



## ❖ Introduction to NSAIDs

Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) are among the most commonly prescribed medications by dentists to control **pain & inflammation** in daily clinical practice.

### 🦷 Role of NSAIDs in Dentistry

- Dentists frequently prescribe NSAIDs for:

- Pulpal & periapical diseases
- Tooth extraction pain
- Root canal infections
- Oral implant surgery
- Acute & chronic orofacial pain



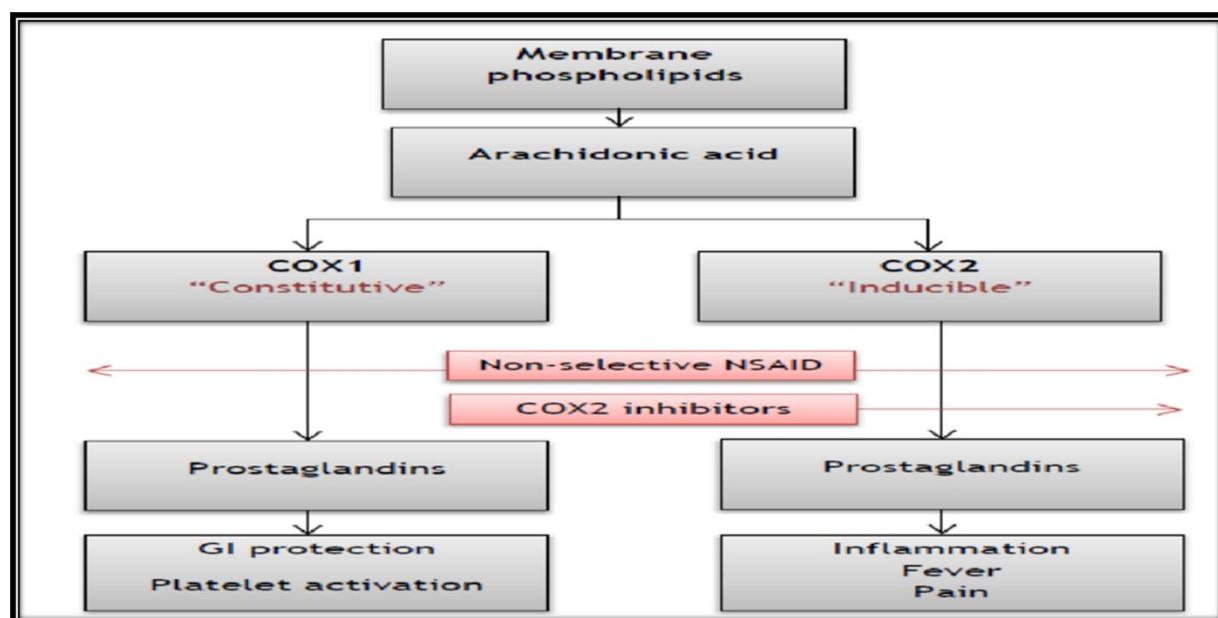
- The selection of a specific NSAID should be based not only on **pain severity** but also on:

- Patient's medical history
- Risk factors
- Systemic conditions

⚠ Lack of awareness about NSAIDs' adverse effects (GI irritation, cardiovascular risks, renal issues, dizziness, headache) may lead to serious complications.

### ✍ Historical Background

- 1860: Kolbe Company (Germany) started mass production of **salicylic acid**.
- 1899: Bayer introduced **acetylsalicylic acid (Aspirin)** in powder then tablet form (more acceptable to patients).
- 1960: Pharmacologist **Sir John Vane** discovered that NSAIDs work by inhibiting the **cyclooxygenase enzyme (COX)** → ↓ Prostaglandin synthesis → ↓ Pain & inflammation.



## 🎯 Indications of NSAIDs

⚡ NSAIDs are widely used as:

- Analgesic (مسكن)
- Antipyretic (خافض حرارة)
- Anti-inflammatory (مضاد التهاب)

### ◆ Common Clinical Uses

- ✓ Mild to moderate acute pain (First-line: Paracetamol & NSAIDs)
- ✓ Dental & post-operative pain
- ✓ Sprains and soft tissue injuries (oral & topical forms)
- ✓ Osteoarthritis & Rheumatoid arthritis
- ✓ Dysmenorrhea
- ✓ Migraine & headache



🦷 In dental practice:

**Ibuprofen 400 mg** is highly effective for postoperative dental pain, especially after surgical procedures, with fast and reliable analgesia (gel forms give faster relief).

👵 For elderly patients ( $\geq 75$  years):

Topical NSAIDs are preferred due to:

- Similar efficacy
- Lower systemic side effects
- Significant pain reduction within first 48 hours

## 🚫 Contraindications of NSAIDs

- ✗ Asthma (NSAID-sensitive)
- ✗ Cardiovascular diseases
- ✗ Renal disease with fluid retention
- ✗ Coagulation disorders
- ✗ Peptic ulcer disease
- ✗ Pregnancy (especially late pregnancy)
- ✗ Aspirin contraindicated in children

- Under 16 years (UK)
- Under 19 years (FDA)

### 🏆 Clinical Tip

💡 In dental pain management, **Ibuprofen** is considered one of the most effective first-line NSAIDs due to its strong analgesic and anti-inflammatory action with acceptable safety profile when properly prescribed.



## NSAID selectivity

