ENGLISH TOY TERRIER BREED HEALTH INFORMATION

The ETT as a breed is generally very healthy and has few known heritable diseases. Other than regular worming, teeth cleaning, grooming, nail clipping and inoculations the ETT generally requires little medical intervention.

However, there are some conditions to be aware of.

PUTNAM PATELLA LUXATION

Patella luxation in dogs is a condition where the patella or “knee-cap” can move from its normal central position at the front of the knee or “stifle joint” to one side or the other.
In most dog breeds the most frequent direction of abnormal movement or “subluxation” is towards the midline of the dog- “medial patellar luxation”. In some cases the subluxation can be away from the midline of the dog and is called “lateral patellar luxation”.

Patella Luxation testing & scoring is carried out by a veterinary surgeon who is familiar with the Putnam Patellar Luxation Grading System. The examination is normally performed during an orthopaedic examination without sedation. The vet will use the Putnam (1968) testing and scoring method to grade dogs from Grade 0- no luxation present- normal, to increasing severity from Grade 1-4.

The following description should be used for guidance only.

- **Grade 0:** Normal
- **Grade 1:** the patella can be manually luxated with the stifle in full extension, but when pressure is released without manipulation of the limb the patella regains its original position in the trochlea. Spontaneous luxation of the patella during normal joint motion rarely occurs. Typically stifle and hock in a straight line with no deviation of the hock.
- **Grade 2:** the patella can be completely luxated, but manipulation of the hind limb (flexion of the stifle) causes the patella to regain its original position in the trochlear. On physical examination, the patella luxates easily, especially when the foot is rotated.
- **Grade 3:** the patella is found (at least once) spontaneously luxated with the animal in a standing position or it is permanently luxated but can be repositioned manually or by manipulating the limb. Very shallow or flattened trochlear.
- **Grade 4:** the patella is permanently luxated and cannot be repositioned. May scarcely be able to walk or may move in a crouched position with both limbs partially flexed, and/or they may carry the affected limb. Trochlea is shallow, absent or even convex.

VON WILLEBRAND DISEASE

von Willebrand Disease is the most common inherited blood clotting disorder in dogs. It's the result of an insufficient amount of von Willebrand factor (vWF), which is a plasma protein that helps blood to clot. vWD can result in excessive, serious bleeding from even a minor skin wound.

There are three classifications of this disease, Types I, II, and III. These are based on the concentration and nature of plasma vWF.

- Type I vWD is characterized by abnormally low concentrations of structurally normal vWF, and tends to be a milder and more variable form.
- Type II vWD is characterized by structurally abnormal vWF, which impedes function and results in severe bleeding in affected animals.
- Type III vWD is found in animals that have essentially no plasma vWF.

Five genetic mutations have been identified that cause vWD in canines. Direct DNA tests have been developed for all five of these mutations that allow unambiguous delineation of the genetic status of the animal. All five may be classified as recessively inherited resulting in clear, carrier, or affected status. While carriers do exhibit a reduction in the amount of plasma vWF, it is not enough to make them symptomatic. It should be noted that affected status in the case of these tests means the animal carries two copies of the mutant allele, not necessarily that the disease is manifest. In the case of the severe Type II and III diseases any "affected" animal will almost certainly experience a severe bleeding incident. In the case of the milder and more variable Type I disease, "affected" animals are obviously at risk, but may or may not have a severe bleeding incident.

JUVENILE DILATED CARDIOMYOPATHY (JDCM)

JDCM is known to occur in English Toy Terriers. It is a genetic disease of the heart which results in sudden cardiac death at a young age, with dogs reported to have passed as early as 10 weeks of age and as late as 1 year of age. Affected dogs usually appear healthy with no signs of heart disease present before the sudden passing. The only external abnormality is that affected male puppies may have unilateral or bilateral cryptorchidism (undescended testicles on one or both sides). For a number of the puppies, their sudden passing occurred within a day of general anesthesia/surgery or exercise. Necropsy (post-mortem examination) may show mild enlargement and dilation of the heart. Microscopic changes include degeneration and scarring of heart tissue and varying degrees of inflammation. Death is presumed to be the result of a sudden fatal arrhythmia (abnormal heart rhythm).

Research performed at the University of Minnesota, in collaboration with University of Pennsylvania and the University of Prince Edward Island, has discovered that JDCM in the ETT/ Toy Manchester Terriers is caused by an autosomal recessive mutation in a cardiac potassium channel. To date, they have tested a number of dogs with JDCM, and all had two copies of the mutation. The disease is fully penetrant, meaning that all dogs with two copies of the mutation develop JDCM. A carrier will have a single copy of the mutation and it is estimated that up 15% of the global ETT/TMT population are carriers of the mutation. Carriers do not develop the disease but can produce affected puppies if bred to another carrier. However, this does not mean that carriers need to be taken out of the breeding pool, as that could rapidly reduce breed diversity. As long as carriers are only bred to clear dogs, there is no risk of producing affected puppies.