

Glossary of Medical Terms

This glossary is intended as a brief guide. To help you understand some of the medical terms used in the list of diseases encountered in the Pug. It is recommended that you discuss these disorders with your veterinarian and pursue some further reading. Some common signs of these disorders are mentioned as well as some screening tests.

Atopy is the predisposition to allergic reactions. This can include acute reactions such as hives following a bee sting, or more chronic reaction of hot spots or itching as well as hair loss.

Cleft Palate is a development defect present at birth where the roof of the mouth fails to form properly. There is a gap in the roof of the mouth along the midline, visible at birth

Collapsing Larynx or laryngeal paralysis is the result of weakening of the muscles that control the larynx. It is manifested either as the falling into the airway of the arytenoids cartilages that form the larynx, or paralysis of one or both vocal chords. The end result is partial obstruction of the airway. Laryngeal paralysis can be congenital or acquired. The acquired form is often to hypothyroidism and may respond to thyroid supplementation. Frequent signs of laryngeal paralysis are a change in the dog's bark, and/or very noisy respiration. Laryngeal paralysis is best diagnosed by observation of the larynx under anesthesia.

Collapsing and Hypoplastic (small, narrow tracheas)

Are usually congenital in Pugs. Affected dogs usually suffer from a chronic 'honking' cough or dyspnoea (difficulty breathing) during exercise. These conditions are usually diagnosed on radiograph.

Demodectic Mange is characterised by either focal or generalized reddened areas with hair loss in response to the presence of demodex mites. These mites are normal inhabitants of the hair follicles. Normal dogs have few mites. Dogs that develop demodectic mange have an increased number of mites and hyper-respond to their presence. Some young dogs will develop a small patch of demodex during stress that may spontaneously resolve and go undetected. Dogs with generalised demodectic mange require treatment and may have an inherited defect in their immune system. Demodectic mange is confirmed by examining skin scrapings or biopsies.

Distichia are aberrant eyelashes that grow on the inside of the eyelids and rub on the cornea (the clear outer surface of the eye). They cause irritation that can lead to Pigmentary Keratitis. Frequent signs of Distichia include chronically squinted or weepy eyes. Distichia can be observed with a bright light and some magnification at the eyelid margins.

Dystocia is difficulty whelping puppies

Elongated Soft Palates are the most common airway obstruction in Pugs. The soft palate is an extension of the hard palate, which forms the roof of the mouth. The soft palate is supposed to act as a mobile flap to prevent food and water entering the nasal passages during swallowing. An elongated

soft palate hangs in front of the airway or even falls into the larynx during inhalation. Affected pugs will breathe rather noisily when excited. Pugs with elongated soft palates sound like someone slurping the last of their lemonade through a straw. They frequently gag in an attempt to clear their airway, bringing up a foamy saliva while eating, drinking or excited. Dogs with elongated soft palates may have 'reverse sneeze' attacks. An elongated soft palate is almost impossible to check positively in a conscious pug. It can sometimes be visualised on a radiograph, but is best diagnosed under anesthesia.

Entropion is a conformational defect where one or both eyelids roll inward and rub on the surface of the eye. In pugs it is usually the medial (inside) edge of the lower eyelid that rolls inward. Pugs with entropion may have squinted or weepy eyes and can develop pigmentary keratitis from the irritation.

Everted Laryngeal Saccules are the second most common airway obstruction in pugs. They are usually a secondary elongated soft palate or Stenotic Nares. They result from swelling of the tissue lining the larynx, known as the laryngeal ventricles. As the tissue swells it is pulled into and obstructs the airway. Everted laryngeal saccules are diagnosed under anaesthesia.

Heart Disease is a broad category of conditions both congenital and acquired that affect how efficiently the heart is able to pump blood. Signs of heart disease can include exercise intolerance, poor growth, weight loss, chronic cough, a pot bellied appearance and even fainting episodes. Many heart problems can be detected on physical examination.

A complete work up for heart disease can include radiographs, ECG, blood work and even ultrasound.

Hemivertebra is a congenital defect where part of the vertebra fails to form properly resulting in a misshapen vertebra. Hemivertebra are often wedge shaped and result in an unstable portion of the spine. The intervertebral discs adjacent to hemivertebrae are very prone to rupture. Spines in which there are several hemivertebrae may have scoliosis (twisting of the spine) that can directly pinch the spinal cord. Dogs with hemivertebrae are prone to disc disease in later life or early paralysis in severe cases of scoliosis. Hemivertebrae are diagnosed radiographically when dogs show signs of spinal cord injury.

Hernias are the protrusion of abdominal contents or organs through a weakened or torn muscle wall. The most common hernias observed in pugs are umbilical and inguinal hernias. Umbilical hernias are soft masses seen at the umbilical area that recede into the abdomen when gently pressed upon. Inguinal hernias are located in the groin area. Diaphragmatic and hiatal hernias are when a weakening or tear in the diaphragm allow abdominal organs into the chest cavity resulting in difficulty in breathing.

Hip Dysplasia is a malformation of the hip joint resulting in a sloppy and arthritic joint. Mildly dysplastic pugs are frequently sound movers. Severely dysplastic pugs may exhibit some lameness. Severely dysplastic hips can easily be luxated (slipped out of joint). Server dysplasia can lead to rotation of the femur that results in luxating patellas. Hip dysplasia is

diagnosed by a combination of radiographs, gait evaluation and hip manipulation. This disorder is not to be confused with Legg Calve Perthes Disease.

Hypothyroidism is a diseased production of thyroid hormone. Hyperthyroid dogs are frequently overweight, have poor hair coats, irregular heat cycles and poor fertility. Hypothyroidism is diagnosed by measuring thyroid hormone levels in the blood.

Keratoconjunctivitis Sicca (KCS) is low tear production in the eye, commonly called 'dry eye'. Dogs with KCS tend to have large amounts of crusty matter accumulate on their eyelids, dry noses and sometimes pigmentary keratitis. KCS is diagnosed by measuring tear production with Schinner tear test strips.

Lagophthalmos is the failure to completely close the eyelids when blinking or sleeping. This results in a dry irritated band of cornea running across the middle of the eye and can lead to pigmentary keratitis. Lagophthalmos is diagnosed by watching the dog blink, or by the pattern of pigment across the eye.

Laryngeal Polyps are small benign masses that grow on irritated vocal cords. They can be a sequelae to an elongated soft palate or another airway obstruction. They are best observed under anaesthesia.

Legg—Calve— Perthes Disease Is a disorder in young small breed dogs in which part of the head of the femur dies, resulting in an acutely painful hip. In mild cases of Legg Perthes, or in cases where both hips are involved, there may little lameness detected. Radiographs taken early in the onset of the disease is diagnostic. Radiographs taken much later may

only show evidence of hip dysplasia, the result of the body's bone remodelling to compensate for the defective femoral head.

Liver Disease is a broad category of conditions affecting the liver. Signs of liver disease can include poor growth, weight loss, vomiting, diarrhea, jaundice, a pot bellied appearance and even seizures. A complete work up for liver problems can include blood tests, radiographs, ultrasound and biopsies.

Luxating Patellas are loose kneecaps. In a dog with mildly luxating patellas, the patella or kneecap, rides correctly on the groove of the stifle joint most of the time. In a dog with severely luxating patellas the kneecap has slipped out of the groove most of the time. When a dog luxates its patella, it may carry the leg briefly, or stop and stretch the leg backwards in an attempt to reseat the patella back in its normal groove. Luxating patellas can be diagnosed by watching the dog gait, palpation and radiographs.

Pigmentary Keratitis is the development of a brown film (pigment) over the clear cornea of the eye. It can be readily detected with a bright light and a little practice. Pigmentary keratitis can be the body's response to toughen the cornea in the face of irritation such as entropion, distichia, injury or lack of tears. In mild cases the pigment is laid down on the cornea only at the location of the injury or irritation. Mild pigmentary keratitis may resolve when the irritation is corrected. Severe pigmentary keratitis is when the eye hyper-responds to an irritation and proceeds to pigment an area larger than has been directly irritated or injured. Severe pigmentary keratitis

can proceed to blindness and improves very little when the cause of irritation is removed.

Portosystemic Shunt is a single or multiple circulatory bypass around the liver. In normal individuals all blood leaving the intestines is filtered through the liver for processing of potential toxins. In individuals with a portosystemic shunt(s) some of the blood goes into general circulation without being processed by the liver.

Signs of portosystemic shunt(s) include poor growth, vomiting, diarrhea, crystals in the urine and seizures. Diagnosis of a portosystemic shunt can include blood tests, radiographs and special dye studies

Progressive Retinal Atrophy (PRA) is a condition where retinas in the eye degenerate, leading to blindness. Signs include progressively poor vision or sudden blindness. PRA is readily detected by examination of the retinas with an ophthalmoscope.

Pug Dog Encephalitis (PDE) is a fatal seizure disorder exclusive to the pug. The exact cause has yet to be found. Dogs with PDE can exhibit seizures, periodic blindness, progressive paralysis, coma and sudden death. The disease can be rapidly or slowly progressive. Some dogs even have temporary remissions. Dogs with PDE usually fail to respond to anti-convulsant therapy and progress to coma and death or elective euthanasia when symptoms are uncontrollable. To date, the only completely accurate diagnosis is postmortem examination of the brain.

Renal Disease is any disorder affecting the kidney function. Dogs with chronic renal disease may drink a lot of water, produce large amounts of urine, have weight loss, vomiting and ulcers. Dogs in acute renal failure may stop drinking and produce little to no urine. A complete workup for renal disease can include blood tests, urinalysis and kidney biopsies.

Seizure Disorders are any disease that can produce seizures. This includes portosystemic shunts, Pug Dog Encephalitis, hydrocephalus and idiopathic epilepsy. (Please note that pugs tend to have lower 'seizure threshold' than most dogs). The administration of certain common drugs such as Ace Promazine or the brief oxygen deprivation can induce seizures in normal pugs. Seizures can vary from a blank stare to a behavioral quirk, as a muscular tic to a complete convulsion. A complete workup for seizures can include blood tests, a cerebral spinal fluid tap and CT or MRU scans.

Wry Mouth is a twisted or offset lower jaw. The tongue is sometimes seen protruding from one side of the mouth.

*Reprinted from the Veterinary Medical Terms used in the Puget Sound Pug Dog Club Code of Ethics

IN CONCLUSION:

Now you know a little more about the Pug and have decided that the Pug is the breed for you, or you want more information, contact the breed club

So You Have Decided on a Pug

Now let's tell you about the club.
Pug Club of Victoria Inc.
PO Box 103 Murtoa, 3390
Phone: (03) 5385 2228

The Pug Club of Victoria was established in 1954 with the aim of convening exhibitions of Pugs and establishing and promoting this wonderful breed in Victoria.

The club is a registered affiliate of the Victorian Canine Association Inc., which in turn is a member of the Australian National Kennel Council.

Anyone with an interest in Pugs may join the club. We have members throughout Australia and overseas. In addition to staging Championship and Open shows, the club conducts member's competitions, often combined with a barbecue, fun day or similar at which members and their Pugs can gather for an inexpensive fun family day. If you are interested in exhibiting or you just want some tips on care, these days are ideal.

Club members experienced in conformation showing and obedience are usually present.

The club has various items of 'Pugnalia' available (key rings, pug crystals etc.).

The club publishes a quarterly 15 - 20 page newsletter to inform and entertain members about pugs.

