



***Pharmaceutical Technology
for 3rd year students
2nd Course, Lec# 7***

By:

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SOME FACTORS OF DRUG ABSORPTION FROM RECTAL SUPPOSITORIES

- 1/the constitution of the patient,
- 2/the physicochemical nature of the drug
- 3/drug ability to traverse the physiologic barriers
- 4/ the nature of the suppository vehicle and
- 5/ its capacity to release the drug.

The factors that affect rectal absorption of a drug may be divided into two main groups:

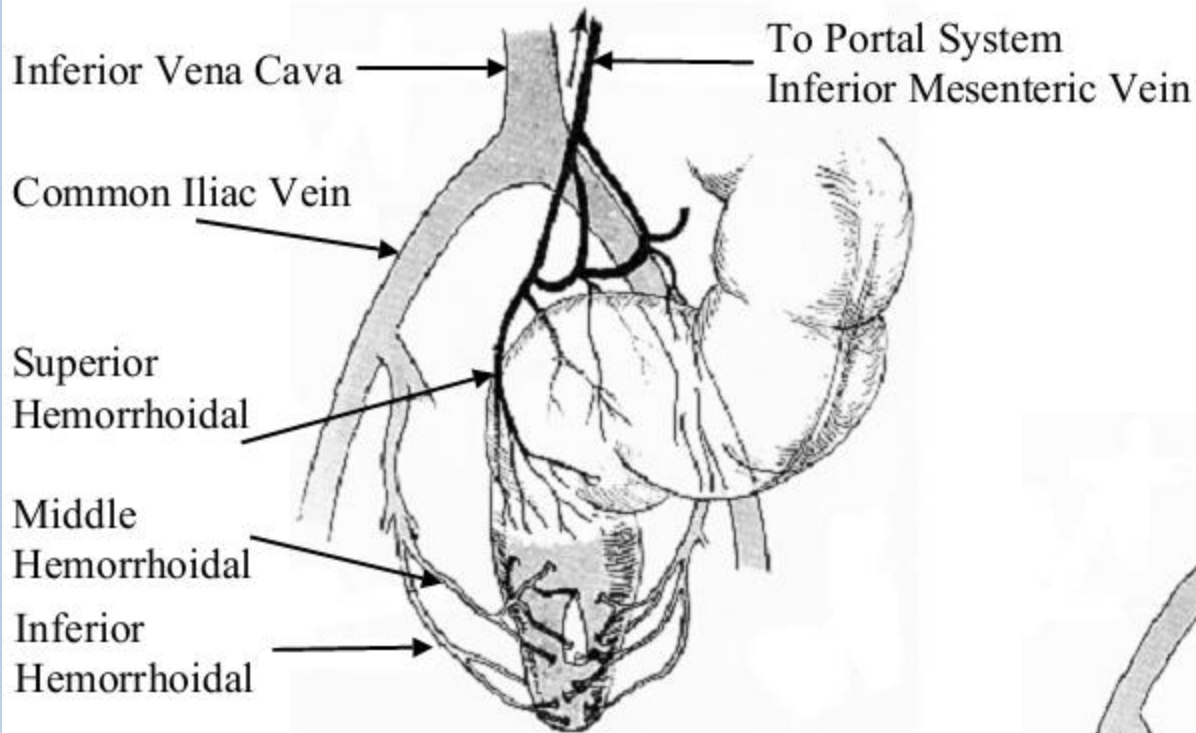
(a) physiologic factors and

(b) physicochemical factors of the drug and the base.

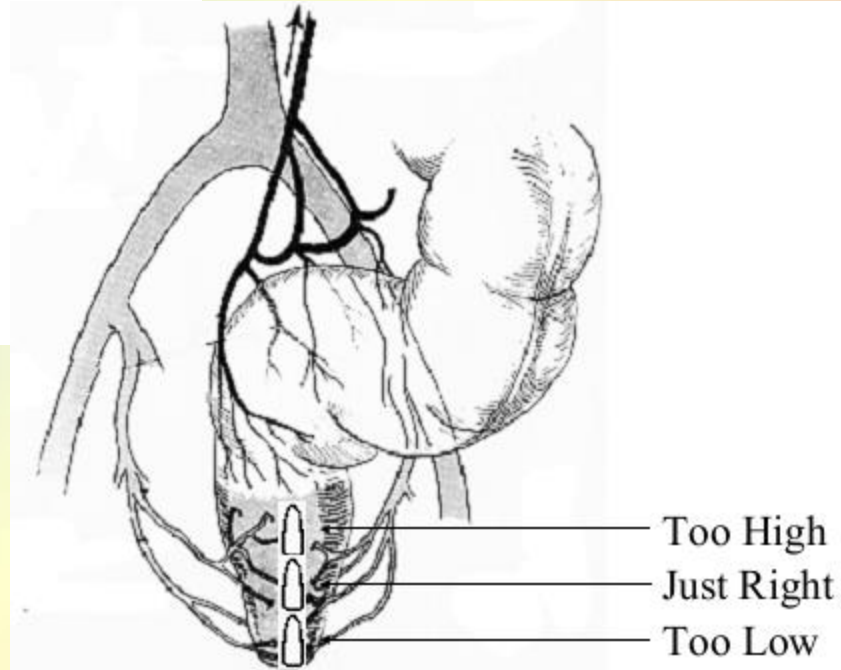
PHYSIOLOGIC FACTORS

In the resting state, the rectum is not motile; there are no villi or microvilli on the rectal mucosa. However, there is abundant vascularization of the submucosal region of the rectum wall with blood and lymphatic vessels. Among the physiologic factors that affect drug absorption from the rectum are;

Rectal Blood Circulation



Rectum



Vagina ,Fibromuscular tube

Therefore, when deemed desirable, an evacuant enema may be administered and allowed to act before the administration of a suppository of a drug to be absorbed.

✓ Other conditions, such as diarrhea, colonic obstruction due to tumorous growths, and tissue dehydration can all influence the rate and degree of drug absorption from the rectum