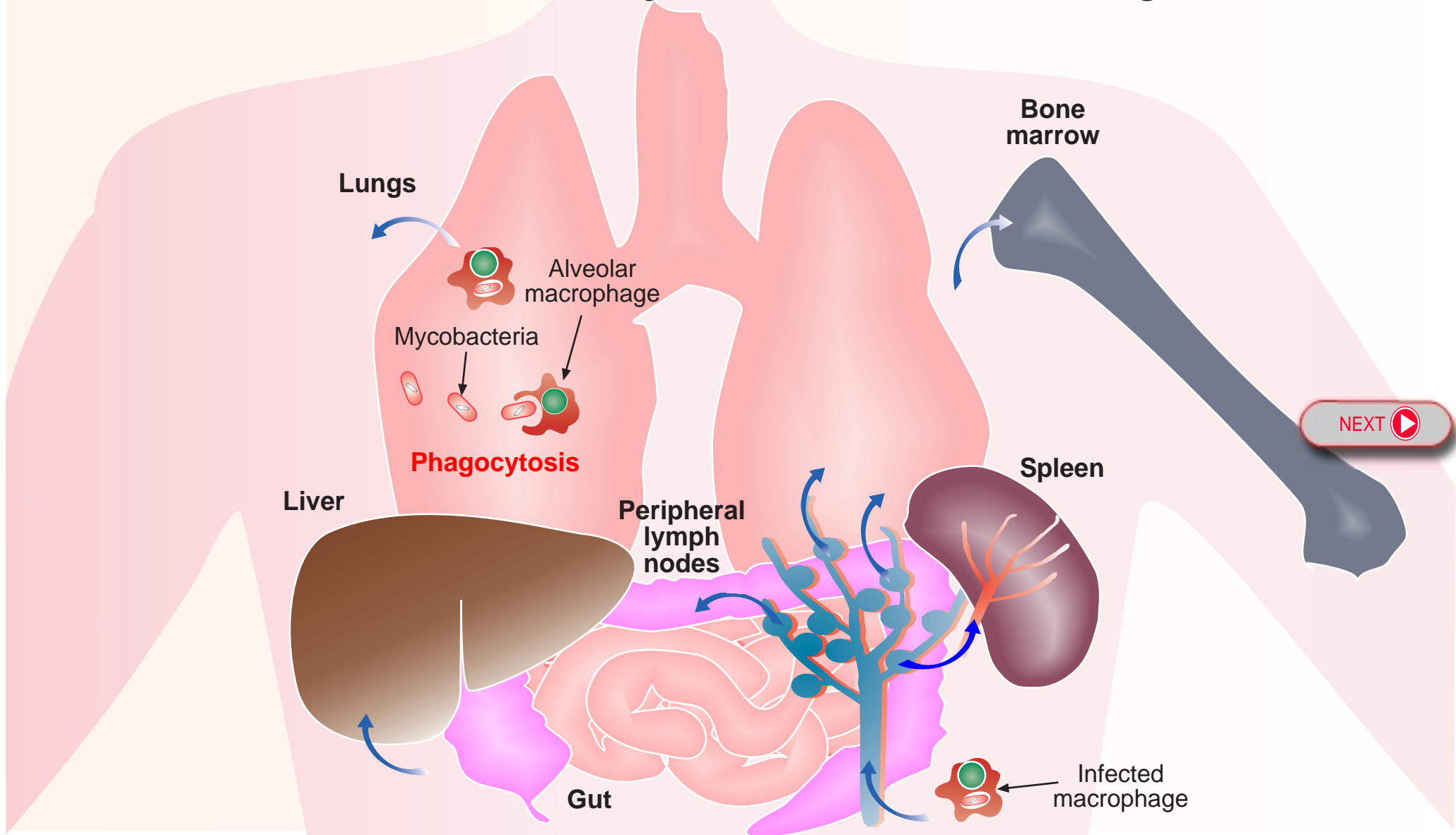
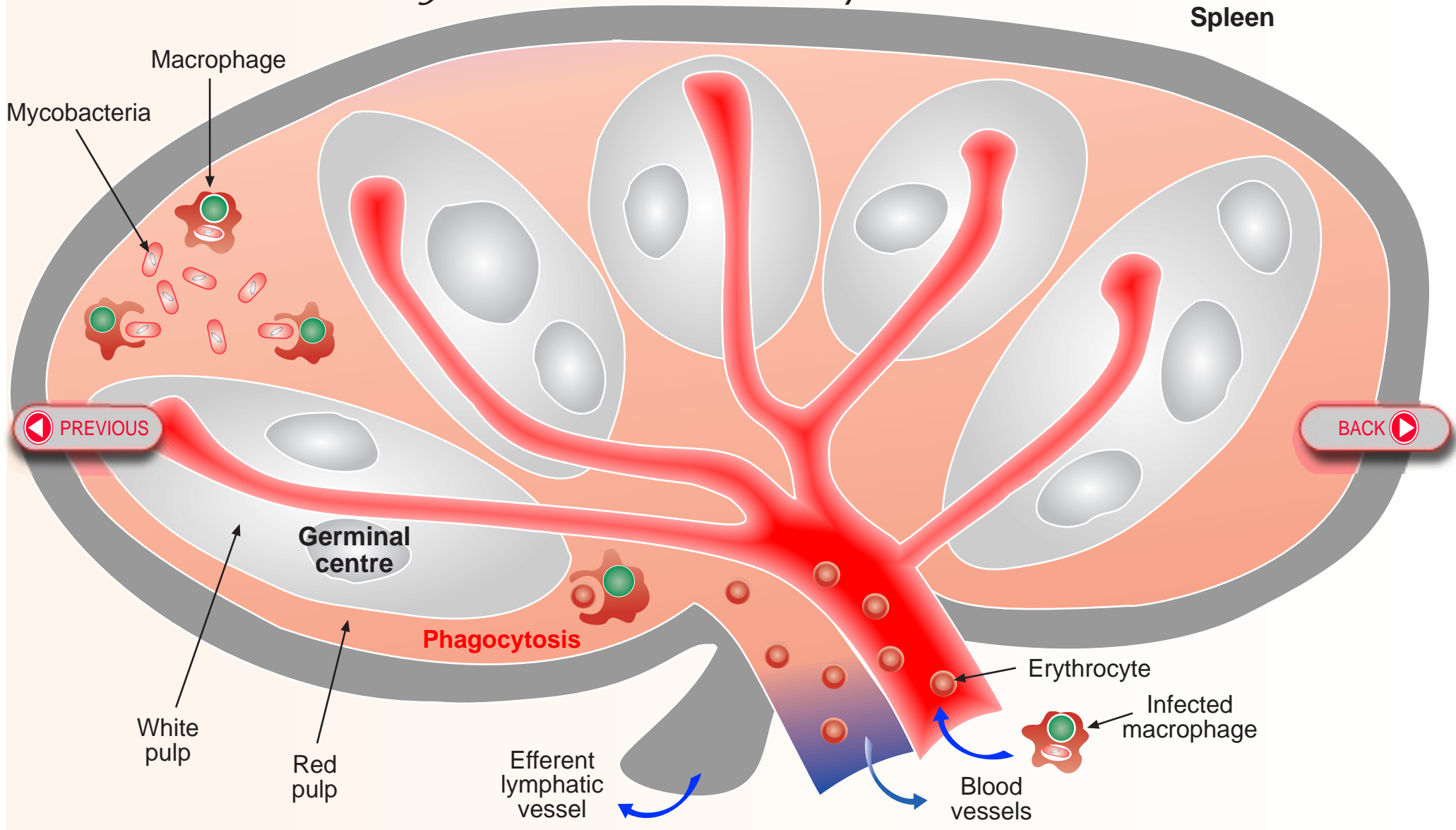


Dissemination of mycobacteria to other organs.



Dissemination of mycobacteria from the lung to other organs can occur when macrophages become infected with bacteria following phagocytosis. Migration of activated macrophages to secondary lymphoid tissue for antigen presentation to CD4+ helper T lymphocytes can spread the bacteria to other tissues such as liver, lymph nodes, spleen, gut and bone marrow.

Dissemination of Mycobacteria to the spleen.



The spleen detects bloodborne antigens and also removes aged erythrocytes. Arterial blood flows into the spleen and contacts lymphoid tissue known as the white pulp which is rich in lymphocytes and antigen-presenting cells. Foreign antigen is detected here and inflammatory responses are initiated. The blood continues to flow into specialised sinuses called the red pulp where macrophages remove aged erythrocytes by phagocytosis. Macrophages infected with mycobacteria may enter the spleen and spread bacteria to other macrophages. In HIV infection the immune response to mycobacteria is weakened and bacteria can replicate more readily.

