

# Nitroglycerin

## GENERIC NAME

Nitroglycerin

## TRADE NAME

Nitrostat

## DESCRIPTION

Nitroglycerin is a potent smooth muscle relaxant used primarily in the treatment of angina pectoris. It causes vasodilation, reducing cardiac workload and increasing coronary blood flow.

## HOW SUPPLIED

Tablet or spray: 0.4 mg per tablet or spray

## INDICATIONS

- Chest pain indicative of acute coronary syndrome (ACS)

## CONTRAINDICATIONS

- Allergy or hypersensitivity to Nitroglycerin
- Systolic blood pressure less than 120 mmHg if no 12-lead ECG has been obtained
- Systolic blood pressure less than 90 mmHg with a 12-lead ECG, and no signs of inferior MI
- Inferior MI indicated on 12-lead ECG (no nitrates should be given)
- Patient has taken erectile dysfunction medication (Sildenafil/Viagra, Tadalafil/Cialis, Vardenafil/Levitra) within the past 48 hours

## MECHANISM OF ACTION

Nitroglycerin relaxes smooth muscle, causing vasodilation. This results in decreased preload and reduced cardiac workload, as well as increased coronary blood flow and perfusion of the heart. Pain relief typically occurs within 1-2 minutes, and therapeutic effects last up to 30 minutes.

## SIDE EFFECTS

- Headache
- Dizziness
- Weakness
- Tachycardia
- Hypotension

## AUTHORIZATION

**EMT:** Not authorized

**AEMT:** Standing order (1 dose only)

**Paramedic:** Standing order

## DOSAGE

Patient Type	Route	Dosage	Frequency	Maximum Doses
Adult	Sublingual (SL)	0.4 mg	Every 3-5 minutes	Up to 3 doses, or until pain is relieved or contraindication occurs
Pediatric	Not given	N/A		

## Administration Notes:

- Ensure blood pressure is monitored closely before and after each dose due to the risk of hypotension.
- If patient experiences significant hypotension, dizziness, or syncope, discontinue administration and reassess.
- Use with caution in patients who may have taken erectile dysfunction medications within the past 48 hours due to potential severe hypotension.

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