

## Alopecia X

**Also Known As:** Adrenal sex hormone imbalance, growth hormone responsive dermatosis, coat funk, black skin disease

**Transmission or Cause:** An incompletely understood disorder often associated with abnormal levels of sex hormones (i.e. progesterone, estradiol, testosterone) originating from the adrenal glands. Additionally, dysfunctional hormonal receptors on hair follicles likely play a role.

**Affected Animals:** Most common in young adult dogs of plush-coated arctic breeds such as Pomeranians, Chows, Keeshonds, Samoyeds, Huskies, Malamutes, and miniature Poodles.

**Clinical Signs:** Gradually progressive, symmetrical, not itchy and non-inflammatory hair loss on the trunk, tail, thighs, and neck which spares the head and front legs. Hair loss initially involves the guard hairs, leaving a woolly puppy coat. Exposed skin may become darkened and scaly.

**Diagnosis:** Alopecia X is diagnosed based on clinical signs and blood tests to rule out other causes of hair loss such as hypothyroidism, Cushing's disease, cancer, or elevated sex hormones from testicular or ovarian sources. Skin biopsy reveals non-specific changes consistent with hormonal disease such as thinning of the skin and atrophy of hair follicles and glands. Measurement of adrenal sex hormones can be performed (pre- and post- ACTH stimulation test), but can be difficult to interpret.

**Treatment:** Alopecia X is a cosmetic disorder which often does not warrant aggressive treatment. Neutering of intact dogs is recommended and often causes temporary or permanent hair regrowth due to altering hormone levels. Medical treatment options which can cause hair regrowth in some animals include: melatonin, trilostane, and lysodren. Less commonly used drugs include: growth hormone, methyltestosterone, prednisone, and lupron. Many of these drugs can have adverse side effects and should be used under careful supervision of a veterinarian.

**Prognosis:** The prognosis for hair growth is unpredictable, but this is a purely cosmetic disorder which does not affect the dog's quality of life.