



Cardiac Pop Pump

Introduction

Our heart beats about 70 times per minute, over 100,000 times per day and almost 40 million times every year. The heart is an incredible and complex organ. It is constantly pumping blood in order to keep us alive.

In this activity, students gain a hands-on understanding of the movement of blood around the body by squeezing pop bottles that represent the chambers of the heart. *Cardiac Pop Pump* demonstrates some of the basic components of the circulatory system. Balloons are analogous to atrioventricular valves and demonstrate the prevention of back flow of blood. Varying types of tubing are used to represent the aorta, vena cava, pulmonary artery and pulmonary vein.

In addition to the *Cardiac Pop Pump* activity, groups of two students can make a lung model from a plastic bottle, a balloon and a latex glove. The lung activity simplifies the concepts involved in the processes of inspiration and expiration. The bottle represents the thoracic cavity, the balloon represents the lungs and the glove represents the diaphragm.