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GENERIC NAME: calcitonin-salmon

BRAND NAME: Miacalcin, Fortical (Calcimar brand no longer available)

DRUG CLASS: Calcitonin-salmon is a man-made version of the hormone, calcitonin, that is found in salmon. Calcitonin is used for treating postmenopausal (after [menopause](#)) [osteoporosis](#) (bone loss), [Paget's disease](#) of bone, and [hypercalcemia](#) (high blood calcium levels). In humans, calcitonin is produced by the thyroid gland. It acts primarily on bone, but the mechanism of its action is not well understood. Bone is in a constant state of remodeling, whereby old bone is removed by cells called osteoclasts, and new bone is laid down by cells called osteoblasts. Calcitonin inhibits bone removal by osteoclasts, and promotes bone formation by osteoblasts.

After menopause, the rate of bone loss accelerates. In women with osteoporosis, calcitonin has been shown to increase bone density and strength.

Paget's disease is a bone disease characterized by a disorderly and accelerated remodeling of the bone, leading to bones that are weak and painful. Calcitonin reduces the turnover of bone and pain in patients with Paget's disease. The FDA approved calcitonin intranasal spray in March 1991.

PRESCRIPTION: Yes

GENERIC AVAILABLE: No

PREPARATIONS: Injection: 200 units/ml. Intranasal spray: 200 units/activation (0.09 ml/puff)

STORAGE: Calcitonin should be stored in a refrigerator between 2-8 C (36-46 F). It should be protected from freezing. Bottles of intranasal spray that are being used may be stored at room temperature between 15-30 C (59-86 F) for 30 days.

PRESCRIBED FOR: Injectable calcitonin is used to treat osteoporosis and Paget's disease. Injectable calcitonin also is used to treat seriously elevated blood calcium levels. The nasal spray is used only for osteoporosis in women who are at least 5 years postmenopausal.

DOSING: Injectable calcitonin is injected under the skin or into the muscle. The nasal spray is administered into the nostril. To achieve optimal results, patients with osteoporosis should simultaneously receive adequate amounts of calcium and vitamin D.

The recommended regimens for Paget's disease and post menopausal osteoporosis are 100 units per day injected into muscle or under the skin or 1 spray (200 units) per day administered in alternate nostrils. Increased blood calcium (hypercalcemia) is treated with 4-8 units/kg of injectable calcitonin every 6-12 hours

DRUG INTERACTIONS: Calcitonin is not associated with significant drug interactions.

PREGNANCY: There are no adequate studies of calcitonin in [pregnant women](#).

NURSING MOTHERS: There are no adequate studies of calcitonin in [nursing mothers](#).

SIDE EFFECTS: Side effects from calcitonin are uncommon and usually are mild. Injectable calcitonin can cause [nausea](#) with or without [vomiting](#) in 10% of patients. Nausea can occur with initial treatment and tends to disappear with continued use. Injectable calcitonin also can cause local redness of the skin at the site of injection. Flushing and skin [rash](#) are also seen. The nasal spray can cause [runny nose](#) (rhinorrhea), [nose-bleeding](#), bone pain and [headaches](#). The nausea that can occur with injectable calcitonin is unlikely to occur with the nasal spray. In rare instances, the nasal spray can cause an upset stomach.

Reference: FDA Prescribing Information