

# Dexamethasone

BRAND NAME: AZIUM or VOREN

## USES OF THIS MEDICATION

Dexamethasone is a member of the glucocorticoid/corticosteroid class of hormones. This means they are steroids but, unlike the anabolic steroids that we hear about regarding sports medicine, these are catabolic steroids. Instead of building the body up, they are designed to break down stored resources (fats, sugars and proteins) so that they may be used as fuels in times of stress. Cortisone would be an example of a related hormone with which most people are familiar. Glucocorticoid hormones are produced naturally by the adrenal glands.

We do not use glucocorticoids for their influences on glucose and protein metabolism; we use them because they are also the most broad anti-inflammatory medications that we have. Their uses fit into several groups:

Anti-inflammatory (especially for joint pain and itchy skin)

Immune-suppression (treatment of conditions where the immune system is destructively hyperactive. Higher doses are required to actually suppress the immune system.)

Cancer chemotherapy (especially in the treatment of lymphoma)

Central nervous system disorders (usually after trauma or after a disc episode to relieve swelling in the brain or spinal cord)

Shock (steroids seem to help improve circulation)

Blood calcium reduction (in medical conditions where blood calcium is dangerously high treatment is needed to reduce levels to normal)

## SIDE EFFECTS

Dexamethasone does not have activity in the kidney leading to the conservation of salt. This means that the classical side effects of corticosteroid use (excessive thirst and excessive urination) are less pronounced with this steroid than with others. This makes dexamethasone a more appropriate choice for patients with concurrent heart disease or other conditions requiring restricted salt intake.

Dexamethasone is commonly used for several weeks or even months at a time to get a chronic process under control. It is important that the dose be tapered slowly once the condition is controlled. The reason for this is that body will perceive these hormones and not produce any of its own. In time, the adrenal glands atrophy so that when the medication is discontinued, the patient is unable to respond to any stressful situation. A circulatory crisis can result. By using the medication every other day, this allows the body's own adrenal glands to remain active.

Any latent infections can be unmasked by dexamethasone use. Feline upper respiratory infections would be a classical example. When a cat recovers clinically, the infection simply goes dormant. Glucocorticoid use could bring the infection out again.

Glucocorticoid hormone use can be irritating to the stomach at higher doses.

## INTERACTIONS WITH OTHER DRUGS

Glucocorticoid hormones should not be used in combination with medications of the NSAID class (*i.e.*, aspirin, Rimadyl, Deramaxx, Feldene, phenylbutazone, etc.) as the combination of these medications could lead to bleeding in the stomach or intestine. Ulceration could occur.

## **CONCERNS AND CAUTIONS**

Dexamethasone is considered to be a long acting steroid, meaning that a dose lasts about two to three days. For this reason an every other day schedule is sometimes excessive for dexamethasone; every third day (or less) is eventually the goal for dexamethasone. Chemotherapy patients often start out once a day, and gradually decrease to every three days.

*Diabetic patients should never take this medication unless there is a serious or even life-threatening reason why they must.*

*Glucocorticoid hormones can cause abortion in pregnant patients. This class of hormone should not be used in pregnancy.*

Dexamethasone use is likely to change liver enzyme blood testing and interfere with testing for thyroid diseases.

Dexamethasone is approximately 10 times stronger than prednisone/prednisolone.

When dexamethasone is used routinely, serious side effects would not be expected. When doses become immune-suppressive (higher doses) or use becomes chronic (longer than 4 months at an every third day schedule), the side effects and concerns associated become different. In these cases, monitoring tests may be recommended or, if possible, another therapy may be selected.