Since budesonide is a glucocorticosteroid, general warnings concerning Budesonide Capsules outsert-JPC 091316 r3.qxp_18.75 x 16.5  9/13/16  12:14 AM  Page 1

Budesonide Capsules (Enteric Coated) are hard gelatin capsules with a pink opaque cap and white opaque body printed "Budesonide 3 mg capsules (enteric coated) are indicated for the treatment of mild to moderate active Crohn's disease involving the ileum and/or the ascending colon.

Budesonide capsules (enteric coated) should be swallowed whole and are not to be divided, chewed, or crushed.

Table 1 shows the estimated dose of budesonide as a percentage of the total dose in each group.

![Table 1: Estimated Dose of Budesonide](https://via.placeholder.com/500)

### Budesonide Capsules (Enteric Coated)

**Description:** Budesonide capsules (enteric coated) are indicated for the treatment of mild to moderate active Crohn's disease involving the ileum and/or the ascending colon.

**Dosage:** Budesonide capsules (enteric coated) are available in strengths of 3 mg and 6 mg.

**Administration:** Budesonide capsules (enteric coated) should be swallowed whole and are not to be divided, chewed, or crushed.

**Contraindications:** Budesonide capsules (enteric coated) are contraindicated in patients with hypersensitivity to budesonide or any of the other ingredients in the capsules.

**Warnings and Precautions:** Budesonide capsules (enteric coated) should be used with caution in patients with a history of peptic ulcer disease or those who have a history of gastritis.

**Drug Interactions:** Budesonide capsules (enteric coated) should be used with caution in patients taking medications that increase the risk of gastric irritation or peptic ulceration.

**Adverse Reactions:** The most common adverse reactions reported during the clinical trials were headache, nausea, and upper respiratory tract infections.

**Dosage and Administration:** Budesonide capsules (enteric coated) should be taken once daily, usually in the morning, after breakfast.

**Overdosage:** In the event of an overdose, supportive and symptomatic treatment should be provided.

### Budesonide Capsules (Enteral Coated)

**Description:** Budesonide capsules (enteral coated) are indicated for the treatment of mild to moderate active Crohn's disease involving the ileum and/or the ascending colon.

**Dosage:** Budesonide capsules (enteral coated) are available in strengths of 3 mg and 6 mg.

**Administration:** Budesonide capsules (enteral coated) should be swallowed whole and are not to be divided, chewed, or crushed.

**Contraindications:** Budesonide capsules (enteral coated) are contraindicated in patients with hypersensitivity to budesonide or any of the other ingredients in the capsules.

**Warnings and Precautions:** Budesonide capsules (enteral coated) should be used with caution in patients with a history of peptic ulcer disease or those who have a history of gastritis.

**Drug Interactions:** Budesonide capsules (enteral coated) should be used with caution in patients taking medications that increase the risk of gastric irritation or peptic ulceration.

**Adverse Reactions:** The most common adverse reactions reported during the clinical trials were headache, nausea, and upper respiratory tract infections.

**Dosage and Administration:** Budesonide capsules (enteral coated) should be taken once daily, usually in the morning, after breakfast.

**Overdosage:** In the event of an overdose, supportive and symptomatic treatment should be provided.

### Budesonide Capsules (Parenteral Coated)

**Description:** Budesonide capsules (parenteral coated) are indicated for the treatment of mild to moderate active Crohn's disease involving the ileum and/or the ascending colon.

**Dosage:** Budesonide capsules (parenteral coated) are available in strengths of 3 mg and 6 mg.

**Administration:** Budesonide capsules (parenteral coated) should be swallowed whole and are not to be divided, chewed, or crushed.

**Contraindications:** Budesonide capsules (parenteral coated) are contraindicated in patients with hypersensitivity to budesonide or any of the other ingredients in the capsules.

**Warnings and Precautions:** Budesonide capsules (parenteral coated) should be used with caution in patients with a history of peptic ulcer disease or those who have a history of gastritis.

**Drug Interactions:** Budesonide capsules (parenteral coated) should be used with caution in patients taking medications that increase the risk of gastric irritation or peptic ulceration.

**Adverse Reactions:** The most common adverse reactions reported during the clinical trials were headache, nausea, and upper respiratory tract infections.

**Dosage and Administration:** Budesonide capsules (parenteral coated) should be taken once daily, usually in the morning, after breakfast.

**Overdosage:** In the event of an overdose, supportive and symptomatic treatment should be provided.

### Budesonide Capsules (Rectal Coated)

**Description:** Budesonide capsules (rectal coated) are indicated for the treatment of mild to moderate active Crohn's disease involving the ileum and/or the ascending colon.

**Dosage:** Budesonide capsules (rectal coated) are available in strengths of 3 mg and 6 mg.

**Administration:** Budesonide capsules (rectal coated) should be swallowed whole and are not to be divided, chewed, or crushed.

**Contraindications:** Budesonide capsules (rectal coated) are contraindicated in patients with hypersensitivity to budesonide or any of the other ingredients in the capsules.

**Warnings and Precautions:** Budesonide capsules (rectal coated) should be used with caution in patients with a history of peptic ulcer disease or those who have a history of gastritis.

**Drug Interactions:** Budesonide capsules (rectal coated) should be used with caution in patients taking medications that increase the risk of gastric irritation or peptic ulceration.

**Adverse Reactions:** The most common adverse reactions reported during the clinical trials were headache, nausea, and upper respiratory tract infections.

**Dosage and Administration:** Budesonide capsules (rectal coated) should be taken once daily, usually in the morning, after breakfast.

**Overdosage:** In the event of an overdose, supportive and symptomatic treatment should be provided.
• **Adrenal suppression.** When budesonide capsules (enteric coated) are taken for a long period of time (chronic use), adrenal suppression can happen. This is a condition in which the adrenal glands do not make enough steroid hormones. Symptoms of adrenal suppression include tiredness, weakness, weakness, nausea and vomiting, and low blood pressure. Tell your healthcare provider if you are under stress or have any symptoms of adrenal suppression during treatment with budesonide capsules (enteric coated).

• **Immune system effects and a higher chance of infections.** Budesonide capsules (enteric coated) weaken your immune system. Taking medicines that weaken your immune system makes you more likely to get infections. Avoid contact with people who have contagious diseases such as chicken pox or measles, while taking budesonide capsules (enteric coated).

Tell your healthcare provider about any signs or symptoms of treatment during treatment with budesonide capsules (enteric coated), including:

- fever
- chills
- pain
- feeling tired
- aches
- nausea and vomiting

• **Worsening of allergies.** If you take certain other glucocorticosteroid medicines to treat allergies, switching to budesonide capsules (enteric coated) may cause your allergies to come back. These allergies may include eczema (a skin disease) or rhinitis (inflammation inside your nose). Tell your healthcare provider if any of your allergies become worse while taking budesonide capsules (enteric coated).

The most common side effects of budesonide include:

- headache
- infection in your air passages (respiratory infection)
- back pain
- upset stomach
- dizziness
- abdominal pain
- excessive stomach or intestinal gas
- diarrhea
- sinus infection
- viral infection
- joint pain

Tell your healthcare provider if you have any side effect that bothers you or that does not go away.

These are not all of the possible side effects of budesonide. For more information, ask your healthcare provider or pharmacist. Call your healthcare provider for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

How should I store budesonide capsules (enteric coated)?

- Store budesonide capsules (enteric coated) at 59°F to 86°F (15°C to 30°C).
- Keep budesonide capsules (enteric coated) in a tightly closed container.
- Keep budesonide capsules (enteric coated) and all medicines out of reach from children.

General information about budesonide capsules (enteric coated)

Medicines are sometimes prescribed for purposes other than those listed in Patient Information leaflets. Do not use budesonide capsules (enteric coated) for a condition for which they were not prescribed. Do not give budesonide capsules (enteric coated) to other people, even if they have the same symptoms you have. It may harm them.

This Patient Information leaflet summarises the most important information about budesonide capsules (enteric coated). If you would like more information, talk with your healthcare provider. You can ask your pharmacist or pharmacist for information about budesonide capsules (enteric coated) that is written for health professionals. For more information call Mayne Pharma at 1-844-825-8500.

What are the ingredients in budesonide capsules (enteric coated)?

Active ingredient: budesonide, USP

Inactive ingredients: acetyl/tobutyl citrate, ethylcellulose, hypromellose, methylcellulose, propylene glycol, polysorbate 80, sodium lauryl sulfate, sugar spheres (sucrose and corn starch), talc, and triethyl citrate. The capsule shell has the following inactive ingredients: gelatin, D&C blue #2, D&C red #30 aluminu, D&C red #33, and titanium dioxide. In addition, the black ink 5-1-9114-1/F-1101 contains, black iron oxide, D&C yellow #10 aluminum lake, FD&C blue #1 brillant blue FCF aluminum lake, FD&C blue #2 indigo carmine aluminum lake, FD&C red #40 aluminu, FD&C red #40 lake, FD&C yellow #6, and gelatin.

This Patient Information has been approved by the U.S. Food and Drug Administration.

Manufactured by:
Actavis Elizabeth LLC
Elizabeth, NJ 07207 USA

Distributed by:
Mayne Pharma
Greenville, NC 27834

40-9272
(PIL R1-22691016)

Budesonide, USP is a white to off-white, tasteless, colorless powder that is practically insoluble in water and slightly soluble in dry ethyl alcohol. It is stable under normal storage conditions and highly resistant to degradation by acid and base hydrolysis. Budesonide, USP is an esterified glucocorticoid derivative, which is structurally related to prednisolone. It has been shown to have about 1000 times greater potency in inhibiting the production of interleukin-1 (IL-1) and tumor necrosis factor alpha (TNF-alpha) by the monokine gene induction (MGI) assay, than its analogues prednisolone and triamcinolone acetonide. In addition, it is 200 times more potent than prednisolone in its effects on inhibiting T-lymphocyte proliferation and on the production of interferon (IFN)-gamma, a cytokine produced by T-lymphocytes.

12 CLINICAL PHARMACOLOGY
12.1 Mechanism of Action
Budesonide has a high glucocorticoid effect and a weak mineralocorticoid effect. It is a prodrug (a substance that needs to be metabolized) and the active metabolite is highly selective for glucocorticoid receptors. A high degree of selectivity is obtained through the modification of the target organ, which is the adrenal gland, and the use of the prodrug concept.

12.2 Pharmacokinetics
Budesonide has a high glucocorticoid effect and a weak mineralocorticoid effect. The formulation contains a prodrug of budesonide, and the active metabolite is highly selective for glucocorticoid receptors. This is obtained through the modification of the target organ, which is the adrenal gland, and the use of the prodrug concept.

Budesonide is well absorbed from the gastrointestinal tract, with peak plasma levels occurring approximately 2 hours after administration. Budesonide and its active metabolites are efficiently eliminated from the body without extensive first-pass metabolism. Budesonide and its active metabolites are efficiently eliminated from the body without extensive first-pass metabolism. Budesonide is metabolized via CYP3A4. Potent inhibitors of CYP3A4 can increase the plasma levels of budesonide several-fold. Co-administration of ketoconazole results in an eight-fold increase in AUC of budesonide, compared to budesonide alone.

13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility
Carcinogenicity studies with budesonide were conducted in rats and mice. In a two-year study in Sprague-Dawley rats, budesonide caused no evidence of tumorigenicity at oral doses up to 20 mg/kg q.d. Budesonide caused no evidence of tumorigenicity in mice at oral doses up to 12.5 mg/kg q.d. In a two-year study in NMRI mice, budesonide caused no evidence of tumorigenicity at oral doses up to 10 mg/kg q.d. Budesonide caused no evidence of tumorigenicity in male and female Sprague-Dawley rats at oral doses up to 20 mg/kg q.d. Budesonide caused no evidence of tumorigenicity in female CD rats at oral doses up to 10 mg/kg q.d. Budesonide caused no evidence of tumorigenicity in female B6C3F1 mice at oral doses up to 10 mg/kg q.d.

No significant changes were seen in the body weight or food consumption of rats or mice treated with budesonide. No significant effect on the reproductive capacities of male or female rats or mice was seen. In a 16-week study in male and female B6C3F1 mice, budesonide caused no evidence of tumorigenicity at oral doses up to 10 mg/kg q.d. Budesonide caused no evidence of tumorigenicity in female CD rats at oral doses up to 10 mg/kg q.d. Budesonide caused no evidence of tumorigenicity in female B6C3F1 mice at oral doses up to 10 mg/kg q.d.

13.2 Mutagenicity
Budesonide was not mutagenic in the following assays: in vitro bacterial reverse mutation assay (Ames assay), in vitro mammalian chromosome aberration assay, and in vivo mouse micronucleus assay.

13.3 Impairment of Fertility
Budesonide was not teratogenic in the following assays: in vivo rat pregnancy tests, in vivo rat lactation tests, and in vivo hamster implantation tests.

14 CLINICAL STUDIES

14.1 General Considerations
Patients should be advised that budesonide capsules (enteric coated) may cause systemic glucocorticosteroid effects of hypercorticism and adrenal suppression. Patients should be advised to avoid taking more than the recommended dose, or to discontinue therapy if the condition does not improve within 4 weeks.

Budesonide is metabolized via CYP3A4. A high degree of selectivity is obtained through the modification of the target organ, which is the adrenal gland, and the use of the prodrug concept. This is obtained through the modification of the target organ, which is the adrenal gland, and the use of the prodrug concept. This is obtained through the modification of the target organ, which is the adrenal gland, and the use of the prodrug concept. This is obtained through the modification of the target organ, which is the adrenal gland, and the use of the prodrug concept. This is obtained through the modification of the target organ, which is the adrenal gland, and the use of the prodrug concept. This is obtained through the modification of the target organ, which is the adrenal gland, and the use of the prodrug concept. This is obtained through the modification of the target organ, which is the adrenal gland, and the use of the prodrug concept.