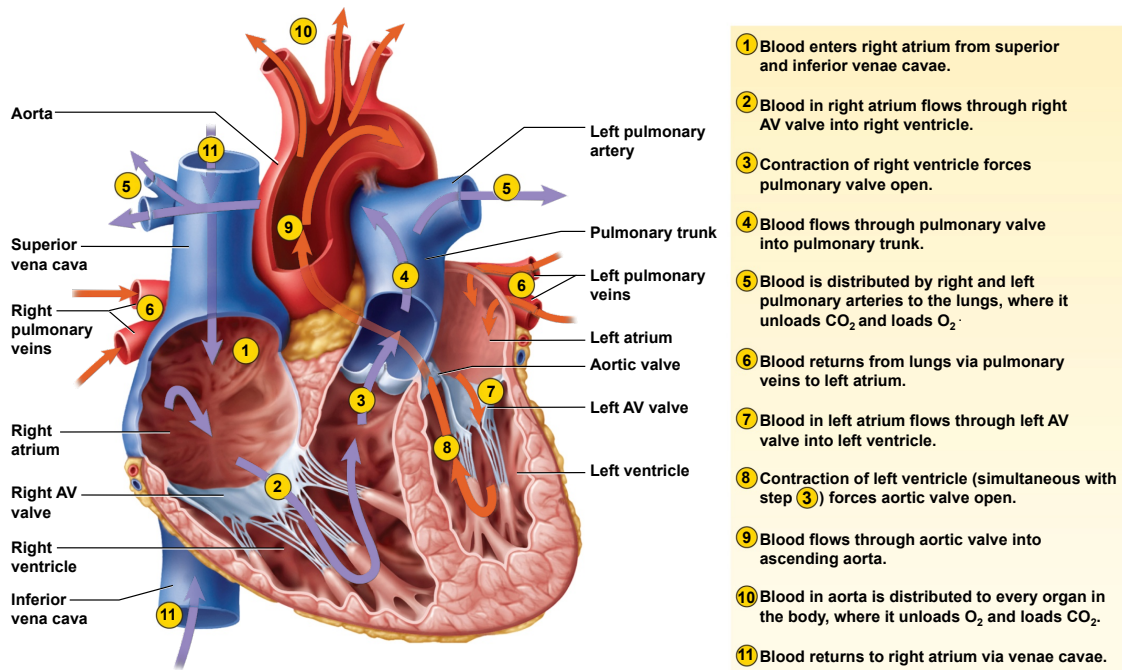


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8

Fig. 19.9

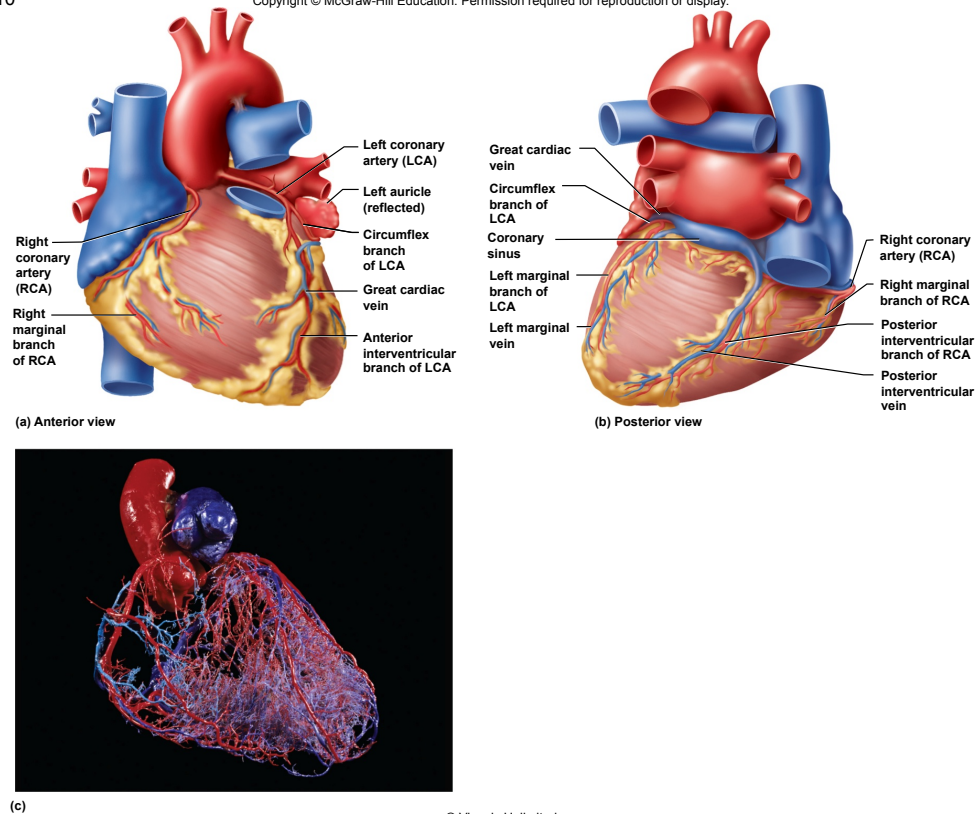
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9

Fig. 19.10

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Fig. 19.11

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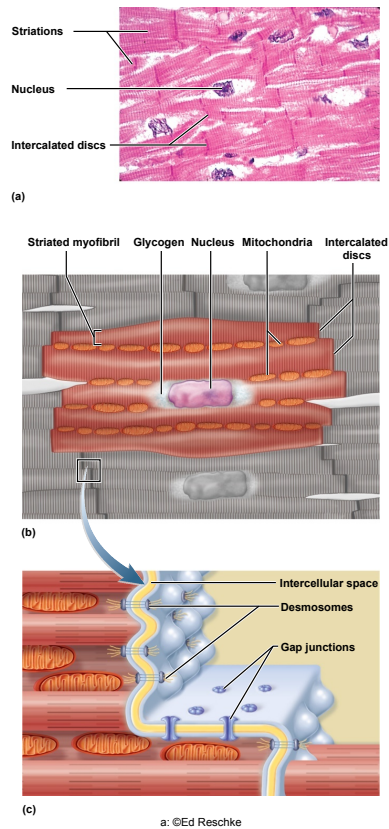


Fig. 19.12

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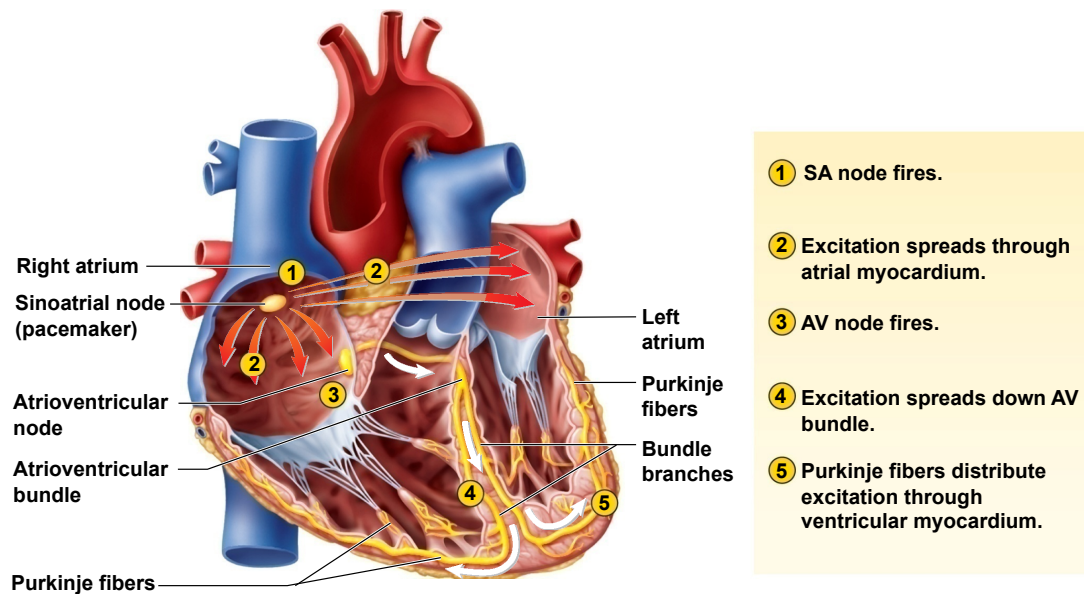
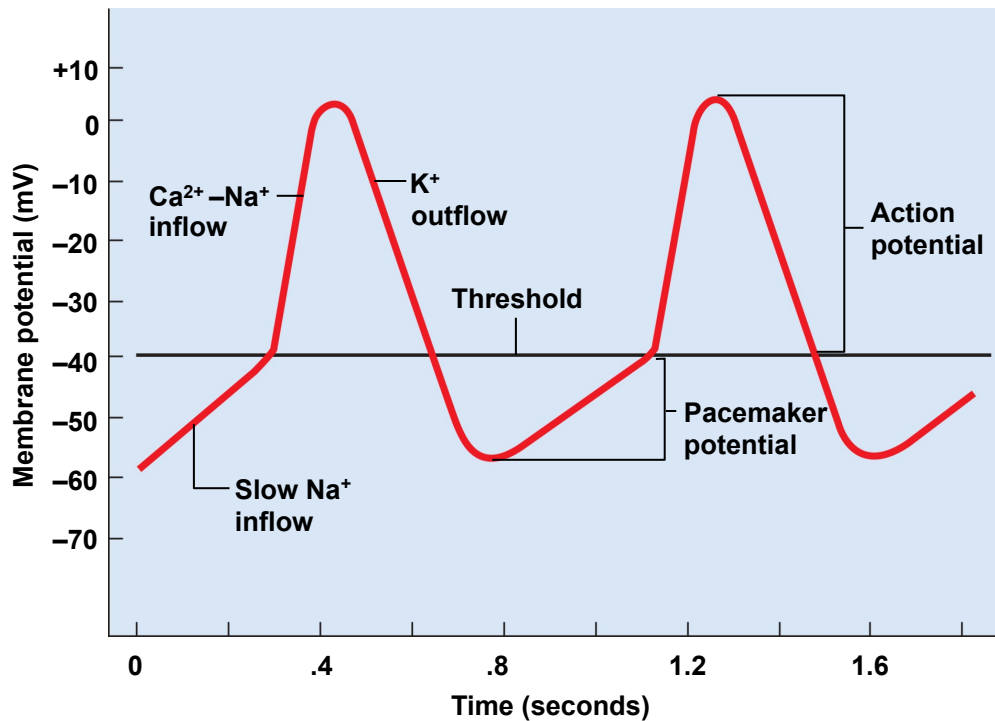


Fig. 19.13

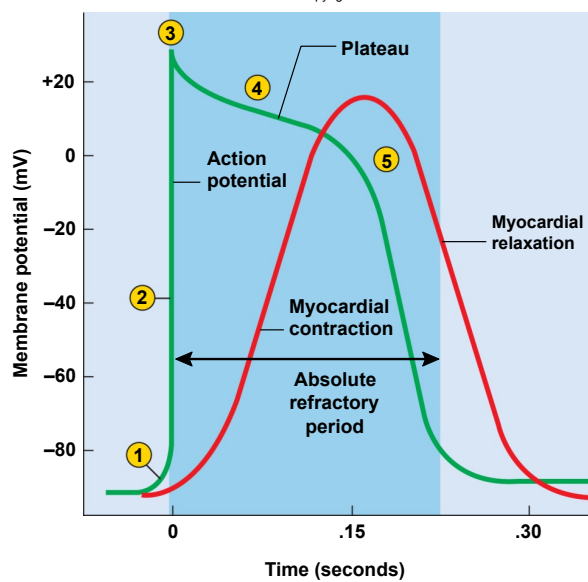
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Fig. 19.14

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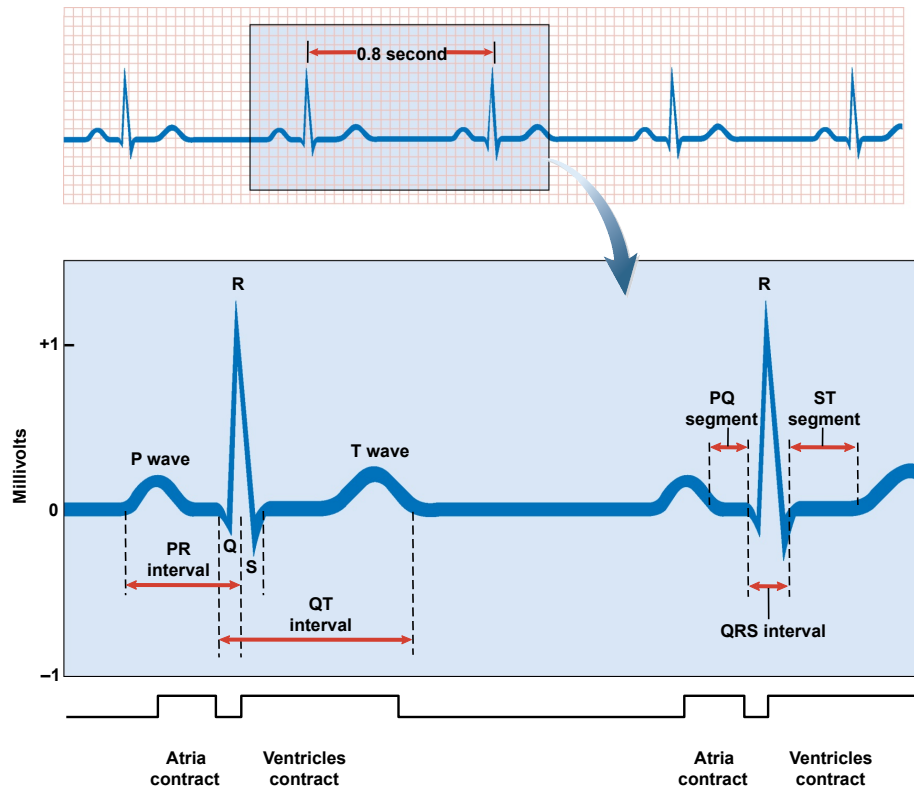


- 1 Voltage-gated Na^+ channels open.
- 2 Na^+ inflow depolarizes the membrane and triggers the opening of still more Na^+ channels, creating a positive feedback cycle and a rapidly rising membrane voltage.
- 3 Na^+ channels close when the cell depolarizes, and the voltage peaks at nearly +30 mV.
- 4 Ca^{2+} entering through slow Ca^{2+} channels prolongs depolarization of membrane, creating a plateau. Plateau falls slightly because of some K^+ leakage, but most K^+ channels remain closed until end of plateau.
- 5 Ca^{2+} channels close and Ca^{2+} is transported out of cell. K^+ channels open, and rapid K^+ outflow returns membrane to its resting potential.

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Fig. 19.15

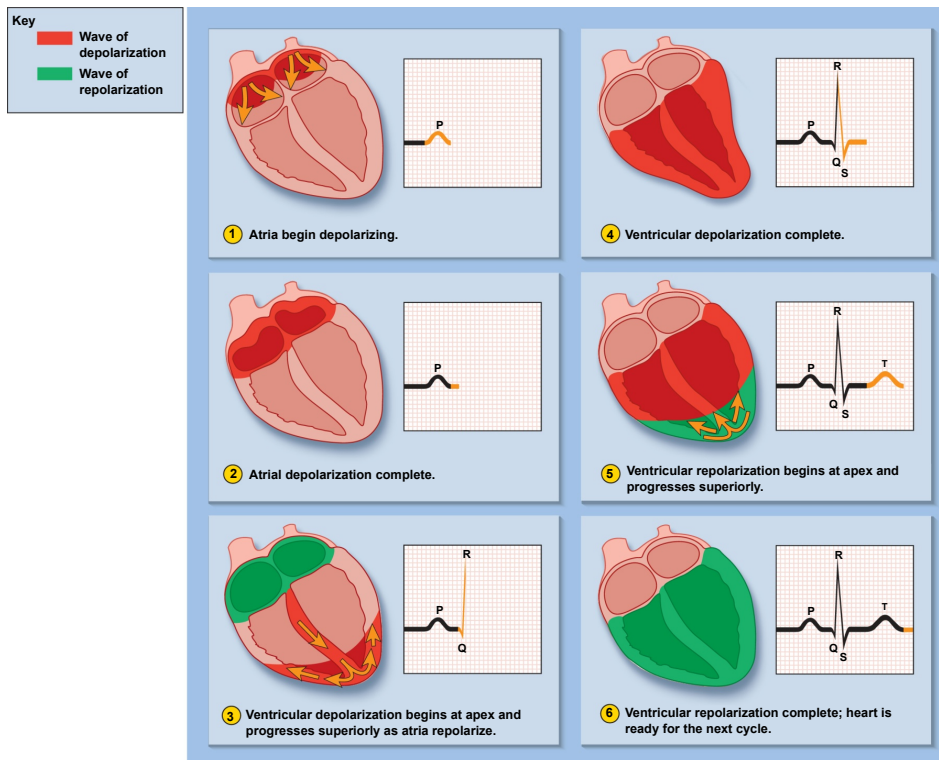
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Fig. 19.16

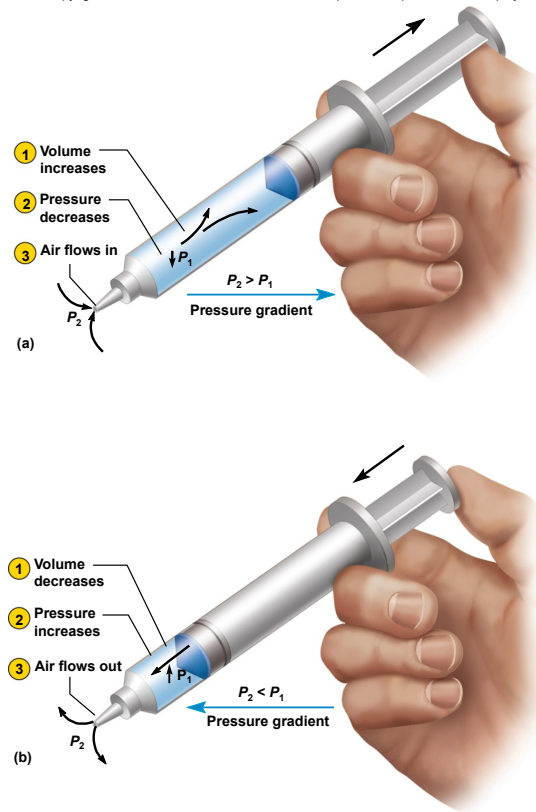
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Fig. 19.18

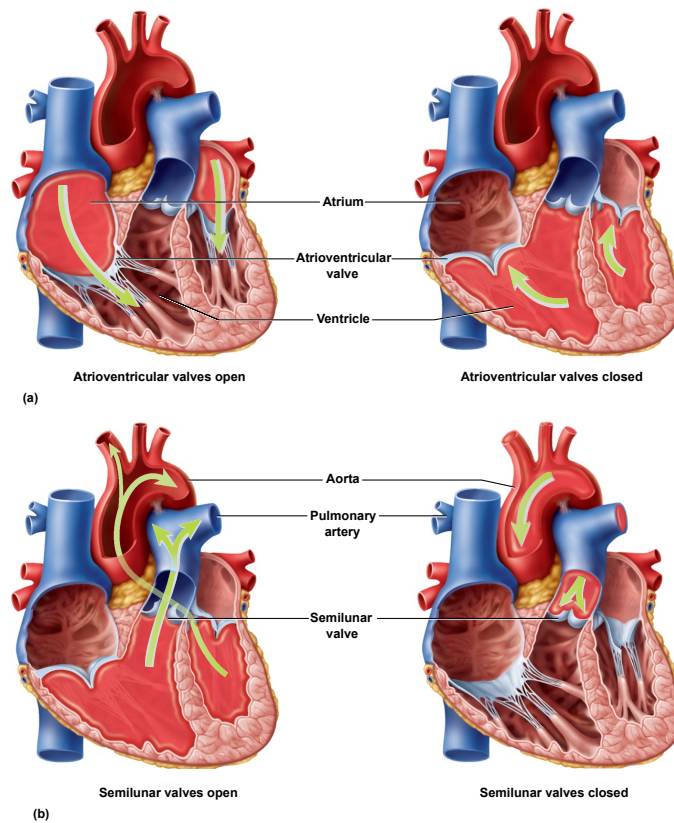
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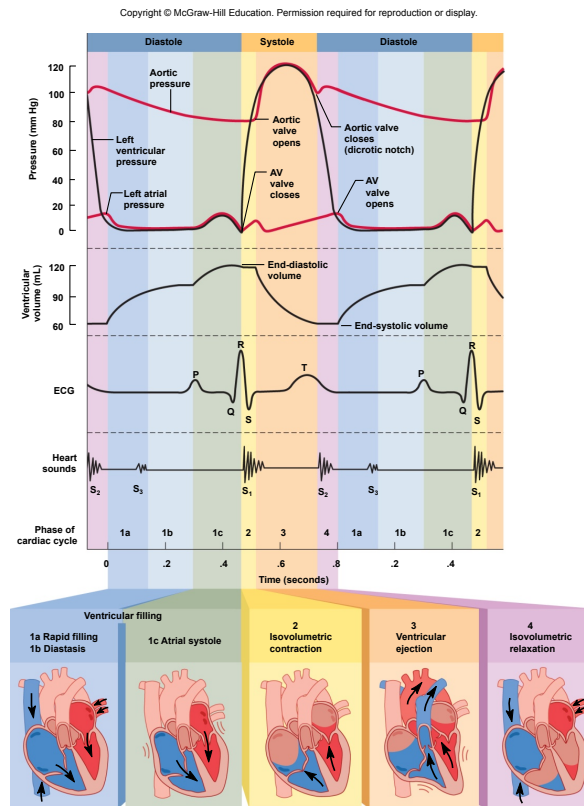
Fig. 19.19

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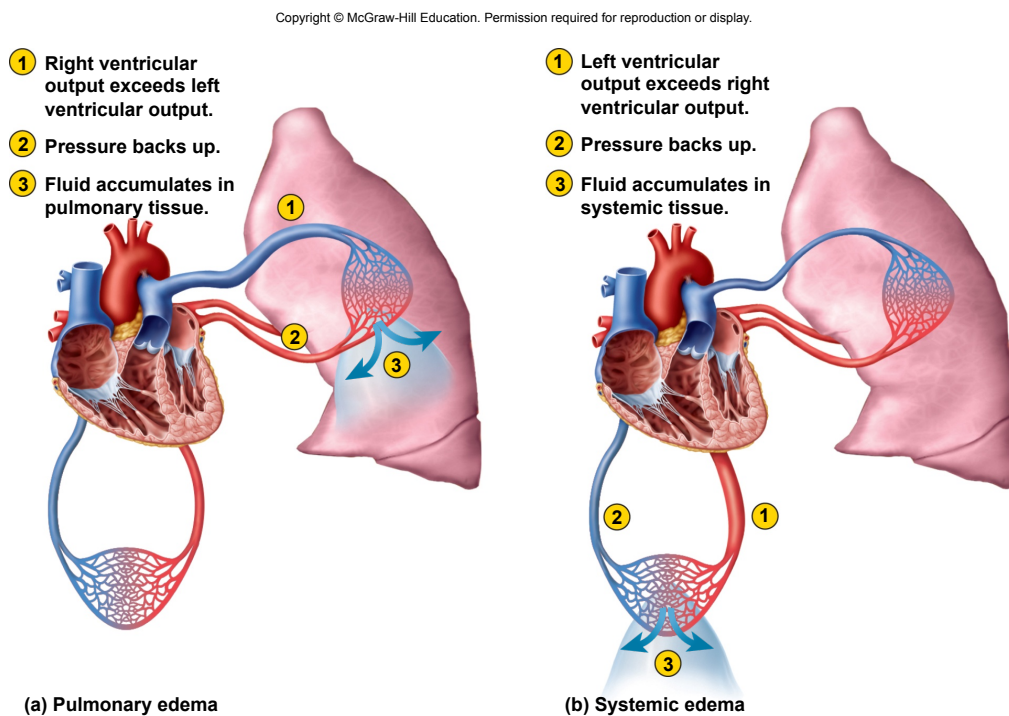
18

Fig. 19.20



19

Fig. 19.21



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