

**PharmD IIIrd Yr**

PHARMACOLOGY

**Thrombolytic Drugs**

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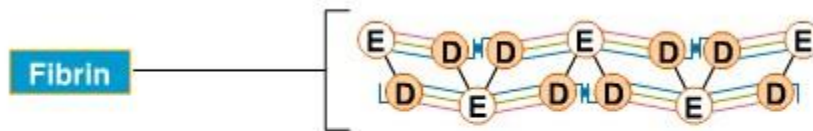
# Thrombolytic drugs – mechanism of action

Thrombolytic/fibrinolytic drugs



Chapter I-Thromobolytic Drugs

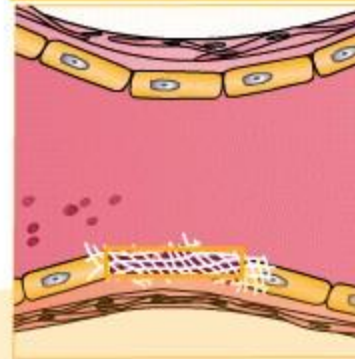
Thrombolytic drugs



# Thrombolytic drugs – mechanism of action

Thrombolytic/fibrinolytic drugs

Haemostasis



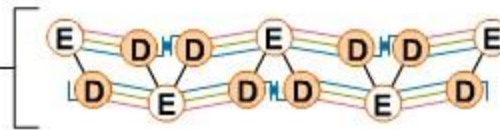
Thrombolytic drugs

Convert

Plasminogen

Plasmin

Fibrin



# Thrombolytic drugs – mechanism of action

Thrombolytic/fibrinolytic drugs



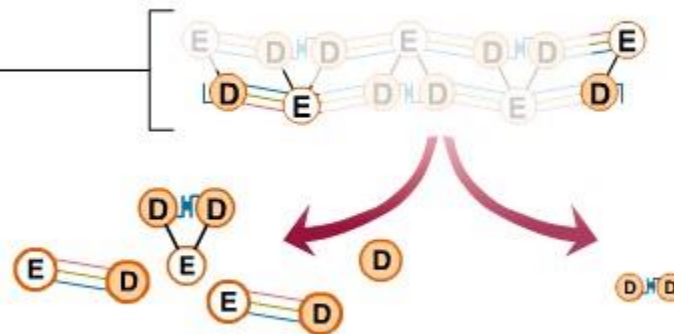
Thrombolytic drugs

Convert

Plasminogen

Plasmin

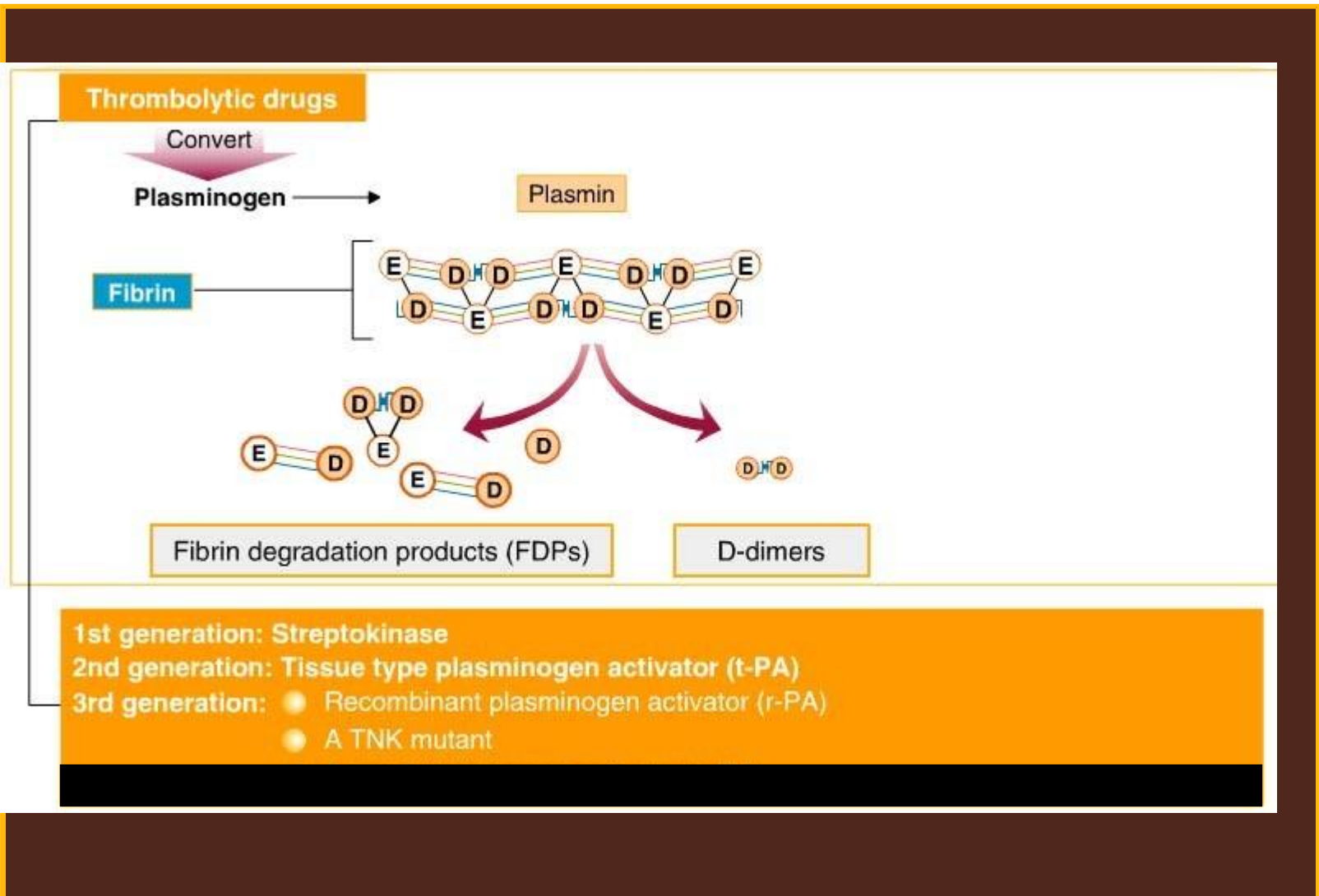
Fibrin



Fibrin degradation products (FDPs)

D-dimers

# Thrombolytic drugs – mechanism of action



# Thrombolytic drugs – Pharmacokinetics

- The plasma half-life of the third generation drugs is 14-45 minutes, allowing administration as a single or double intravenous bolus. This is in contrast to second generation t-PA, which with a half-life of 3-4 minutes, must be administered an initial bolus followed by infusion

# Thrombolytic drugs – major use

- Thrombolysis in patients with acute myocardial infarction (MI)
- Thrombolysis in patients with ischaemic stroke
- Thrombolysis of (sub)acute peripheral arterial thrombosis
- Thrombolysis in patients with acute massive pulmonary embolism
- Thrombolysis of occluded haemodialysis shunts





# Thrombolytic drugs – major drawbacks

- Treatment is limited to acute in-hospital treatment. There is a high risk of bleeding inherent in this treatment
- Patients using anticoagulants are contraindicated for treatment with thrombolytics