

Melatonin Treatment Web Page Links

Disclaimer (bottom of page)

As with any supplement or medication, it's important to consult with a veterinarian before giving melatonin to a dog, as the dosage and potential side effects can vary depending on the dog's health and individual needs.

Summary Info

High-Dose Melatonin Therapy can be used in dogs to help regulate sleep and provide other potential benefits, including:

Rejuvenating Anti-Aging Benefits:

- > Reducing inflammation: Melatonin may have anti-inflammatory effects, which could be beneficial for dogs with conditions such as arthritis or inflammatory bowel disease.
- > Studies show that Melatonin can ease the symptoms of dogs with Cushing's disease because it blocks the uptake of excess cortisol.
- > May help prevent age related bone loss
- > Medical Disorders Related:

- Reduce Cushing's symptoms
- Increase immune system
- Reduce geriatric symptoms
- Cushing's Disease symptoms
- Helps Old dog Dementia= Canine Cognitive Dysfunction Syndrome
- Anti-inflammatory + Anti-arthritis + Anti-allergy
- Supports bone density

Hair-Grower Benefits:

- > Stimulates hair follicular development and normal hair growth cycle.
- > Improves hair growth and thickness in hair follicle dysplasia and hair follicle arrest disorders.
- > Reduce thin hair due to age-related alopecia.
- > Melatonin may help manage hair loss in dogs, particularly in breeds prone to hair loss or alopecia.
- > Medical Disorders Related:

- Increase hair growth
- Follicular arrest syndrome
- Follicular dysplasia
- Seasonal recurrent flank alopecia
- Alopecia X in Pomeranians = Black Skin Disease
- Sex Hormone Alopecia
- Sex hormone imbalance
- Post Clipping Alopecia
- Telogen/Anagen Defluxion or Effluvium
- Reduces Shedding

Reduces Cushing's Alopecia Symptoms

Calming Sleep, Brain and Nerve Benefits:

- >>Reducing anxiety: Melatonin can have a calming effect on dogs and help reduce anxiety, particularly in stressful situations such as shelter dogs, traveling or fireworks.
- > Melatonin can help regulate sleep patterns in dogs with sleep disorders, such as insomnia or circadian rhythm disorders.
- >Melatonin for Seizure Management. The potential use and role of Melatonin in seizure occurrence and management is a relatively new research area.
- > Melatonin can help with anesthesia induction and recovery.
- > Medical Disorders Related:
 - Separation Anxiety
 - Barrier Frustration
 - OCD licking and chewing
 - Canine Cognitive Dysfunction Anxiety
 - Shelter Dog Anxiety
 - Noise Phobia (Thunder/Fireworks)
 - Sleep disorders
 - Seizures

Immune Support Benefits:

- > Reduces the Allergy immune reaction and may help restore the Epidermal Skin Barrier
- >Supporting the immune system: Like in humans, melatonin has antioxidant properties that may help boost the immune system and protect against various diseases in dogs.
- > Reducing inflammation: Melatonin may have anti-inflammatory effects, which could be beneficial for dogs with conditions such as arthritis or inflammatory bowel disease.
- > Studies show that Melatonin can ease the symptoms of dogs with Cushing's disease because it blocks the uptake of excess cortisol.
- > Medical Disorders Related:
 - Allergy symptom reduction
 - Arthritis symptom reduction
 - Inflammatory Bowel Disorders
 - Cushing's Syndrome

Cancer Benefits:

- > Melatonin may help in the reduction of chemotherapy side-effects.
- > Studies identify several potential cancer protective benefits of melatonin.

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Medical Data Studies and Links:

High-Dose Melatonin Treatment Links:

How the High-Dose was studied and determined to be safe and effective:

1.0 to 1.3 mg/kg of body weight PO, every 12 hours

[Effect of oral melatonin administration on sex hormone, prolactin, and thyroid hormone concentrations in adult dogs](#)

<https://pubmed.ncbi.nlm.nih.gov/10530323/>

Melatonin was administered initially at 3-6 mg, every 12 h (to Pomeranians) ... 62% of dogs had partial to complete hair re-growth.

[Adrenal steroid hormone concentrations in dogs with hair cycle arrest \(Alopecia X\) before and during treatment with melatonin and mitotane](#)

<https://pubmed.ncbi.nlm.nih.gov/15500479/>

... doses of melatonin ranging from 10 to 80 mg per kg of body weight were given.

[Melatonin administration to dogs](#)

<https://pubmed.ncbi.nlm.nih.gov/7193238/>

Melatonin. Often used as a first treatment, especially if alopecia is present, since it is cheap, has few side effects and is available in health food stores or via nutrient suppliers on the internet.

Typically, a dose of 3 mg is given q12hrs (BID) for dogs <30 lbs; a dose of 6 mg is given q12hrs (BID) for dogs > 30 lbs. See Plumb's Handbook. Regular melatonin is usually used rather than rapid release or extended release products. Melatonin has anti-gonadotropic activity, and it inhibits aromatase enzyme in tissues (decreases androstenedione and testosterone conversion into estradiol) and 21-hydroxylase enzyme (lowers cortisol level).

[Treatment Option Considerations for Hyperadrenocorticism in Dogs - Clinical Endocrinology Service/College of Veterinary Medicine](#)

<https://vetmed.tennessee.edu/wp-content/uploads/sites/4/Treatment-Considerations.pdf>

General Data Links:

Small Animal Dermatology References:

[Muller and Kirk's Small Animal Dermatology - 9781416000280](#)

<https://www.elsevier.com/books/muller-and-kirks-small-animal-dermatology/miller/978-1-4160-0028-0>

[Small Animal Dermatology - 9780323376518](#)

<https://www.us.elsevierhealth.com/small-animal-dermatology-9780323376518.html>

PubMed Research Results Summary

[Oxidative Stress and Aging as Risk Factors for Alzheimer's Disease and Parkinson's Disease: The Role of the Antioxidant Melatonin](https://pubmed.ncbi.nlm.nih.gov/36769340/)

<https://pubmed.ncbi.nlm.nih.gov/36769340/>

[Effect of oral melatonin administration on sex hormone, prolactin, and thyroid hormone concentrations in adult dogs](https://pubmed.ncbi.nlm.nih.gov/10530323/)

<https://pubmed.ncbi.nlm.nih.gov/10530323/>

[Changes in sexual hormones, serotonin, and cortisol concentrations following oral administration of melatonin in castrated and intact dogs - ScienceDirect](https://www.sciencedirect.com/science/article/abs/pii/S1558787817302575)

<https://www.sciencedirect.com/science/article/abs/pii/S1558787817302575>

[https://pubmed.ncbi.nlm.nih.gov/?term="Melatonin/therapeutic](https://pubmed.ncbi.nlm.nih.gov/?term=)

Veterinary Medical Use Summary

<https://vcahospitals.com/know-your-pet/melatonin>

[Melatonin for Dogs: Benefits, Safety, Dosage and More! - Veterinarians.org](https://www.veterinarians.org/melatonin-for-dogs/)

<https://www.veterinarians.org/melatonin-for-dogs/>

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Rejuvenating Anti-Aging Benefits:

Melatonin for Dogs: Benefits, Safety, Dosage and More!

<https://www.veterinarians.org/melatonin-for-dogs/>

[Melatonin and healthy aging](https://pubmed.ncbi.nlm.nih.gov/33706965/)

<https://pubmed.ncbi.nlm.nih.gov/33706965/>

Melatonin and healthy aging. Cardinali DP.

Vitam Horm. 2021;115:67-88. doi: 10.1016/bs.vh.2020.12.004. Epub 2021 Feb 5.

PMID: 33706965

Melatonin and healthy aging - melatonin exerts a significant cytoprotective action by buffering free radicals and reversing inflammation via down regulation of proinflammatory cytokines, suppression of low degree inflammation and prevention of insulin resistance. Because of these properties melatonin has been advocated to be a potential therapeutic tool in COVID 19 pandemic. Melatonin administration to aged animals counteracts a significant number of senescence-related changes. In humans, melatonin is effective both as a chronobiotic and a cytoprotective agent to maintain a healthy aging. Circulating melatonin levels are consistently reduced in the metabolic syndrome, ischemic and non-ischemic cardiovascular diseases and neurodegenerative disorders like the Alzheimer's and Parkinson's diseases.

[Protective effects of melatonin against physical injuries to testicular tissue: A systematic review and meta-analysis of animal models](https://pubmed.ncbi.nlm.nih.gov/36798664/)

<https://pubmed.ncbi.nlm.nih.gov/36798664/>

Protective effects of melatonin against physical injuries to testicular tissue: A systematic review and meta-analysis of animal models.

Dehdari Ebrahimi N, Shojaei-Zarghani S, Taherifard E, Dastghaib S, Parsa S, Mohammadi N, Sabet Sarvestani F, Moayedfard Z, Hosseini N, Safarpour H, Sadeghi A, Azarpira N, Safarpour AR. Front Endocrinol (Lausanne). 2023 Jan 31;14:1123999. doi: 10.3389/fendo.2023.1123999. eCollection 2023. PMID: 36798664

[Protective effects of melatonin against the toxic effects of environmental pollutants and heavy metals on testicular tissue: A systematic review and meta-analysis of animal studies](https://pubmed.ncbi.nlm.nih.gov/36793277/)

<https://pubmed.ncbi.nlm.nih.gov/36793277/>

Protective effects of melatonin against the toxic effects of environmental pollutants and heavy metals on testicular tissue: A systematic review and meta-analysis of animal studies.

Dehdari Ebrahimi N, Parsa S, Nozari F, Shahlaee MA, Maktabi A, Sayadi M, Sadeghi A, Azarpira N. Front Endocrinol (Lausanne). 2023 Jan 30;14:1119553. doi: 10.3389/fendo.2023.1119553. eCollection 2023. PMID: 36793277

[Oxidative Stress and Aging as Risk Factors for Alzheimer's Disease and Parkinson's Disease: The Role of the Antioxidant Melatonin](https://pubmed.ncbi.nlm.nih.gov/36769340/)

<https://pubmed.ncbi.nlm.nih.gov/36769340/>

Oxidative Stress and Aging as Risk Factors for Alzheimer's Disease and Parkinson's Disease: The Role of the Antioxidant Melatonin.

Tchekalarova J, Tzoneva R.

Int J Mol Sci. 2023 Feb 3;24(3):3022. doi: 10.3390/ijms24033022. PMID: 36769340

Hair-Grower Benefits:

Melatonin for Dogs: Benefits, Safety, Dosage and More!

<https://www.veterinarians.org/melatonin-for-dogs/>

[Melatonin in Dermatologic Allergic Diseases and Other Skin Conditions: Current Trends and Reports](https://pubmed.ncbi.nlm.nih.gov/36835450/)

<https://pubmed.ncbi.nlm.nih.gov/36835450/>

Melatonin in Dermatologic Allergic Diseases and Other Skin Conditions: Current Trends and Reports.

Bešlić I, Lugović-Mihić L, Vrtarić A, Bešlić A, Škrinjar I, Hanžek M, Crnković D, Artuković M. Int J Mol Sci. 2023 Feb 17;24(4):4039. doi: 10.3390/ijms24044039.

PMID: 36835450

Melatonin has cytoprotective, immunomodulatory, and anti-apoptotic effects. Melatonin is also one of the most powerful natural antioxidants, directly acting on free radicals and the intracellular antioxidant enzyme system. Furthermore, it participates in antitumor activity, hypopigmentation processes in hyperpigmentary disorders, anti-inflammatory, and immunomodulating activity in inflammatory dermatoses, maintaining the integrity of the epidermal barrier and thermoregulation of the body. Due predominantly to its positive influence on sleep, melatonin can be used in the treatment of sleep disturbances for those with chronic allergic diseases accompanied by intensive itching (such as atopic dermatitis and chronic spontaneous urticaria). According to the literature data, there are also many proven uses for melatonin in photoprotection and skin aging (due to melatonin's antioxidant effects and

role in preventing damage due to DNA repair mechanisms), hyperpigmentary disorders (e.g., melasma) and scalp diseases (such as androgenic alopecia and telogen effluvium).

Calming Sleep, Brain and Nerve Benefits:

[Melatonin for Dogs: Benefits, Safety, Dosage and More! - Veterinarians.org](https://www.veterinarians.org/melatonin-for-dogs/)

<https://www.veterinarians.org/melatonin-for-dogs/>

[Serum Melatonin Values in Normal Dogs and Dogs with Seizures](https://pubmed.ncbi.nlm.nih.gov/30653360/)

<https://pubmed.ncbi.nlm.nih.gov/30653360/>

[Preoperative calming effect of melatonin and its influence on propofol dose for anesthesia induction in healthy dogs](https://pubmed.ncbi.nlm.nih.gov/31351807/)

<https://pubmed.ncbi.nlm.nih.gov/31351807/>

Immune Support Benefits:

Melatonin for Dogs: Benefits, Safety, Dosage and More!

<https://www.veterinarians.org/melatonin-for-dogs/>

[Preliminary findings on the effect of melatonin on the clinical outcome of cataract surgery in dogs](https://pubmed.ncbi.nlm.nih.gov/25959258/)

<https://pubmed.ncbi.nlm.nih.gov/25959258/>

Anti-inflammatory benefits after eye surgery

Preliminary findings on the effect of melatonin on the clinical outcome of cataract surgery in dogs

Bone Healing:

[Topical application of melatonin and growth hormone accelerates bone healing around dental implants in dogs](https://pubmed.ncbi.nlm.nih.gov/19793331/)

<https://pubmed.ncbi.nlm.nih.gov/19793331/>

Topical application of melatonin and growth hormone accelerates bone healing around dental implants in dogs. Muñoz F, López-Peña M, Miño N, Gómez-Moreno G, Guardia J, Cutando A.

Clin Implant Dent Relat Res. 2012 Apr;14(2):226-35. doi: 10.1111/j.1708-8208.2009.00242.x. Epub 2009

Sep 29. PMID: 19793331

[Daytime administration of melatonin has better protective effects on bone loss in ovariectomized rats](https://pubmed.ncbi.nlm.nih.gov/36949499/)

<https://pubmed.ncbi.nlm.nih.gov/36949499/>

Daytime administration of melatonin has better protective effects on bone loss in ovariectomized rats.

Li TL, Liu HD, Ren MX, Zhou Z, Jiang WK, Yang M.

J Orthop Surg Res. 2023 Mar 23;18(1):234. doi: 10.1186/s13018-023-03695-8.

PMID: 36949499

Cancer Benefits:

[Melatonin for the prevention and treatment of cancer](https://pubmed.ncbi.nlm.nih.gov/28415828/)

<https://pubmed.ncbi.nlm.nih.gov/28415828/>

Melatonin for the prevention and treatment of cancer.

Li Y, Li S, Zhou Y, Meng X, Zhang JJ, Xu DP, Li HB.
Oncotarget. 2017 Jun 13;8(24):39896-39921. doi: 10.18632/oncotarget.16379.
PMID: 28415828 Free PMC article. Review.

Melatonin could also be utilized as adjuvant of cancer therapies, through reinforcing the therapeutic effects and reducing the side effects of chemotherapies or radiation. Melatonin could be an excellent candidate for the prevention and treatment of several ...

[Neurobiological effects of melatonin as related to cancer
https://pubmed.ncbi.nlm.nih.gov/18090123/](https://pubmed.ncbi.nlm.nih.gov/18090123/)

[Protective effects of melatonin against physical injuries to testicular tissue: A systematic review and meta-analysis of animal models
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