

FACTORS AFFECTING ERYTHROPOIESIS:

1. General factor
2. Maturation factor
3. Factors necessary for the formation of haemoglobin

GENERAL FACTORS:

- Erythropoietin - (i) it is a glycoprotein hormone secreted by kidney and liver in response to hypoxia.

(ii) it promotes the development of proerythroblast, early erythroblast, intermediate and late erythroblast and reticulocyte
- Thyroxine – it is general metabolic hormone secreted by thyroid gland accelerates the process of erythropoiesis
- Haemopoietic growth factor- interleukin (IL5,IL6)
- Vitamins- B,C,D,E helps in development of RBC

MATURATION FACTOR:

- Vitamin B12- essential for synthesis of DNA in RBC
- Intrinsic factor of castle- it is produced from gastric mucosa by parietal cells of gastric glands which is essential for vitamin B12 absorption from intestine
- Folic acid- it is essential for DNA synthesis

FACTORS NECESSARY FOR THE FORMATION OF HAEMOGLOBIN:

- Proteins and aminoacid- globin part of haemoglobin development
- Iron – development of haem part
- Copper- absorption of iron from GIT
- Cobalt,nickel- utilization of iron