

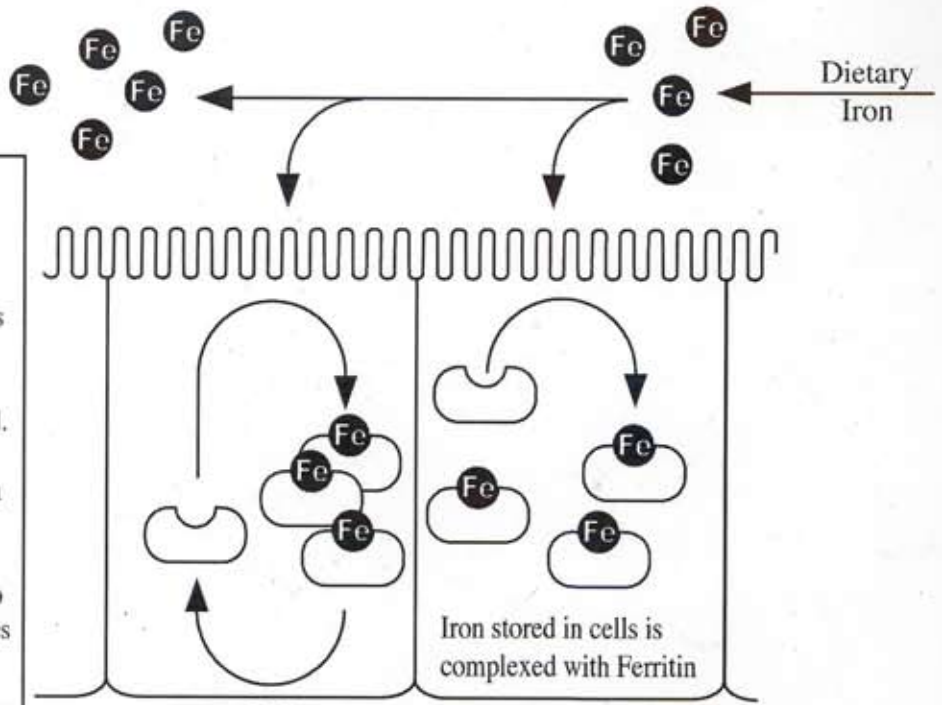
IRON TRANSPORT

Excreted ←

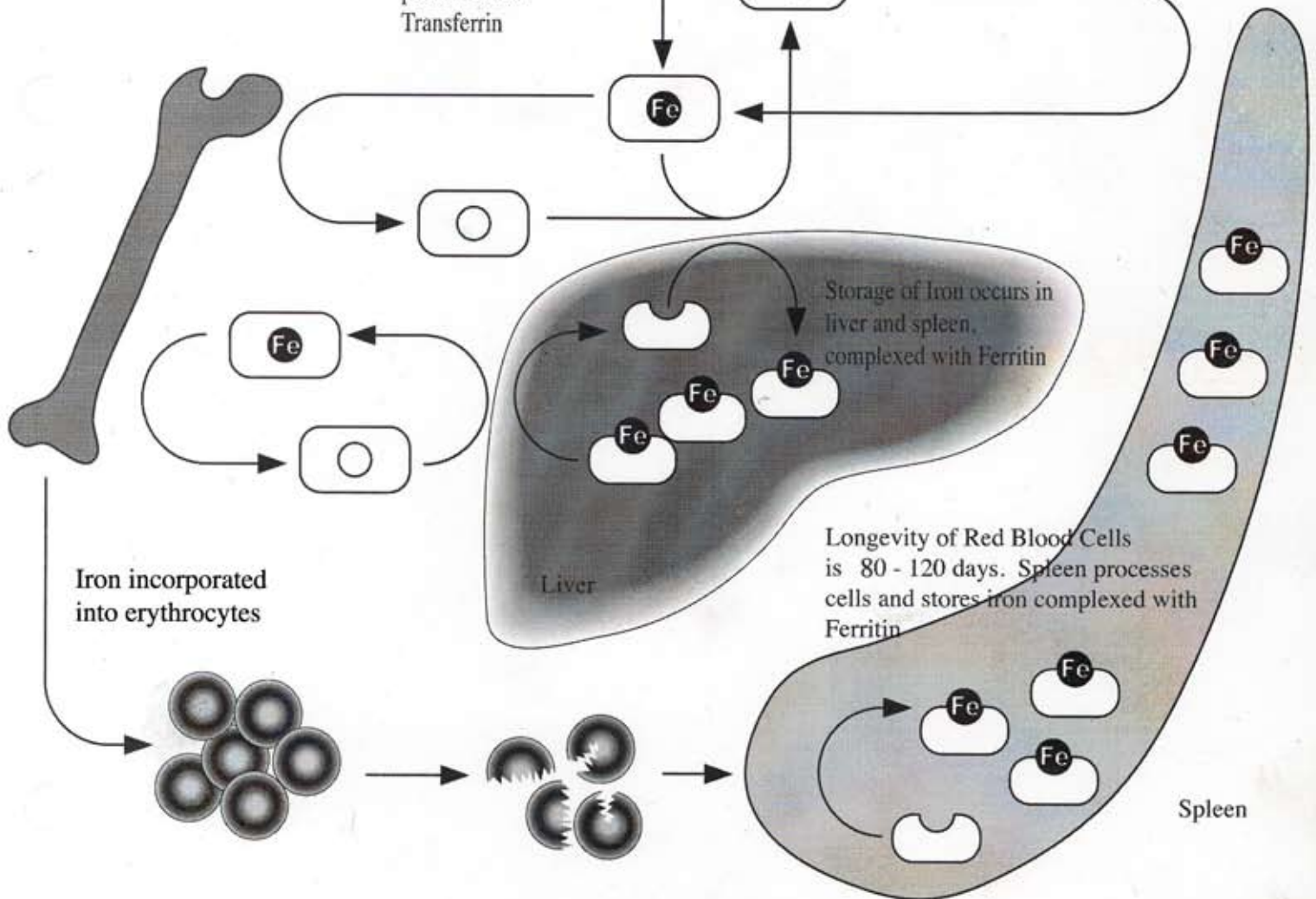
Dietary Iron →

Iron does not normally exist in the body unaccompanied by some protein due to its otherwise toxic properties. Within cells Ferritin (and hemosiderin) are the intracellular storage proteins. As Ferritin is limited within intestinal cells, the intestine is limited in the amount of iron that can be absorbed. Once ferritin within intestinal cells is saturated, additional iron within intestinal lumen will be excreted.

Transport of iron within the blood is accompanied by a different protein called Transferrin. Transferrin will carry the iron to storage organs such as the liver or spleen or to the red bone marrow for incorporation into hemoglobin. Once the transferrin-iron complex reaches its destination, the iron must then be complexed with ferritin at the new cell site.



Transferral of Iron within the blood occurs with a protein called Transferrin



Storage of Iron occurs in liver and spleen, complexed with Ferritin

Longevity of Red Blood Cells is 80 - 120 days. Spleen processes cells and stores iron complexed with Ferritin

Iron incorporated into erythrocytes

Spleen

Liver