# PredniSONE / PrednisoLONE

- Drug Information

***Brand Names:***

PredniSONE, Delta-Cortef®, PrednisTab®, Solu-Delta-Cortef®, Sterisol-20®, Meticorten®, Prelone®, Key-Pred 25®, Predalone 50®

***Pharmacology:***

Synthetic glucocorticoid

***Indications:***

Used in the treatment of many disease processes including adrenal insufficiency, rheumatoid arthritis, systemic lupus, allergies, asthma, dermatologic disease, hematologic disorders, neoplasia, nervous system disease, general inflammation, inflammatory bowel disease and nephrotic syndrome.

***ContraIndications:***

**- General**

Contraindicated in fungal, bacterial and viral disease.
Contraindicated in pregnancy except in cases where potential benefits outweigh the risk of teratogenicity. May also induce early parturition in late pregnancy.
IM injection is contraindicated in patients with idiopathic thrombocytopenia.
Animals on high dose or long term therapy should be tapered off.
Use with caution in heart disease, osteoporosis and diabetes.
Except in emergency situations don't use in patients with tuberculosis, chronic nephritis, Cushing's disease or GI ulceration.
Because PredniSONE requires conversion to the active compound PrednisoLONE by the liver, some clinicians believe that only PrednisoLONE should be used in patients with liver disease.

**- Large Animal**

May induce parturition in large animals.

***Interactions:***

**- General Interactions**

May cause increased glucose, cholesterol, potassium, and alkaline phosphatase blood levels.

**- Category Interactions**

- Acetylcholinesterase inhibitor

Anticholinesterase agents in myasthenia gravis patients with concurrent glucocorticoid use may cause profound muscle weakness.

- Antacid

Oral glucocorticoid absorption may be reduced.

- Anticoagulant

May result in increased or decreased anticoagulant activity.

- Corticosteroid

Other corticosteroids concurrently may increase the risk for side effects.

- Estrogen agent

Increased or prolonged glucocorticoid activity may result.

- Immunosuppressive drug

Additive immunosuppression is expected with other drugs that suppress immune response.

- Macrolide antibiotic

Increased or prolonged glucocorticoid activity may result.

- NSAID-Non Steroidal Antiinflammatory Drug

May increase risk for GI and renal effects

- Potassium Depleting Diuretic

Hypokalemia may result with other drugs that cause potassium loss.

- Ulcerogenic drug

Increased risk for GI ulceration is possible with other drugs that may cause GI ulceration.

- Vaccination

Live attenuated virus vaccines should not be given concurrently as virus replication may be

augmented.
Administration of vaccine, bacterin or toxoid may be less effective if given concurrently.

**- Drug Interactions**

- Amphotericin B

Hypokalemia may occur with amphotericin B.

- Aspirin / Acetylsalicylic acid

Salicylate levels may be reduced.

- Cyclophosphamide

Cyclophosphamide metabolism may be decreased.

- CycloSPORINE

CycloSPORINE will decrease metabolism of both when used concurrently and cause increased blood levels of both.

- Digoxin

Hypokalemia and digitalis concurrently increase the risk for digitalis toxicity.

- EPHEDrine sulfate

Increased or prolonged glucocorticoid activity may result.

- Erythromycin

Increased risk of drug toxicosis may result.

- Insulin

May increase the insulin requirements of diabetics.

- Ketoconazole

Increased or prolonged glucocorticoid activity may result.

- Mitotane

Mitotane may alter metabolism.

- PHENobarbital

PHENobarbital may increase glucocorticoid metabolism.

- Phenytoin sodium

Phenytoin may increase glucocorticoid metabolism.

- Rifampin

Rifampin may increase glucocorticoid metabolism.

- Theophylline

Activity of either may be altered.

## *Adverse Effects:*

**- General**

May lower seizure threshold, alter mood and behavior, diminish response to pyrogens and stimulate appetite.
Excessive doses can be teratogenic in early gestation.
High dose or long term use may inhibit growth in nursing newborns.
Polyuria, polydipsia and polyphagia are common.
Thinning of skin, alopecia, muscle atrophy and Cushing's disease are possible.
Panting, vomiting, diarrhea, elevated liver enzymes, GI ulceration, pancreatitis, lipidemia, worsening or activation of diabetes mellitus, depression, lethargy and aggression are also possible.
High dose may delay wound healing and decrease ability to fight infection.
May result in inhibition of endogenous steroid production after withdrawal - gradual withdrawal is advised to avoid iatrogenic adrenal suppression.

**- Small Animal**

- Cat

Cardiac disease or exacerbation of existing heart disease may be associated with the administration of long acting corticosteroids.

**- Large Animal**

May induce parturition in large animals.

## *Dosages:*

**- General**

It is advised to give the lowest effective dose as infrequently as is necessary if long term use is needed.

**- Small Animal**
- Dog
Respiratory disease:
Adjunctive treatment allergic bronchitis: PrednisoLONE sodium succinate: 2 - 4 mg/kg IV or IM (do not give via rapid IV infusion). In chronically symptomatic patient: PredniSONE 0.5 - 1.5 mg/kg/day by mouth.
Adjunctive therapy of collapsing trachea: Initially, PrednisoLONE 0.25 - 0.5 mg/kg by mouth twice daily for 7 - 10 days. Discontinue if no improvement in one week. Corticosteroids must be used cautiously in this condition and rarely make a difference in the long-term outcome of therapy.
Liver disease:
Cholangitis: PrednisoLONE 1 - 2 mg/kg by mouth once daily for at least 1 month. Then give every other day for another 2 - 3 months and consider discontinuing and monitoring for relapse.
Chronic lymphocytic-plasmacytic or autoimmune hepatitis: 2.2 mg/kg by mouth once daily for several weeks and then tapered to 1.1 mg/kg every other day. If dogs cannot tolerate or fail PredniSONE may add AzaTHIOprine
Copper-induced hepatopathy: PrednisoLONE 0.5 - 1 mg/kg by mouth divided twice daily (used during acute stages). Used with chelation therapy and dietary copper restriction.
GI disease:
Eosinophilic colitis: PrednisoLONE 1 - 2 mg/kg by mouth for 7 - 10 days. Gradually decrease dose over following 3 - 4 weeks to a minimal dosage that will control clinical signs. Some cases will require additional alternate-day therapy for an another 3 - 4 weeks.
Eosinophilic enteritis: PrednisoLONE 1 - 3 mg/kg by mouth once daily; gradually taper to every other day dosing for maintenance. May use injectable forms if dog is vomiting or malabsorption is severe. Therapy may be necessary for weeks to months. Do not use until intestinal biopsy sites are healed (usually 7 - 10 days) OR PredniSONE 0.5 mg/kg by mouth once daily initially; reduce gradually to alternate day therapy.
Plasmacytic/lymphocytic enteritis: PrednisoLONE 2.2 mg/kg by mouth divided twice daily for 5 - 10 days, then 1.1 mg/kg/day for 5 - 10 days. Then taper by reducing steroid dosage by 1/2 every 10 - 14 days until alternate-day dosage is attained or symptoms recur.
Adjunctive therapy of chronic superficial gastritis (if predominance of lymphocyte and plasma cell infiltration seen on biopsy): PredniSONE 0.5 - 1 mg/kg by mouth divided twice daily initially and reduced over a 3 month period to lowest, alternate-day effective dosage.
Ulcerative colitis: May cause some patients' condition to worsen. Use only after an unsuccessful trial of SulfaSALAzine. Use with caution. PrednisoLONE 1 - 2 mg/kg/day by mouth for 5 - 7 days; then 0.5 mg/kg/day for an additional 5 - 7 days; then 0.25 - 0.5 mg/kg by mouth every other day for 10 - 14 days. Continue SulfaSALAzine during steroid therapy. If significant improvement is not seen within the first 7 days of therapy, steroids are tapered and discontinued more rapidly.
Food allergy or intolerance: PredniSONE 0.5 mg/kg by mouth once daily; taper dose weekly if clinical response dictates. Discontinue when clinical remission ensues.
Adjunctive therapy of endotoxemia secondary to GDV: PrednisoLONE sodium succinate: 11 mg/kg IV
Adjunctive therapy of intestinal lymphangiectasia: PrednisoLONE 2 - 3 mg/kg/day. Once remission is attained, may taper to a maintenance dosage. Not all cases respond.
Adjunctive therapy of refractory wheat-sensitive enteropathy in Irish Setters: PrednisoLONE 0.5 mg/kg every 12 hours for one month. Then begin a reducing dosage schedule.
For dogs who respond poorly to conventional therapy (enzyme replacement, dietary modification, vitamin supplementation, & antibiotics) for exocrine pancreatic insufficiency: PrednisoLONE 1 - 2 mg/kg every 12 hours for 7 - 14 days. May reduce over 4 - 6 weeks as patient tolerates.
Adrenal disease:
Adjunctive treatment of hypoadrenal crisis: PrednisoLONE sodium succinate: 4 - 20 mg/kg IV over 2 - 4 minutes, preferably after ACTH response test is completed. IV normal saline is usually sufficient therapy during the first hour until ACTH response test is completed. PrednisoLONE sodium succinate may be repeated in 2 - 6 hours or dexamethasone may be added to IV infusion at 0.05 - 0.2 mg/kg every 12 hours. PrednisoLONE sodium succinate possess some mineralocorticoid activity, while dexamethasone does not.
Glucocorticoid supplementation in chronic or subacute adrenal insufficiency: PrednisoLONE 0.2 -

0.4 mg/kg by mouth per day.
Glucocorticoid supplementation if azotemia or other symptoms of glucocorticoid deficiency result: PrednisoLONE 0.1 - 0.3 mg/kg by mouth per day.
Glucocorticoid coverage before and after adrenal tumor removal: PrednisoLONE sodium succinate 1 - 2 mg/kg IV either at 1 hour prior to surgery or at the time of anesthesia induction. May also add to IV fluids and administer IV during the procedure. Repeat dosage at end of procedure; may give IM or IV. Glucocorticoid supplementation must be maintained using an oral product (initially PrednisoLONE 0.5 mg/kg twice daily, cortisone acetate 2.5 mg/kg twice daily, or dexamethasone 0.1 mg/kg once daily). Slowly taper to maintenance levels (PrednisoLONE 0.2 mg/kg once a day, or cortisone acetate 0.5 mg/kg twice daily) over 7 - 10 days. Should complications develop during the taper, reinitiate doses at 5 times maintenance. Most dogs can stop exogenous steroid therapy in about 2 months (based on an ACTH stimulation test).
Glucocorticoid "coverage" in animals who have iatrogenic secondary adrenocortical insufficiency and/or HPA suppression: Animals exhibiting mild to moderate signs of glucocorticoid deficiency: PrednisoLONE 0.2 mg/kg by mouth every other day.
For animals with HPA suppression undergoing a "stress" factor: PrednisoLONE sodium succinate 1 - 2 mg/kg just before and after stressful events (e.g., major surgery). Continue with lower dosages until at least 3rd post-operative day. Access to a water-soluble form of glucocorticoid should be available should animal "collapse."
For symptoms of glucocorticoid deficiency (anorexia, diarrhea, listlessness) or in well-controlled patients receiving mitotane (Lysodren®) therapy for hyperadrenocorticism undergoing a "stress": PredniSONE 2.2 mg/kg by mouth for 2 days, then 1 mg/kg for 2 days, then 0.5 mg/kg for 3 days, then 0.5 mg/kg every other day for one week, then stop. Reintroduce therapy or readjust dosage should symptoms recur.
For adjunctive or alternative medical management of hyperinsulinism: PredniSONE 0.5 mg/kg by mouth divided twice daily initially; increase dose as required to maintain euglycemia.
For adjunctive therapy of toxicosis:
Cholecalciferol toxicity: PredniSONE 1 - 2 mg/kg by mouth twice daily-three times daily.
Adjunctive therapy of endotoxicosis secondary to garbage or carrion ingestion: PrednisoLONE sodium succinate 5 - 7 mg/kg IV every 4 hours
Reproductive therapy:
In bitches prone to relapse after initial therapy of eclampsia (puerperal tetany): PredniSONE 0.25 mg/kg by mouth once daily during lactation and slowly withdrawn; PrednisoLONE 0.5 mg/kg twice daily
Heartworm disease:
Some clinicians consider steroids to be contraindicated during treatment for routine post-adulticide therapy as pulmonary thromboses may be promoted): PrednisoLONE 1 - 2 mg/kg by mouth divided twice daily. Reduce dosage over next 7 - 14 days.
Dogs with severe cough, hemoptysis, or extensive parenchymal involvement: Prior to adulticide therapy, PrednisoLONE 1 - 2 mg/kg by mouth divided twice daily and tapered over a 10 - 14 day period
For pneumonitis associated with occult heartworm disease: PredniSONE 1 - 2 mg/kg daily for 3 - 5 days. After steroids are stopped, give adulticide therapy immediately.
CNS disorders:
For granulomatous meningoencephalitis: PredniSONE: 1 - 2 mg/kg by mouth daily for the life of the patient.
For reticulosis: PredniSONE: 1 - 2 mg/kg/day by mouth until symptoms begin to subside, then begin taper. Continue low-dose once a day or every other day therapy indefinitely.
For adjunctive therapy of hydrocephalus: PredniSONE 0.25 - 0.5 mg/kg by mouth twice daily; continue if improvement is noted within one week and decrease dosage at weekly intervals to 0.1 mg/kg by mouth every other day eventually. Maintain dose for at least one month.
Cervical IVD: PrednisoLONE 0.5 mg/kg by mouth twice daily for 3 days, then 0.5 mg/kg once daily for 3 - 5 days.
Thoracolumbar IVD: PrednisoLONE 0.5 - 1 mg/kg SQ or by mouth twice daily for 2 - 3 days, then taper dosage over next 3 - 5 days
Cervical spondylopathy: For dogs with slowly progressive course and still ambulatory, use PredniSONE: 1 - 2 mg/kg by mouth divided twice daily initially. Gradually reduce dose every 2 weeks until reach 0.5 mg/kg by mouth every other day
Lumbosacral spondylopathy: PredniSONE: 1 mg/kg by mouth divided twice daily initially. Gradually reduce dose to 0.5 mg/kg by mouth every other day.

Adjunctive therapy of white dog shaker syndrome: PrediSONE 0.25 mg/kg by mouth twice daily for 10 days, then once a day for 10 days, then every other day for 10 days.
Adjunctive therapy of generalized tremor syndrome: PrednisoLONE 3 m/kg each AM for 5 days, then decreased to alternate mornings for 5 days, then begin a phased withdrawal of drug. May require long-term low-dose alternate day therapy.
Nonbacterial suppurative meningitis: After cultures are confirmed negative, PrediSONE 2 mg/kg for 10 days, then taper slowly over 1 month.
Adjunctive therapy of dogs diagnosed with canine wobbler syndrome with signs of mild to moderate paraparesis, tetraparesis, or ataxia: PrednisoLONE 1 - 2 mg/kg twice daily initially, decrease gradually over a 5 day period to 0.5 - 1 mg/kg on alternate days.
Blood disorders:
Autoimmune hemolytic anemia: PrednisoLONE 1 - 4 mg/kg by mouth daily divided twice daily. Add immunosuppressive agent (e.g., cyclophosphamide, AzaTHIOprine) if PCV does not stabilize within 48 - 72 hours. May take several months to wean off drugs.
Adjunctive therapy of pure red blood cell aplasia (PRCA): PrednisoLONE 2 mg/kg divided twice daily. If no increase in reticulocyte count in 2 weeks, increase to 4 mg/kg twice daily. If reticulocyte counts remain low after 4 - 6 weeks add cyclophosphamide (30 - 50 mg/m2 on 4 consecutive days each week). Continue PrednisoLONE. Discontinue cyclophosphamide if neutropenia or thrombocytopenia occur. If reticulocyte count increases, cyclophosphamide may be discontinued and PrednisoLONE slowly tapered to alternate day therapy.
Immune-mediated thrombocytopenia: PrednisoLONE 1 - 3 mg/kg by mouth divided twice daily-three times daily. Do not give IM injections. If platelet count increases, PrednisoLONE dose may be tapered by 50 per cent every 1 - 2 weeks. Reduction in dose should be done slowly over several months.
Dermatologic or other immune-mediated disorders:
Adjunctive therapy of urticaria and angioedema: PrediSONE 2 mg/kg by mouth or IM twice daily
Canine atopy: PrednisoLONE 0.5 mg/kg by mouth twice daily initially for 5 - 10 days, then taper to the minimum effective alternate-day dosage.
For adjunctive flea allergy dermatitis: PrednisoLONE 1 mg/kg by mouth once a day for 1 week, the every other day at a minimally effective dose.
Immunosuppressant for auto-immune skin diseases: PrednisoLONE 2.2 mg/kg twice daily until remission; then taper to lowest effective every other day dosage.
Type II (cytotoxic) hypersensitivity: PrednisoLONE 2 mg/kg twice daily. Once in remission, dosage may be reduced to a maintenance level. Other immunosuppressants may be required.
Adjunctive therapy of urticaria, shock, and/or respiratory arrest secondary to contrast media hypersensitivity: PrednisoLONE sodium succinate 10 mg/kg IV
Adjunctive therapy of surface pyodermas: PrednisoLONE 1 mg/kg/day for 5 - 7 days.
For boxer cardiomyopathy: In patients not responding to antiarrhythmic agents: PrednisoLONE 1 mg/kg twice daily for 10 days.
As an appetite stimulant: PrednisoLONE 0.25 - 0.5 mg/kg by mouth every day, every other day, or intermittently as needed
For adjunctive therapy of posterior uveitis: PrednisoLONE 2.2 mg/kg once daily; gradually reduce dose as inflammation is controlled.
For chronic, proliferative, pyogranulomatous laryngitis: PrednisoLONE 1 mg/kg twice daily by mouth; decrease dosage weekly.
For eosinophilic ulcer: PrednisoLONE 2 - 4.4 mg/kg by mouth once a day; for chronic cases use PrednisoLONE 0.5 - 1 mg/kg by mouth every other day
For adjunctive or alternate therapy for hypercalcemia: PrednisoLONE 1 - 1.5 mg/kg by mouth every 12 hours. Has a delayed onset of action and a 4 - 8 day duration of response.
As an anti-inflammatory in the adjunctive treatment of otitis interna: PrediSONE 0.25 mg/kg/day for first 5 - 7 days of treatment.
For adjunctive therapy of myasthenia gravis: PrediSONE 0.5 mg/kg/day by mouth. Increase in 0.5 mg/kg/day increments every 2 - 4 days until total dose of 2 mg/kg/day is attained. After remission is achieved, gradually shift to every other day therapy. Should patient worsen during period when PrediSONE dose is increased, reduce dose and increase the intervals between dosage increases. May take several weeks to see a positive response. After signs are controlled, reduce dosage every 4 weeks until maintenance dose is determined. Cytotoxic drugs may be indicated should symptoms not be controlled or if dosage cannot be reduced
For neoplasia: For specific information regarding protocols, see specialized reference material:
For palliative treatment of brain tumors: PrediSONE 0.5 - 1 mg/kg by mouth once a day or twice

daily for several days then every other day and decrease dosage over the next week or month, dependent on patient's needs
For adjunctive therapy in canine lymphomas: COAP (cyclophosphamide, VinCRIStine, cytosine arabinoside, PredniSONE) protocol: PredniSONE: 50 mg/m2 by mouth every day for one week, then 25 mg/m2 every other day.
COP (no cytosine arabinoside) protocol: PredniSONE 25 mg/m2 by mouth every other day.
CHOP (DOXOrubicin instead of cytosine arabinoside): PredniSONE 25 mg/m2 by mouth every other day
For adjunctive therapy for multiple myeloma: PredniSONE 0.5 mg/kg by mouth once daily. Used with melphalan: 0.1 mg/kg by mouth once daily for 10 days, then 0.05 mg/kg by mouth once daily or cyclophosphamide: 1 mg/kg by mouth once daily (if resistance develops to melphalan)
For macroglobulinemia: PredniSONE 0.5 mg/kg by mouth once daily. Used with chlorambucil: 0.2 mg/kg by mouth once daily for 10 days, then 0.1 mg/kg by mouth once daily or cyclophosphamide: 1 mg/kg by mouth once daily (if resistance develops to chlorambucil)
- Cat
PrednisoLONE is thought to be much more bioavailable in cats as compared to PredniSONE.
Adjunctive therapy for shock: Pred sodium succinate- 5.5 - 11 mg/kg IV, repeat in 1,3,6 or 10 hours.
Immunosuppressive agent: PrednisoLONE: Initially 2 - 4 mg/kg daily in divided doses. Taper to alternate day, low-dose therapy as rapidly as patient allows
For Allergic bronchitis: PrednisoLONE sodium succinate: 1 - 3 mg/kg IV or IM or 50 - 100 mg / cat IV. (do not give via rapid IV infusion). PredniSONE 5 mg by mouth three times daily initially, then rapidly decrease to alternate day use (or discontinue)
For plasmacytic/lymphocytic enteritis and feline plasma cell gingivitis / pharyngitis: PrednisoLONE 1 - 2.2 mg/kg by mouth divided twice daily for 5 - 10 days, then 1.1 mg/kg/day for 5 - 10 days, then taper by reducing steroid dosage by 1/2 every 10 - 14 days until alternate-day dosage is attained or symptoms recur
For eosinophilic ulcer: PrednisoLONE 2 - 4.4 mg/kg by mouth once a day; for chronic cases use PrednisoLONE 0.5 - 1 mg/kg by mouth every other day
For adjunctive therapy of feline heartworm disease: For crisis due to embolization; PrednisoLONE 4.4 mg/kg three times daily with careful IV fluid therapy
For dermatologic conditions: For adjunctive treatment of flea allergy: PrednisoLONE 1 - 2 mg/kg by mouth every 12 hours for 5 days, then gradually taper to alternate-day therapy (usually 1 - 2 mg/kg every other evening.
For linear granulomas: PrednisoLONE 0.5 mg/kg twice daily initially, with taper
As adjunctive therapy for feline neoplasias (lymphosarcoma, acute lymphoid leukemia, mast cell neoplasms): 20 - 50 mg/m2 every 14 - 48 hours by mouth, SQ or IV. (See specialized reference material for more specific information on protocols)
- Birds (small)
As an anti-inflammatory: PrednisoLONE- 0.2 mg/30 gm or dissolve 5 mg tab in 2.5 mL water and give 2 drops by mouth twice daily.

For treatment of shock: PrednisoLONE sodium succinate (10 mg/mL): 0.1 - 0.2 mL/100 grams body weight. Repeat every 15 minutes to effect. In large birds, dosage may be decreased by 1/2
- Rodent
Mice, Rats, Gerbils: 0.5 - 2.2 mg/kg IM or SQ
- Rabbit
Rarely indicated. Use with caution; concurrent gastroprotectant is recommended.
For spinal trauma: 0.25 - 0.5 mg/kg by mouth every 12 hours for 3 days, then once daily for 3 days, then once every other day for 3 doses.
As an anti-inflammatory: 0.5 - 2 mg/kg by mouth
- Reptiles
PrednisoLONE sodium succinate for shock in most species: 5 - 10 mg/kg IV as needed
- Guinea Pig
0.5 - 2.2 mg/kg IM or SQ
- Ferret
As an anti-inflammatory or for insulinoma (postsurgical or nonsurgical cases): 0.5 - 2 mg/kg by mouth or IM (frequency not specified)
- Hamster

0.5 - 2.2 mg/kg IM or SQ

**- Large Animal**

- Cattle

For adjunctive therapy of cerebral edema secondary to polioencephalomalacia: PrednisoLONE 1 - 4 mg/kg intravenously

For adjunctive therapy of aseptic laminitis: PrednisoLONE (assuming sodium succinate salt) 100 - 200 mg IM or IV; continue therapy for 2 - 3 days

For glucocorticoid activity: PrednisoLONE sodium succinate: 0.2 - 1 mg/kg IV or IM

- Horse

PrednisoLONE is thought to be much more bioavailable in horses as compared to PredniSONE.

For adjunctive therapy of COPD: PrednisoLONE: Initially, 600 - 800 mg IM or by mouth in a 450 kg horse. May be possible to decrease dose and go to alternate day dosing. Doses as low as 200 mg every other day may be effective.

For glucocorticoid effects: PrednisoLONE sodium succinate:0.25 - 1 mg/kg IV, PrednisoLONE tablets 0.25 - 1 mg/kg by mouth; PrednisoLONE acetate: 0.25 - 1 mg/kg IM or 10 - 25 mg subconjunctivally.

- Llama

For steroid-responsive pruritic dermatoses secondary to allergic origins: PredniSONE: 0.5 - 1 mg/kg by mouth initially, gradually reduce dosage to lowest effective dose given every other day

- Swine

For glucocorticoid activity: PrednisoLONE sodium succinate: 0.2 - 1 mg/kg IV or IM

***Special Notes:***

None