

Nitroglycerine (NTG)

McHenry Western Lake County
EMS



Objectives

- During this session we will discuss:
- Class
- Actions
- Indications
- Contraindications
- Dosing/Routes
- How supplied
- Precautions
- Side effects



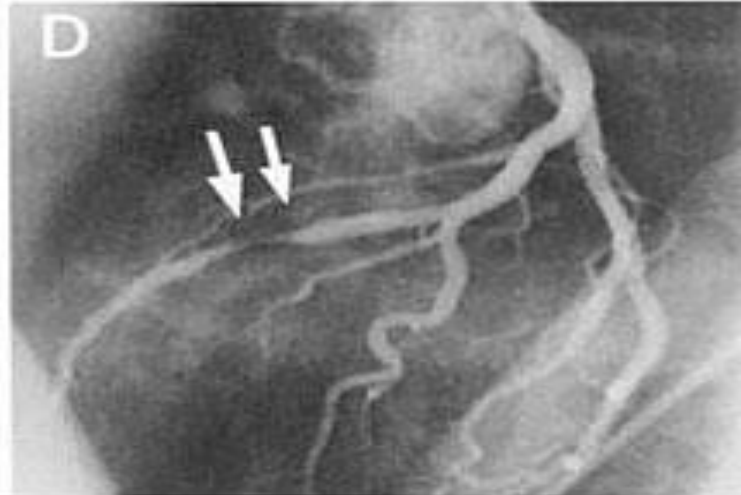
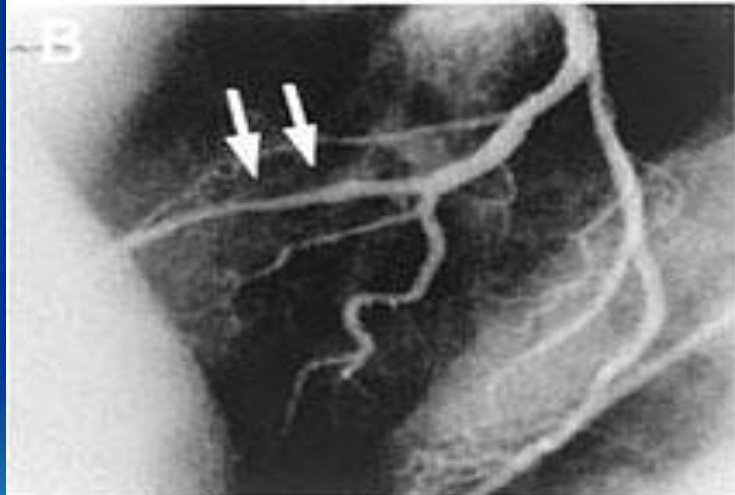
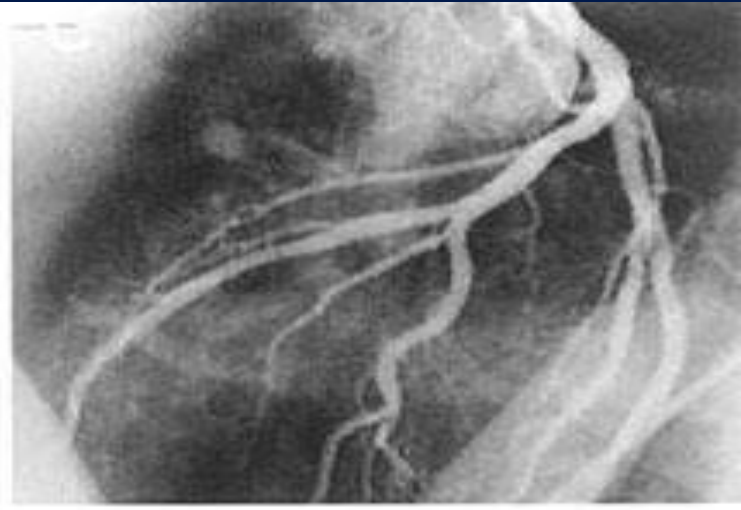
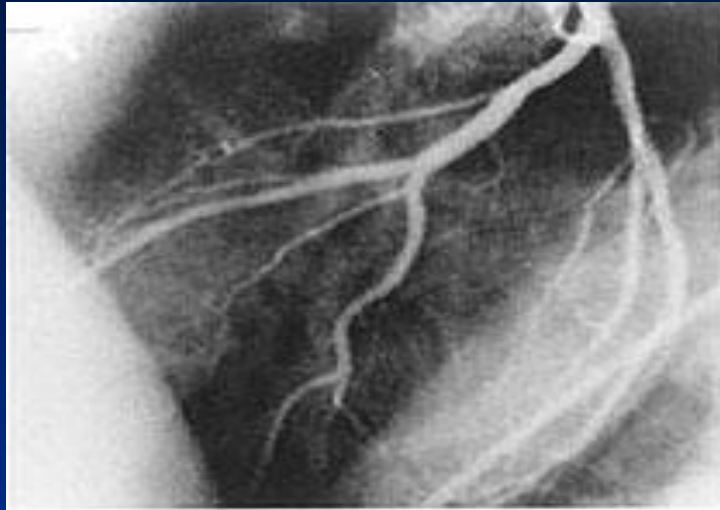
Class:

- Coronary vasodilator
- Chemical Class: Nitrate



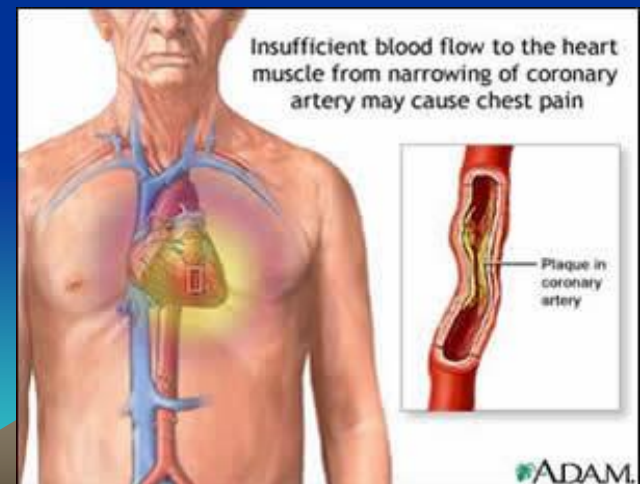
Actions:

- Dilates coronary vessels
- Relieves vasospasm and \uparrow coronary collateral blood flow to ischemic myocardium.
- Vascular smooth muscle relaxant; dilates veins to \downarrow preload
- Higher doses dilate arterioles = \downarrow afterload



Indications:

- Acute coronary syndromes with suspected ischemic pain
- Pulmonary edema
- Hypertensive crisis with chest pain/pulmonary edema



Dosing/Routes:

- 0.4 mg tabs SL or spray.
- May repeat q 3-5 minutes up to 3 doses for ACS.
- Unlimited doses for pulmonary edema as long as B/P >90 / DBP > 60 (MAP >65)
- If B/P 90-100 start IV prior to 1st NTG
- Let tab dissolve naturally; may need to drop NS over tab if mouth is very dry.



Dosing/Routes

- With evidence of AMI: Limit B/P drop to 10% if normotensive, 30% if hypertensive, and avoid drop below 90.
- Pt should sit or lie down when receiving the drug.



How supplied:

- Bottle with 0.4g tabs
- Metered Spray Bottle



Contraindications:

- If patient has taken Viagra or Levitra within 24 hours or Cialis within 48 hours; Contact medical control for risk/benefit analysis



Contraindications

- Hypotension (SPB<90) or more than 30 mmHg below baseline.
- Severe bradycardia
- Tachycardia (P>100)
- Hypoglycemia
- ↑ ICP; Glaucoma
- Peds <12



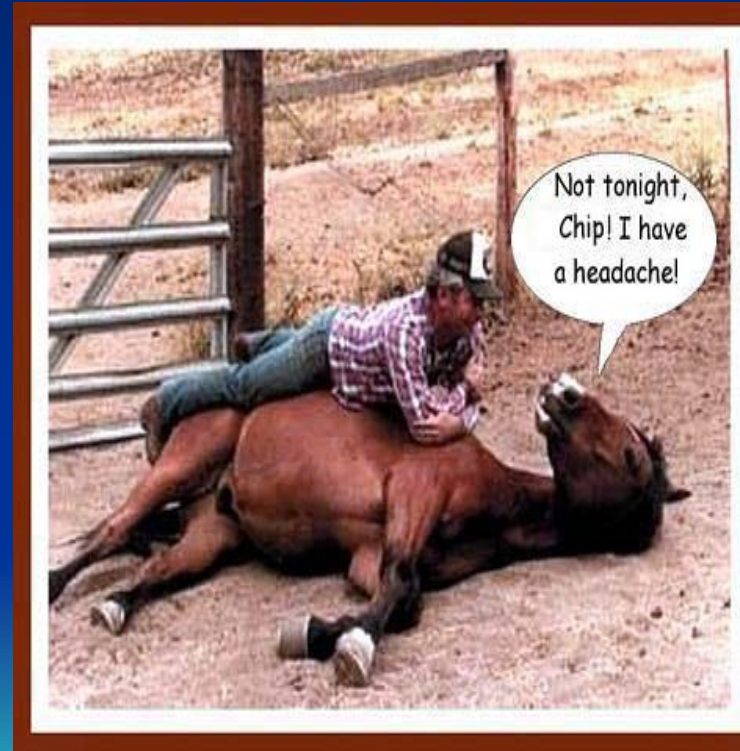
Precautions:

- Use NTG with caution or not at all in patients with inadequate RV preload or those that are preload dependant (RV infarct)
- Contact medical control for orders



Side effects/adverse reactions:

- CNS: Headache
- CV: Hypotension (postural often transient and will respond to NS)
- CNS: Flushed skin
- CNS: Dizziness, syncope
- CV: Ringing in the ears
- Burning under the tongue
- GI: Nausea/vomiting
- Ref: MWLCEMS Protocol and 2000 Mosby's Nursing Drug Reference Book



Case Study

- You have been called to the scene of a 54 y/o male that is having chest pains. He rates the pain at an 8/10. He has no past medical history and tells you he takes no meds daily. What question should you still ask this patient before giving him the first NTG.



Answer

- Have you taken Viagra, Levitra or Cialis in the past 24-48 hours?



Question?

- If he has not taken it, what is the dose of NTG he should be given for his chest pain.



Answer

- 0.4 mg tab SL or a spray.
- May repeat q 3-5 minutes up to 3 doses.
- Monitor the patients B/P
- If B/P 90-100 start IV prior to 1st NTG

