

and is excreted via the kidneys. In this instance, too much uric acid is produced, or not enough is excreted by the kidneys. Medications used for treating gout are often not administered until the acute attack is over. If medications are given during a gout attack, uric acid may migrate to additional joints. Symptoms of a gout attack are treated first with NSAIDs. High doses may be prescribed to halt an acute attack, and lower doses may be used to prevent future attacks. For patients unable to take NSAIDs, Colcrys (colchicine) is used to relieve the pain. In addition, patients may be given glucocorticoids to control pain and inflammation. When the acute attack has ended, patients start taking antigout medication such as Zylprim (allopurinol) or Uloric (febuxostat) to lower the uric acid level in the body.

NSAIDs

NSAIDs reduce inflammation, which is helpful to the patient with gout, osteoarthritis, or rheumatoid arthritis. Some of the concerns regarding NSAIDs are increased gastrointestinal bleeding and renal and cardiac damage caused by long-term use. Thus, these medications should be taken only as ordered, and long-term use should be monitored closely. Aspirin and other analgesics are used for pain. Topical medications containing medication such as menthol, salicylate, and trolamine are usually creams or gels that are rubbed into muscles and joints. Examples are Absorbine, Bengay, Icy Hot, and capsaicin. Stronger pain relief can be obtained by combining analgesics and antidepressants.

Cyclooxygenase-2 Inhibitors

Cyclooxygenase-2 (COX-2) inhibitors (celecoxib [Celebrex]), which technically belong to the larger group of NSAIDs, decrease the production of prostaglandins that cause pain and inflammation. Generally, NSAIDs block the production of both COX-1 and COX-2 enzymes. COX-2 inhibitors block only the production of the COX-2 enzyme and allow the COX-1 enzyme to continue to be produced. COX-1 enzymes are present in many tissues in the body, such as the stomach, where they provide protection to the stomach and intestines. By allowing this enzyme to continue production, the risk for ulceration and bleeding with prolonged use is reduced. COX-2 inhibitors cannot be used by patients who are allergic to sulfa drugs. These medications can also increase the risk for heart problems in certain patients.

Disease-Modifying Antirheumatic Drugs (DMARDs)

If anti-inflammatory drugs do not reduce the inflammation adequately, **disease-modifying antirheumatic drugs (DMARDs)** may be used in patients with rheumatoid arthritis. These medications suppress the

Drug Spotlight 12-2 Capsaicin

Classification	Analgesic
Availability	Topical cream, gel, lotion, and transdermal patch.
Indications	Used for pain relief from disorders such as diabetic neuropathy, cluster headaches, osteoarthritis, rheumatoid arthritis, shingles, and psoriasis
Action	Effective by activating the nerve signals and then decreasing them; patient may have initial increase in pain, followed by relief. Active ingredient comes from the substances that make hot peppers hot, such as chili
Dosage	Topical: May be used up to four times a day Transdermal: Apply up to 4 patches for 60 minutes.
Adverse Reactions/ Side Effects	Side effects: Hypersensitivity reaction
Contraindications/ Precautions	Education: Wash hands well after use to avoid transference to eyes, mouth, or other mucous membranes; do not apply to areas of broken skin