*Hypoglycemia*

*Hypoglycemia, the medical term for low blood sugar, is a condition in which there is a drastic sudden drop in the level of blood sugar in the puppy. It is most often seen in toy breed puppies and usually not seen in puppies over twelve weeks of age. It is most likely caused by the uneven spurts in growth of the internal organs of the puppy, especially the pancreas. The brain will receive incorrect signals from the pancreas and not send out a correct signal for the release of a proper amount of sugar in the bloodstream. Signs of an attack are weakness, confusion, wobbly gait, frothing or drooling from the mouth - sometimes even a seizure and drain of blood from the head. A check of the gums will show them to be pale, almost a grayish white in color, rather than a healthy bright pink. The puppy can go into shock and if not cared for properly and promptly, may even die. If your puppy develops any of these symptoms, give nutrical immediately and head for the vet. If it is hypoglycemia, you should start to see improvement within about 10 min and you can follow up with a protein based meal such as chicken baby food. Normally the risk of hypoglycemia passes after the age of about 12 weeks old.*

*Causes:*

*For the young pup prone to this condition, even a brief period of fasting in a toy breed puppy can trigger a hypoglycemic "attack", any significant stress, such as a routine trip to the vet's, that occurs in the absence of a recent meal, can cause the blood sugar to drop to dangerously low levels. Low environmental temperatures, infections, vaccinations, strenuous exercise, and inadequate nutrition increase the risk even further. While it is not recommended to take your puppy to show him/her off to friends and family, we do realize that people will do it anyway. If you MUST cart your new puppy around with you, make yourself up a "doggie bag". Carry nutrical with you and a baggy of their normal dry food along with an emergency jar of chicken baby food. "Visiting" can be very stressful and overwhelming for young puppies and stress can cause the blood sugar to lower unexpectedly.*

*Treatment:*

*Feeding recommendations for puppies at risk for hypoglycemia include: frequent (4-5 times a day) feedings of high-carbohydrate, high-protein and/or high fat foods. You can contact us for a formula recipe if needed. Feeding soft moist foods may help to prevent a hypoglycemia attack due to the high sugar content. It is always wise to have Nutrical on hand with small puppies. A small amount placed under the tongue should restore blood sugar levels enough to be able to feed a normal protein meal. Pedialite or a little Gatorade is good too in case of an attack once they can drink on their own. These have electrolytes which is helpful with ailing pups. Corn syrup (white or clear) can be used also by placing a small amount under the tongue and on the gums. Make sure to follow up with a normal protein meal such as chicken baby food or canned dog food. Once these steps are followed, puppy should his/her normal playful self. Watch the puppy closely for recurrence of symptoms. For pups that have had recurrent or prolonged signs, monitoring the urine for ketones with a "dipstick" made for diabetics is helpful, since a return to "ketone negative status" signals a return to normalcy. If these measures don't correct the problem, a trip to the vet is recommended.*

*Open Fontanel*

*Open Fontanel is seen in several toy dog breeds. The fontanel is the area at the top of the skull where the bone plates merge. When babies (human and dog) are born the boney plates of the skull are usually partly soft and separated. Typically this area closes but sometimes the boney plates never completely fuse, leaving a small hole in the top of the skull that has a soft mushy feel when you touch it. The affected pup can still live a long, full and active life.*

*Precautions the owner should take include protecting the puppy from being hit on the head, preventing situations where the puppy might fall and not allowing the puppy to jump from furniture, beds, etc. These are precautions that should be taken with ANY puppy of ANY size anyway, so just be aware that the top of the head is un protected and of course, they should always be supervised with small children, open fontanel or not.*

*It is fairly common for the very tiny t-cups (2.5 to 4 pounds) to have an open fontanel considerably longer than the larger Imperial Shih Tzu (5 to 9 pounds) and of course the Standard size Shih Tzu (over 9 pounds). It is very rare though that they do not close completely by the age of 1 year old. Open fontanels are not life threatening!!!*

*Open fontanels are actually quite necessary as young puppies just as the soft spot on a baby. They enable the head to mold so that they will fit through the birth canal and they enable the brain to grow within the skull without being squished and putting pressure on the brain.*

*Umbilical Hernia/Delayed Closure*

*Umbilical Hernias or Delayed Closures are somewhat common in the Shih Tzu Breed in general no matter what size they may be. These are right at the belly button area and it appears as a tiny bulge, feels squishy, and you can push it back in. When you do push it in, you will feel a tiny hole in the abdominal wall. These can be genetic or can be caused from trauma to the umbilical area during the birthing process. A weak area (hole) in the abdominal wall at the umbilicus allows a small amount of fat to pass into a pocket under the skin. This creates a small bulge over the belly button. Very small umbilical hernias typically close with maturity. They are not a health issue, and do not affect the puppies quality of life. It is recommended that they be repaired at the same time that you spay/neuter your Imperial Shih Tzu Puppy at about 6 months old depending on the size of your puppy. Anesthesia is always a risk so make sure your vet is experienced with T-Cups if that is what you have.*