

For the use of a Registered Medical Practitioner or a Hospital or a Laboratory only.

**Zycel Capsules**  
**Celecoxib Capsules**

**Composition :**

Zycel 100  
Each hard gelatin capsule contains:  
Celecoxib 100mg  
Approved colours used in capsule shell,  
Zycel 200  
Each hard gelatin capsule contains:  
Celecoxib 200mg  
Approved colours used in capsule shell.

**Description :**

Celecoxib is a selective inhibitor of cyclo-oxygenase enzyme (COX-2 isoform) and possesses anti-inflammatory activity with little or no gastric side effects. It is 375-fold more effective as an inhibitor of COX-2 than of COX-1 isoform. Celecoxib is chemically designated as 4-[5-(4-methylphenyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl] benzenesulfonamide and is a diaryl substituted pyrazole. The empirical formula for celecoxib is C<sub>17</sub>H<sub>14</sub>F<sub>3</sub>N<sub>3</sub>O<sub>2</sub>S, and the molecular weight is 381.38.

**Pharmacokinetics :**

Peak plasma levels of celecoxib occur approximately 3 hrs after an oral dose. Both peak plasma levels (C<sub>max</sub>) and area under the curve (AUC) are roughly dose proportional across the clinical dose range of 100-200mg studied. Celecoxib capsules can be administered without regard to the timing of meals. It is highly protein bound (approx 97%) within the clinical dose range. In vitro studies indicate that celecoxib binds primarily to albumin and, to a lesser extent, to  $\mu_1$ -acid glycoprotein. Celecoxib metabolism is primarily mediated via cytochrome P450 enzyme system. Three metabolites have been identified in the human plasma and all these are inactive as COX-1 or COX-2 inhibitors. Celecoxib is eliminated predominantly by hepatic metabolism with little (<3%) unchanged drug recovered in the urine and feces. Following a single oral dose of radiolabeled drug, approximately 57% of the dose was excreted in the feces and 27% was excreted into the urine. The effective half-life is approximately 11 hours under fasting conditions.

**Indications :**

Zycel is indicated for the relief of the signs and symptoms of osteoarthritis and rheumatoid arthritis in adults.

**Contraindications :**

Zycel is contraindicated in patients with known hypersensitivity to celecoxib. It should not be given to patients who have demonstrated allergic-type reactions to sulfonamides. Zycel should also not be given to patients who have experienced asthma, urticaria, or allergic-type reactions after taking aspirin or other NSAIDs. Severe, rarely fatal, anaphylactic-like reactions to NSAIDs have been reported in such patients. Zycel is also contraindicated for use in patients immediately post-operative from coronary artery bypass (CABG) surgery.

**Precautions and Warnings :**

An increased risk of serious cardiovascular (CV) events has been observed with all non-steroidal anti-inflammatory drugs (NSAIDs) (excluding aspirin), including celecoxib. There is also a risk of serious, and potentially life threatening, gastrointestinal bleeding with all NSAIDs including celecoxib.

Serious gastrointestinal toxicity such as bleeding, ulceration, and perforation of the stomach, small intestine or large intestine, can occur at any time, with or without warning symptoms, in patients treated with nonsteroidal anti-inflammatory drugs (NSAIDs).

Minor upper gastrointestinal problems, such as dyspepsia, are common and may also occur at any time during NSAID therapy. NSAIDs should be prescribed with extreme caution in patients with a prior history of ulcer disease or gastrointestinal bleeding. Most spontaneous reports of fatal GI events are in elderly or debilitated patients and therefore special care should be taken in treating this population. To minimize the potential risk for an adverse GI event, the lowest effective dose should be used for the shortest possible duration.

Since no information is available regarding the use of Celecoxib in patients with advanced kidney disease, it is not recommended in these patients. Celecoxib should be avoided in late pregnancy because it may cause premature closure of the ductus arteriosus. It should be given with great caution to patients with symptoms and/or signs suggesting liver dysfunction, or in whom an abnormal liver test has occurred. Celecoxib should also be used with caution in patients with fluid retention, hypertension, or heart failure since development of edema has been reported in a few patients.

Physicians should carefully weigh and discuss the potential benefits and risks of celecoxib and other treatment options for the condition to be treated before a decision is made to use Zycel. If Zycel is selected for an individual patient, it is advised that the lowest effective dose for the shortest duration consistent with the individual patient treatment goals be used.

**Drug Interactions :**

- 1) **ACE-inhibitors:** Reports suggest that NSAIDs may diminish the antihypertensive effect of Angiotensin Converting Enzyme (ACE) inhibitors. This interaction should be given consideration in patients taking Celecoxib concomitantly with ACE-inhibitors.
- 2) **Furosemide:** Clinical studies, as well as postmarketing observations, have shown that NSAIDs can reduce the natriuretic effect of furosemide and thiazides in some patients. This response has been attributed to inhibition of renal prostaglandin synthesis.
- 3) **Aspirin:** Celecoxib can be used with low dose aspirin. However, concomitant administration of aspirin with Celecoxib may result in an increased rate of GI ulceration or other complications, compared to use of Celecoxib alone.
- 4) **Fluconazole:** Concomitant administration of fluconazole at 200 mg QD resulted in a two-fold increase in Celecoxib plasma concentration. This increase is due to the inhibition of Celecoxib metabolism via P450 2C9 by fluconazole. Celecoxib should be introduced at the lowest recommended dose in patients receiving fluconazole.
- 5) **Lithium:** Mean steady-state lithium plasma levels increased approximately 17% in subjects receiving lithium 450 mg BID with Celecoxib 200 mg BID as compared to subjects receiving lithium alone. Patients on lithium treatment should be closely monitored when Celecoxib is introduced or withdrawn.
- 6) **Warfarin:** Celecoxib did not alter the anticoagulant effect of warfarin as determined by prothrombin time. However, caution should be used when administering Celecoxib with warfarin since these patients are at increased risk of bleeding complications.

**Nursing Mothers :**

It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk and because of the potential for serious adverse reactions in nursing infants from Celecoxib, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

**Pediatric Use :**

Safety and effectiveness in pediatric patients below the age of 18 years has not been evaluated.

**Adverse Reactions :**

Adverse reactions reported with Celecoxib include the following :

- a) **Gastrointestinal :** Abdominal pain, Diarrhoea, Dyspepsia, Flatulence, Nausea
- b) **Body as a whole :** Back pain, Peripheral edema
- c) **Central and peripheral nervous system :** Dizziness, Headache
- d) **Psychiatric :** Insomnia
- e) **Respiratory :** Pharyngitis, Rhinitis, Sinusitis, Upper respiratory tract infection
- f) **Skin :** Rash

**Overdosage :**

Symptoms following acute NSAID overdoses are usually limited to lethargy, drowsiness, nausea, vomiting, and epigastric pain, which are generally reversible with supportive care. Gastrointestinal bleeding can occur. Hypertension, acute renal failure, respiratory depression and coma may occur, but are rare. Anaphylactoid reactions have been reported with therapeutic ingestion of NSAIDs, and may occur following an overdose. Patients should be managed by symptomatic and supportive care following an NSAID overdose. There are no specific antidotes. No information is available regarding the removal of Celecoxib by hemodialysis, but based on its high degree of plasma protein binding (>97%) dialysis is unlikely to be useful in overdose. Emesis and/or activated charcoal (60 to 100 g in adults, 1 to 2 g/kg in children) and/or osmotic cathartic may be indicated in patients seen within 4 hours of ingestion with symptoms or following a large overdose. Forced diuresis, alkalinization of urine, hemodialysis, or hemoperfusion may not be useful due to high protein binding.

**Dosage and Administration :**

The lowest dose of Zycel should be sought for each patient.

**Osteoarthritis :**

For relief of the signs and symptoms of Osteoarthritis, the recommended oral dose is 200mg per day administered as a single dose or as 100mg twice per day.

**Rheumatoid arthritis :**

For relief of the signs and symptoms of rheumatoid arthritis, the recommended oral dose is 100 to 200 mg twice per day.

**Presentation :**

Pack of 10's

STORE UPTO 30°C.  
PROTECT FROM LIGHT.

Manufactured by :  
Cadila Healthcare Limited,  
Kundaim Industrial Estate, Plot No. 203-213,  
Kundaim, Goa-403 115, INDIA.

**Zyclus**  
**Cadila**