

<p>21</p> <h2 style="text-align: center;">Hypothyroidism</h2> <p style="text-align: center;"><i>(underactive thyroid function)</i></p> <p style="text-align: center;">Commonly seen in pure breed Canines – behavior disorder as well as physical.</p>	12 Pages
<p>Natural thyroid balancing – borderline to very low function. Thyroid hormones are important for growth, maturation of organ systems, and regulation of metabolism.</p> <p>EQUINES - <u>Hyperthyroidism</u> is commonly seen in pure breed Canines – behavior disorder as well as physical. It is extremely rare in horses. <u>Hypothyroidism</u> is poorly understood in the horse. While hyperthyroidism is rare, the prevalence of true hypothyroidism in adult horses is unknown and its existence is somewhat controversial. * See page 9</p>	
<p>All formulas are 100% natural, plant-based solutions for all Species</p>	

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the natural, plant-based Hypothyroidism Support (under active) - Set of 4

1. Hypo 21-1 formula 50ml & 2. Calm Eze 21-2 formula 30ml

~ **Clear Liquid** : One dose is (pat into fur/skin 3 to 4 drops on body) ie back of shoulder blade. Repeat as suggested on bottle. E.g it is not the amount of drops or pills given at the one time, but more important as to frequency of repeat applying and time in between each application. Less time between repeats gives faster results if needed. ~ **White tiny Pills**: 1 -2 pill and add to meals or orally for larger pets to touch saliva in pouch of mouth, no need to swallow pill. Or put one pill in a oral syringe fill with filtered water and success (bang on wrist) at least 50 times to activate water. Then syringe 2ml or so in side of mouth or on skin. **Example**: the natural single remedy called **Calcarea carb** is a remedy for treating depression, nervousness and fatigue especially in patients with sluggish dispositions. All of these symptoms point to hypothyroidism, therefore, this calcium salt can be used to correct the symptoms of low production of thyroid hormones.

3. The natural, plant-based concentrate herb - **HerbaHypo 21-3 Mix 100ml**

Dosing (*brown liquid*) **See Bottle label for dosage in meals.** *Toy dog - add suggested amount of drop into a egg cup, add 1/4 teaspoon of slippery elm powder, then add some hot water about 20ml. let cool the add 1ml to 2ml in meals.

Supplementing with magnesium (**ReMag**) and six minerals complex (**ReMyte**)

4. Magnesium & Minerals 100ml Magnesium liquid

You have the nine minerals necessary for the creation, conversion, activation and transport of thyroid hormones: These include **iodine, selenium, zinc, molybdenum, boron, copper, chromium, manganese and magnesium. Magnesium**

We like the Magnesium liquid (ReMag) drops as it is preservative free and easy absorption. **with Minerals Liquid (ReMyte)** Six minerals in **ReMyte** that support thyroid function include: **iodine, selenium, magnesium, manganese, molybdenum and zinc.**

Mag & Mineral SUPPLEMENT:

Felines, Toy dog, or other small animal: add 5 drops in every meal.

Small to med canine: add 10 drops to every meal.

Med to large canines. add one teaspoon to every meal.

~ Hypothyroid is really low adrenals which really means low Magnesium (mineral)

We like the **Magnesium** Ion liquid drops (ReMag Magnesium solution) as it is preservative free and easy absorption.

And for **Mineral** supplement from the same company (ReMyte Minerals).

Instructions on bottles that we have supplied is only a 30ml bottle to get you started. You can then buy a larger bottle 240ml bottles from the supplier on-line **from Dr Carolyn Dean.** For all family members to take as well.

See Page 11 – 12 Over dosing on chemical thyroid drugs symptoms

OTHER Supplements to add to meals are:

3. **Selenium** - hand feed whole raw brazil nuts, or crush and add 2-3 to meals.

4. **Kelp powder** – a sprinkle for toy dog up to a teaspoon for small to med and 1 teaspoons for large dogs.... can both reverse thyroid problems, along with Omega3 (see HAMPL DOG Diet guide), Probiotics and B complex (a good sprinkle of bee pollen) in daily meals

5. **B complex** using **Bee Pollen grains** (organic) can buy the on-line which is a natural form of B complex for stress. Say 2 teaspoons twice a day in meals for a med to large dog.. or a good pinch for smaller pets.

6. **Probiotics (a strong one)**

There are many many different strengths and types of Probiotics. For example here are some of the ones we like below (as the whole family can take it also). A few choices here for the strong probiotic will act on the low grade bacterial infection to correct her gut flora.

Ultimate FLORA Probiotic 150 billion (Renew Life)

* this is one of the very best probiotics and often comes up for pets when we have a clinical test done.

Or **Physician's CHOICE Probiotics 60 Billion CFU** - 10 Diverse Strains Plus Organic Prebiotic, Designed for Overall Digestive Health and Supports Occasional Constipation, Diarrhea, Gas & Bloating

DOSING " PROBIOTIC POWDER (or powder from capsule)

Adding to goats milk or coconut milk - the second best option is food.

KITTENS, INFANT PUPPY, RABBITS other infant animals

~ A good pinch in milk drinks to share for cats and kittens or pups twice or three times a day.

FELINE, TOY DOG, other small animals

~ mix 1/4 teaspoon or 1/4 cap of powder from the PROBIOTIC POWDER in meals OR milk drinks.

SMALL TO LARGE CANINE or ANIMALS:

~ Mix 1/2 cap of Probiotics POWDER.

Min of 2 months that it takes to restore a healthy strong gut flora. Especially if ever taken chemical antibiotics or have a autoimmune condition or malnutrition ed pet, rescue pet etc.

They are expensive, but they work the best I have ever tried. I have tried many and they just didn't make a difference. Pets and whole family can take these. It takes 2 months to fully restore gut flora.

[Read about Magnesium "HELP SHEET" on product 284](#) We are all needing Magnesium in our cells. E.g if you had a RBC Mag blood test it will show you are low. Option range should be 7. Serum Magnesium blood test are useless tests and request that it is a Red Blood Cell magnesium test.

Thyroid Insufficiency.

Minerals play a huge part in the rehabilitation of two major hormone systems in the body. The three major hormone systems in the body: adrenals, thyroid and sex hormones, I refer to as a three-sided stool. When one of the legs of the stool is shortened, it affects the other two. This can be seen in blood testing; when cortisol levels go up, thyroid hormone levels go down. There is an ongoing debate among natural medicine practitioners about what comes first, adrenal fatigue or thyroid insufficiency and what do you treat first? But why not look at what the main causes of both conditions are, mineral deficiency, which means you can treat the two conditions simultaneously. The standard treatment for thyroid, even for natural medicine practitioners, is to give thyroid replacement therapy. It may be thyroid medication, but its still treating with hormones instead of treating the reason the thyroid became weakened in the first place. In my experience, most low thyroid conditions are caused by mineral deficiency.

This condition is from a imbalance of the **autonomic nervous system**.

Consisting of (2) two metabolic types **Parasympathetic** and **Sympathetic**.

Parasympathetic type of metabolic function causes a underactive thyroid and adrenal function. Symptoms seen in humans would be fatigue, depression, low blood sugar levels and many others. The clinical symptoms of this disease are multi-systemic i.e. it's a condition that affects many organ systems of the body and relates to a decreased metabolic rate.

Pet guardians often overlook early symptoms or assume the changes are a normal part of the aging process. Obvious weight loss or gains are usually the problem that takes the dog to their veterinarian.

Changes in behaviour can also be thyroid related.

1. Parasympathetic Metabolic Type.

Hypothyroidism (under active - seen in canines) causes a wide variety of symptoms, but is often suspected in dogs that have trouble with.... weight gain or obesity and suffer from hair loss and skin problems.

2. Sympathetic Metabolic Type

Hyperthyroidism (over active thyroid - seen in felines) show signs which include.... **rapid heart rate , muscle weakness, goiter (enlargement of the thyroid gland), irregular heart rhythm, hyper-excitability , increased appetite , increased thirst, increased urination, heat intolerance, and an unkempt hair coat.**

FURTHER INFORMATION

Hypo and hyperthyroidism are often overlooked in many physical and behavioural conditions in cats and dogs.

Dr.Jean Dodds DVM reports that many behavioural disorders in dogs are directly related to the thyroid. Correcting the thyroid imbalance by providing a natural diet, food supplements, and **the natural, plant-based formulas** can make a huge difference, as does omitting vaccinations which have been know to cause of all thyroid problems.

In general ALL CATS & DOGS over the age of 6 yrs should have a thyroid test done or if not showing acute issues of behaviour or stress use the below homeopathic suggestions. Avoid vaccines from now on.

CLINICAL SIGNS OF CANINE (less common FELINE HYPOTHYROIDISM)

Alterations in Cellular Metabolism

weakness / stiffness / laryngeal paralysis / facial paralysis / tragic expression / knuckling or dragging feet / muscle wasting / megaesophagus / head tilt / drooping eyelids

Neuromuscular Problems

seizures / mental dullness / exercise intolerance / neurologic signs - polyneuropathy / lethargy / weight gain / cold intolerance / mood swings - hyperexcitability / stunted growth / chronic infections

Dermatologic Diseases

dry, scaly skin and dandruff / coarse, dull coat / bilateral symmetrical hair loss / puppy coat / hyperpigmentation / seborrhea or greasy skin / pyoderma or skin infections / myxedema / chronic offensive skin odor

Reproductive Disorders

infertility of either sex / testicular atrophy / hypospermia aspermia / prolonged interestrus interval / absence of heat cycles / silent heats / pseudopregnancy / weak, dying or stillborn pups

Cardiac Abnormalities

slow heart rate (bradycardia) / cardiac arrhythmias / cardiomyopathys

Gastrointestinal Disorders

constipation / diarrhea / vomiting

Hematological Disorders

bleeding / bone marrow failure / low red blood cells / low white blood cells / low platelets

Ocular Diseases

corneal lipid deposits / corneal ulceration / uveitis Keratococonjunctivitis / sicca or dry eye / infections of eyelid glands (Meibomian gland)

Other Associated Disorders

IgA deficiency / loss of smell (dysosmia) / loss of taste / glycosuria / chronic active hepatitis / other endocrinopathies adrenal, pancreatic, parathyroid

Thyroid Imbalances

Several years back at a AHVMA conference, Dr. Jean Dodds represented Canine Autoimmune Thyroiditis and Behavioral Changes associated with Thyroid Dysfunction in Dog. Hypothyroid is the most common disorder in dogs. Her collected data from January 1995 to January 1999 of 1060 canine case of auto immune thyroiditis, **and it shows 96% are pure breed dogs.**

The average age was 4.5 years.

The **12 breeds most affected** were the *Golden Retriever, Shetland Sheepdog, American Cocker Spaniel, Boxer, Doberman Pinscher, Labrador Retriever, German Shepherd, Akita, Irish Setter, English Setter, Old English Sheepdog and Collie.*

It should also be noted that many holistic vets believe thyroid problems are caused by vaccinations – this is seen in high cases of hypothyroid in dogs and hyperthyroid in cats.

Dr. Dodds showed a set of slides of thyroid gland in different stage of thyroid problem. When you see an abnormality in T3, T4 tests, the condition is often in progressed stage. And in this stage, the animals would have to stay on the medication for rest of their life. We need to recognize the signs of thyroid imbalance while it's in the early stage in order to bring it back to normal.

Dogs with thyroid dysfunction show "aberrant behaviour "problems.

You may notice your dog has **unprovoked aggression towards people/animals, sudden onset of a seizure disorder in adulthood, disorientation, moodiness, erratic temperament, periods of hyperactivity, hypo attentiveness, depression, fearfulness and phobias, anxiety, submissiveness, passivity, compulsiveness and irritability.**

The specialized function, such as scent and attention will go first. So if you are training your dog for obedience or tracking, you may notice the poor performance in your dog. It will also show up in skin and coat conditions such as dry, crusty, scaly skin.

The end result can be a dog with a very sparse coat and a dull, almost hardened grey skin that will have a obnoxious odour.

It is very important to recognize the signs and treat your dog with safe natural formulas in the early stage if possible, as Hypothyroidism can lead to the autoimmune disease thyroiditis. Autoimmune Thyroiditis is a heritable form of canine thyroid disease. Some of the breed clubs for the 12 breeds mentioned above are taking steps to stop this disease by checking for the gene and telling people not to breed dogs who have it. Regular T3 and T4 tests over-diagnose Hypothyroidism and under-diagnose Hyperthyroidism. Also, they are often influenced by diet and/or drugs, and fail to detect early compensatory disease and thyroiditis.

Dr Dodds recommends testing for T4, T3, Free T4, Free T3, T3 autoantibody, and T4 autoantibody. Endogenous Thyroid Stimulating Hormone (TSH) and (TgAA) are also useful. Bitches should be tested 12wks after the heat to get an accurate result. If you vaccinate your dog, wait 40 days before doing tests, but it is not recommended to vaccinate your dog at all. The normal ranges for these thyroid tests are different for each age group. For example, the normal range for FT4 for puppy is 1.75, adult is 1.4, and senior is 1.25. Also, there are differences with different sizes of the dogs.

Note Regarding Thyroid testing (USA residence)

Thyroid function in adult horses

By Babette Breuhaus, DVM, PhD, DACVIM

Thyroid hormones are important for growth, maturation of organ systems, and regulation of metabolism. The thyroid gland manufactures and secretes both thyroxine (T4) and tri-iodothyronine (T3), although the main source of T3 in the body is from conversion of T4 to T3 in peripheral tissues. T3 is more active metabolically than T4. Thyroid hormones circulate both bound to proteins and "free" (ie unbound), with the free fractions being the active fractions.

Thyroid hormone secretion from the thyroid gland is regulated by thyrotropin or thyroid stimulating hormone (TSH) from the anterior pituitary, which in turn is regulated by thyrotropin releasing hormone (TRH) from the median eminence of the hypothalamus.

Thyroid dysfunction in adult horses

Both hypothyroidism and hyperthyroidism have been described in the horse, but true thyroid gland dysfunction is probably much rarer in horses than in some other species, including humans, dogs and cats. A large number of adult horses that are administered thyroid hormones probably have normal thyroid gland function. Abnormalities of thyroid function that have been described in the horse include thyroid gland neoplasia, hyperthyroidism, and hypothyroidism. In addition, certain drugs and a variety of physiologic and/or pathologic conditions can alter serum thyroid hormone concentrations.

Thyroid gland neoplasia

Thyroid gland neoplasia is not uncommon in horses, particularly in older horses. Histologically, adenomas, carcinomas, adenocarcinomas, and C-cell tumors have been described. Most thyroid gland tumors in the horse are relatively benign, in that they do not tend to metastasize and circulating thyroid hormone concentrations usually remain in the normal range. Many thyroid tumors are found as incidental findings at necropsy examination.

However, some tumors enlarge to the point that they interfere with pharyngeal and/or laryngeal function. These tumors can be removed surgically and the horse managed with thyroid hormone replacement therapy. There are also scattered case reports in the literature of horses that were found to be hypothyroid or hyperthyroid due to a thyroid tumor.

Hyperthyroidism

Hyperthyroidism is extremely rare in horses.

There have only been a few cases of hyperthyroidism in adult horses properly documented in the literature, and these have been in association with thyroid hormone producing tumors. Circulating thyroid hormone concentrations are also sometimes temporarily increased in horses exposed to excess iodine, such as in a topical blister.

Clinical signs of hyperthyroidism in horses..... *include weight loss, tachycardia, tachypnea, hyperactive behavior, ravenous appetite, and cachexia.*

Diagnosis is confirmed by measurement of increased circulating concentrations of free fractions of thyroid hormones.

Hypothyroidism

Hypothyroidism is poorly understood in the horse.

While hyperthyroidism is rare, the prevalence of true hypothyroidism in adult horses is unknown and its existence is somewhat controversial. Autoimmune thyroiditis, while somewhat common in humans and dogs, has only been described in one report from eastern Europe in the horse, in which histologic lesions compatible with Hashimoto thyroiditis-like disease were found in roughly 20% of 622 horses at a slaughterhouse.

Although thyroid hormone supplementation is commonly advocated for horses suffering from problems such as *laminitis, obesity, recurrent myositis, anhidrosis and poor fertility*, proper documentation of hypothyroidism in such cases is often non-existent. Anecdotal reports of beneficial effects of thyroid hormone supplementation in these horses are also largely unsubstantiated.

Thyroid function and disease can be treated very successfully, non toxic, remedies.

DRUGS that are prescribed from your Vet

- **THYRO-TABS CANINE (levothyroxine sodium tablets)**
- **ThyroKare™ (levothyroxine sodium tablets)**

Both chemical drugs containing levothyroxine sodium as the active ingredient. The tablets are available in different strengths. Your veterinarian will carefully calculate the dose depending on your dog's weight. THYRO-TABS CANINE are given by mouth every 12 or 24 hours and ThyroKare™ tablets are given every 12 hours, as prescribed by your veterinarian.

The amount of drug absorbed by a dog's body depends on whether it is given with or without food. To minimize variation in absorption, you should consistently give the drug to your dog either with or without food.

You will typically see improvement in your dog's activity level within a few weeks of starting thyroid hormone replacement therapy. However, hair regrowth takes longer, typically at least 4 months. Skin and ear problems also may take longer to clear up and require additional medications.

Do dogs on thyroid hormone replacement therapy need to be monitored?

Yes. Your veterinarian will monitor your dog's thyroid hormone levels after starting thyroid hormone replacement therapy to make sure the dose is adequate. If the dose is too low, your dog will not be adequately treated and signs will continue. If the dose is too high, your dog may become restless, nervous, drink and urinate more than normal, and lose weight despite having an increased appetite

After starting thyroid hormone replacement therapy, your dog's thyroid hormone levels should be initially checked every 4 to 8 weeks. Based on these results, your veterinarian may adjust the dose until your dog is adequately maintained. After that, thyroid hormone levels should be monitored periodically in case your dog's requirement for thyroid hormone replacement therapy changes over time.

Dogs with underlying heart disease that are diagnosed with hypothyroidism should be closely monitored by their veterinarians after first starting thyroid hormone replacement therapy. The dose of heart medication or levothyroxine sodium may need to be adjusted depending on the dog's response to treatment.

What are some of the side effects of levothyroxine sodium?

Reported side effects of levothyroxine sodium include:

- Not eating;
- Itchiness;
- Skin problems, such as red, inflamed skin;
- Decreased activity level;
- Vomiting;
- Diarrhea;
- Increased drinking and urination; and
- Increased activity level.

FDA encourages you to call your veterinarian if you think your dog is having a side effect from levothyroxine sodium.

Overdose of the drug IS quite common, which can cause the opposite of hypothyroidism, which is hyperthyroidism — a condition where there's too much of the thyroxine hormone in the blood.

If you see any of the following side effects in your dog, then it could mean they are suffering from an overdose and need their dosage adjusted:

- Increased appetite
- Increased thirst and urination
- Decreased tolerance to heat
- Excitability and other personality changes
- Dizziness
- Fainting