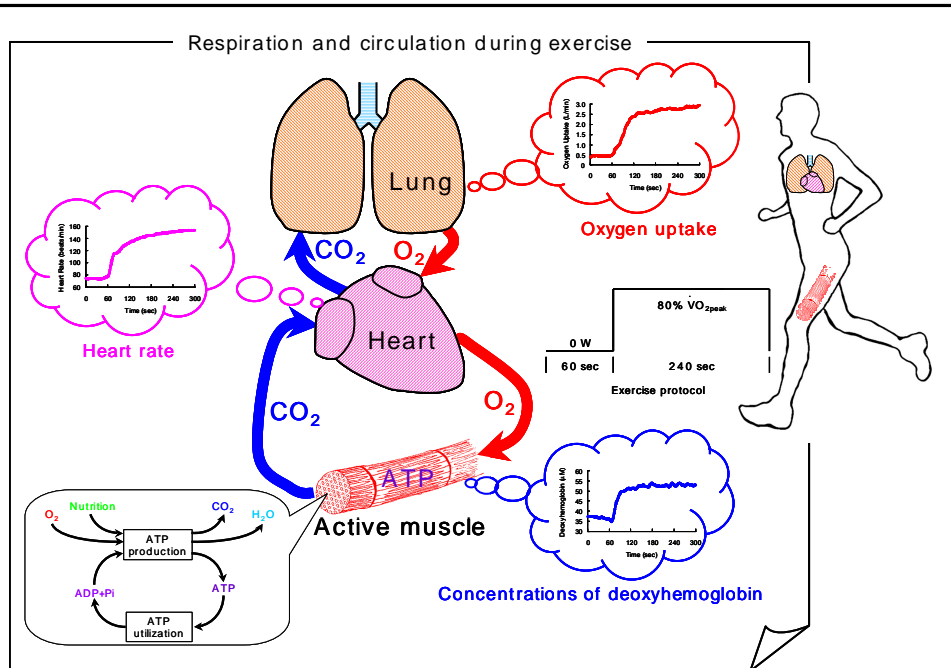


# Regulation of Respiration and Circulation

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## Content:

For prolonged exercise, it is necessary for the body to continuously produce adenosine triphosphate, which is required for muscle contraction. The respiratory and circulatory organ systems perform vital functions in the living body. Via the respiratory system, red blood cells absorb atmospheric oxygen through the alveoli in the lungs, and thus, exchange of gases occurs. The circulatory (or cardiovascular) system, which includes the heart and blood vessels, facilitates blood transport to the peripheral cells. These systems are regulated by the nervous system and physiologically activate substances. From the viewpoint of physiome, I have investigated the regulation of respiration and circulation during exercise, especially during the step-on and step-off movements of exercise.



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