

ASPIRIN [ACETYLSALICYLIC ACID]

DRUG CLASSIFICATION	Salicylate; Prototypic Cyclooxygenase Inhibitor Nonsteroidal Anti-Inflammatory Agent Nonopioid Analgesic Agent Antithrombotic Agent Antipyretic Agent
MECHANISM OF ACTION	Aspirin binds to acetylates serine residues in cyclooxygenases, irreversibly inhibiting COX-1 & COX-2 enzymes, resulting in decreased formation of pain-forming prostaglandin precursors. Aspirin also inhibits formation of thromboxane-A2 and prostacyclin, preventing platelet aggregation for about 7-10 days. The antipyretic effects of Aspirin are likely due to the drug's interference with production of brain prostaglandin E1. The onset of action for oral ingestion of uncoated Aspirin is approximately 1 hour or less; however, chewing uncoated Aspirin prior to ingestion produces a more rapid onset that occurs within 20 minutes.
CLINICAL INDICATIONS	Chest Pain; Suspected Acute Coronary Syndrome (ACS) ST-Elevated Myocardial Infarction (STEMI)
STANDARD CONTRAINDICATIONS	Hypersensitivity to Aspirin, Salicylates, NSAID's, or Other Relative Components Pediatric Population (Fits on PediaTape; Age ≤ 15 years; Weight ≤ 49 kg) Known History of Renal Insufficiency, Renal Disease, or Renal Transplant Known History of GI-Distress, GI-Bleeding, or GI-Ulcers
POTENTIAL ADVERSE EFFECTS	Bronchospasm / Hyperventilation / Abdominal Pain / Dyspepsia / Gastritis / GI-Bleeding / Nausea / Vomiting / Cerebral Edema / Intracranial Bleeding / Renal Failure / Acid-Base Disturbances / Dehydration / Diaphoresis / Dizziness / Tinnitus / Pruritus
GENERAL RISKS & PRECAUTION	1) When possible, avoid administering Aspirin to patients with a known history of Asthma, Rhinitis, and Nasal Polyps due an extremely high risk of AERD (Aspirin-Exacerbated Respiratory Disease) which, is also known as, Samter's Triad. 2) When possible, avoid Aspirin administration to patients with severe hepatic disease or liver failure; otherwise use severe caution. 3) Use with extreme caution for patients that have platelet and bleeding disorders. 4) Early signs of Aspirin toxicity consist of abdominal pain and vomiting while some later signs may consist of tachypnea, altered mental status, renal dysfunction, liver failure, and cerebral edema. 5) NSAID medications should not be used in the setting of environmental heat emergencies. 6) Consider withholding therapy until verifying that any recent previous intake of medication by a patient was the correct dose of non-coated Aspirin.
PROTOCOL INDEX	Chest Pain: Cardiac and STEMI (AC-4)
MEDICATION ADMINISTRATION	
ADULT	PEDIATRIC
Suspected Acute Coronary Syndrome (ACS) Chest Pain and STEMI (4) non-coated 81 mg Aspirin tablets = desired dose of: 324 mg [PO-chewed]	CONTRAINDICATED