

Angina pectoris - chest pain due to imbalance between the oxygen requirement of the heart and oxygen supplied to it via the coronary vessels.

TYPES OF ANGINA PECTORIS

- 1. Classical angina (Stable angina) -**
 - due to atherosclerosis of coronary arteries
- 2. Variant/ Prinzmetal's angina -**
 - due to coronary vasospasm
- 3. Unstable angina -**
 - progressive occlusion of the coronary artery
 - rupture of an atheromatous plaque & platelet aggregation at the ruptured plaque

Antianginal drugs

Classification

1. **Nitrates** - Nitroglycerine (prototype)

Isosorbide dinitrate

Isosorbide mononitrate

Erythrityl tetranitrate

2. **β -blockers** - Propranolol

Metoprolol

Atenolol

3. Calcium channel blockers -

Verapamil

Diltiazem

Nifedipine, Nimodipine,

Amlodipine , Felodipine

4. Potassium channel opener - Nicorandil

5. Others - Aspirin

Dipyridamole

Trimetazidine

▣ **To abort or terminate anginal attack:**

Nitroglycerin(sublingually)

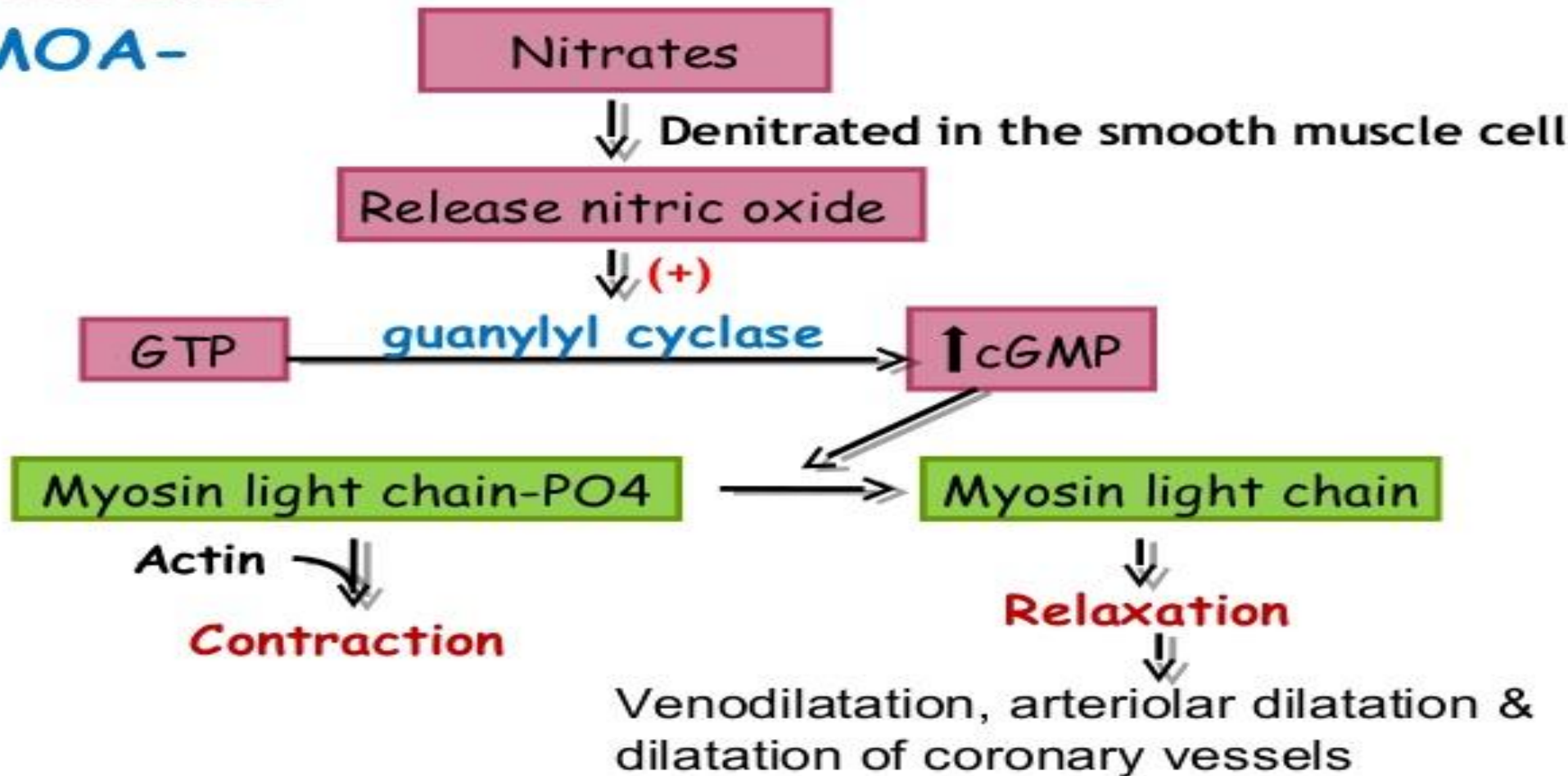
Isosorbide dinitrate(sublingually)

▣ **For chronic prophylaxis:**

Nitrates, β -blockers, CCBs, potassium channel openers & others drugs

Nitrates

MOA-



Pharmacological actions

1. Vascular smooth muscles -

- ✓ Preload reduction (prominent action)
- ✓ Afterload reduction
- ✓ Redistribution of coronary blood flow

a) Dilatation of capacitance vessels



Pooling of blood in veins



Decrease venous return to heart



decrease preload



decrease in end diastolic pressure



decrease in O_2 demand



b)

Arteriolar dilatation



decrease peripheral resistance



decrease afterload



decrease in cardiac work

c) Relaxation of coronary arteries



redistribution of blood flow to ischaemic areas in angina patients

2. Relaxation of smooth muscles of the bronchi, biliary tract & esophagus