

The human heart...

- beats almost 100,000 times per day.
- pumps about 2,000 gallons of blood per day.
- weighs between 7 and 15 ounces.
- has a beating sound due to the opening and closing of the valves.

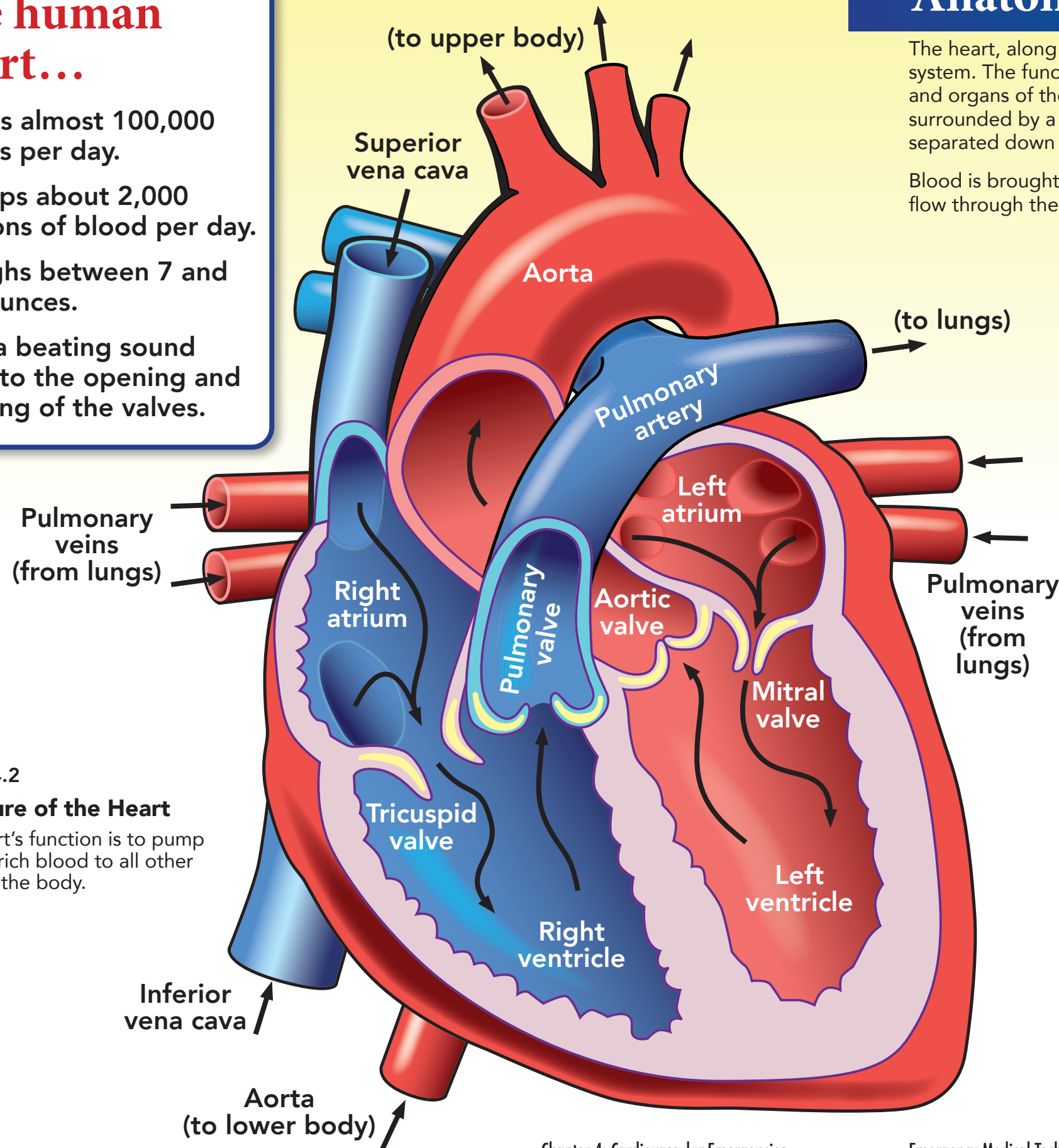


Figure 4.2
Structure of the Heart

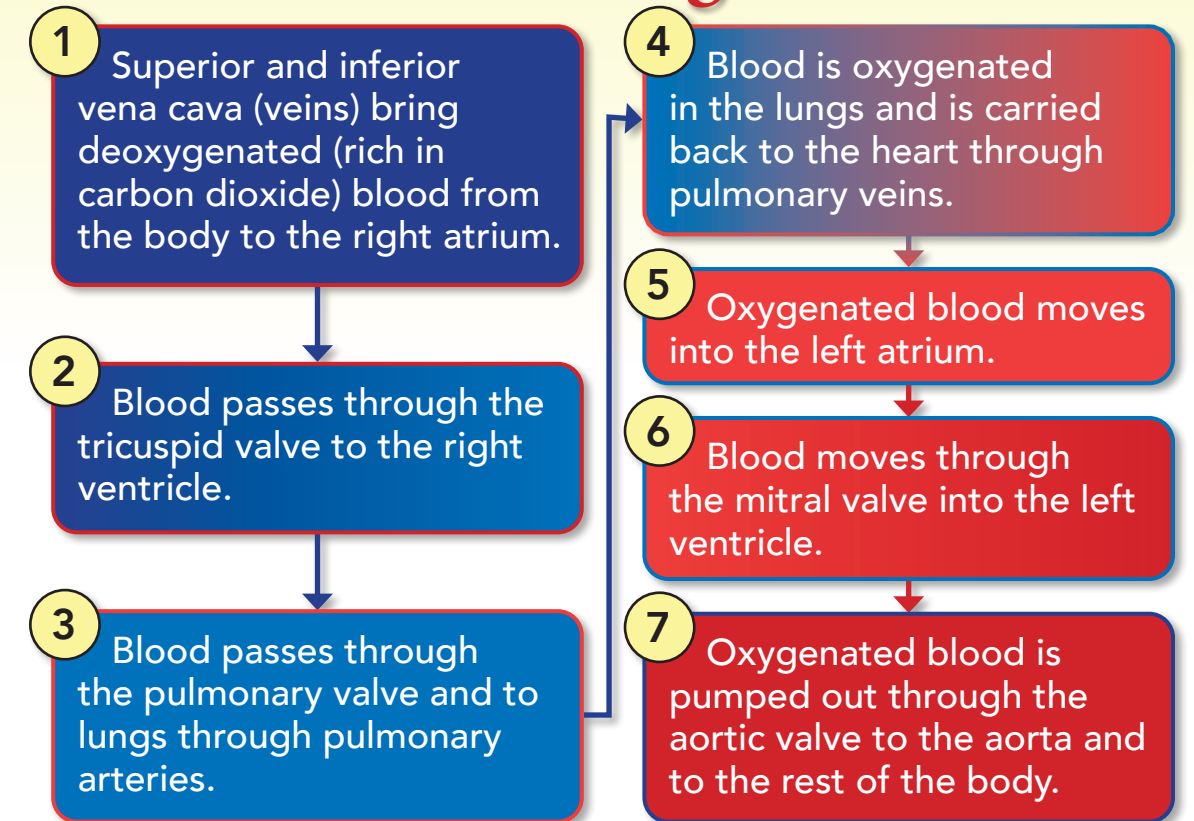
The heart's function is to pump oxygen-rich blood to all other areas of the body.

Anatomy and Physiology

The heart, along with a complex network of blood-carrying vessels, comprise the cardiovascular system. The function of the heart is to deliver blood rich in oxygen and nutrients to all the cells and organs of the body and to remove carbon dioxide. The heart is an organ comprised of muscle surrounded by a sac-like membrane called the **pericardium**. It is divided into four chambers, separated down the middle by the **septum**.

Blood is brought into and carried away from the heart by a series of veins and arteries, and blood flow through the heart is regulated by four valves.

Blood Flow through the Heart



* On Call

Your patient is a 55-year-old woman. She is presenting as cool and clammy. She is complaining of shortness of breath and pain in her back and stomach. Her vitals are the following: pulse, 96; blood pressure, 90/55.

- 1) What other vitals should you obtain?
- 2) Based on symptoms and vitals, what is the best plan of treatment for your patient?