



EPI IN INDIA

The following is an EPI brochure for those living in India. Thank you to Abhaya, Devika and Samir for working with Epi4Dogs to put this brochure together to help those in India.

Treating EPI (Exocrine Pancreatic Insufficiency) requires effectively managing the following 4 aspects of EPI:

- * Pancreatin Enzymes (for EPI)
- * B12 (for low or insufficient B12 levels)
- * Diet (starting with a low fiber diet)
- * Antibiotics (if the SID /small intestinal dysbiosis) is out of control

Unfortunately, what is available in the USA is often not available, or under different brand names or potency in other countries. So we have put together this brochure to help those in India know what some of the resources are available to them so that they can treat their EPI dog (or cat).

TLI test to confirm EPI:

Cessna Lifeline Veterinary Hospital

Address: #148, HBCS, Amar Jyothi Layout, KGA Road, Off Intermediate Ring Road, Domlur, Bengaluru, Karnataka 560071, India

Phone: +91 80 3016 1324

as of April 2016, the estimated cost is 2000 Indian Rupees (which is about \$30 in USA dollars)

There is also a vet, Dr. Srikanth : **Address:** No.38/27, 1st A Cross, 5th Block, 3rd Phase, Near Kamakya Theatre, Banashankari 3rd Stage, Bengaluru, Karnataka 560085, India that understands and has a good reputations working with EPI dogs.

Phone:+91 98440 57919

ENZYMES:

All these enzymes are easily available in stores and online without a prescription.

1. CREON (10,000 or 12,000 and 25,000) Creon gives the best results! (available anywhere)
2. Panlipase (Pancreatin Capsules) by Sun Pharma
3. Pancreoflat (<https://www.medindia.net/drug-price/pancreatin/pankreoflat-170plus80.htm>)
4. Enzar Forte

CREON Administration:

Since CREON is a human drug designed to work on a digestive tract pH of 4, whereas the dog's digestive tract pH is approximately 1 ... this is why when using CREON, although very effective, it may take a little trial and effort.

First.... the dose. We suggest starting with a CREON 10,000 (or 12,000) per meal (you can add more if this amount doesn't work)

Next... the technique.... the best way is to just try the following techniques to see which works best ... and that is determined by the poo quality:

1. Give the CREON 10,000 (or 12,000) capsule whole or sprinkle the contents and feed immediately or wait for 10 minutes before feeding (some dogs respond better with either method). Watch the poo for a few days and try to assess. Please note: if you are going to sprinkle the contents ensure that the dog eats the entire meal so that all of the Creon is ingested. If in doubt, give the capsule whole before trying the sprinkling method.
2. if the above does not produce optimal poo results, then you can try 2 x CREON 10,000 (or 12,000) capsules. Watch the poo for a few days and try to assess if this helped, or if it is just right or not working at all....
3. if the above is not working at all.... then try giving a CREON 10,000 (or 12,000) capsule about 5 minutes prior to a meal... again, watch the poo and try to assess if this appears to work better than the above or not. If it does appear to work better.... but still isn't perfect, then try giving the CREON 10,000 (or 12,000) about 10 minutes prior to a meal and again assess the poo over the next few days.

These are some techniques... the trick in giving CREON will be up to you to try and figure out TWO THINGS!

1. what is the best "timing" method of giving CREON.. whole in capsules or in some cases whether opened and served immediately or 5, 10 or 15 minutes prior to a meal.
2. and then the right "dose"... whether one CREON 10,000 (or 12,000) is enough or if you need two CREON 10,000 (or 12,000)... or if your dog is going to need approximately CREON 25,000 .

PANLIPASE Administration:

This product is 150mg but is enteric coated. This is the same potency as CREON 10. Use the same techniques as mentioned above for CREON.

Here is the pharmaceutical information:

Pharmacology: Pharmacodynamics: Panlipase Cap contains porcine pancreatin formulated as enteric-coated (acid-resistant) minimicrospheres within gelatine capsules. The capsules dissolve rapidly in the stomach releasing plenty of minimicrospheres, a multi-dose principle which is designed to achieve good mixing with the chyme, emptying from the stomach together with the chyme and after release, good distribution of enzymes within the chyme.

When the minimicrospheres reach the small intestine the coating rapidly disintegrates (at pH >5.5) to release enzymes with lipolytic, amylolytic and proteolytic activity to ensure the digestion of fats, starches and proteins. The products of pancreatic digestion are then either absorbed directly, or following further hydrolysis by intestinal enzymes.

PANKREOFLAT Administration:

This product, Pankreoflat 170 mg, is not very potent. To treat EPI, you will need to try different doses to find what best treats your dog's EPI.

Pankreoflat 170 mg

22,825 USP units of amylase

6,500 USP units of lipase

Pankreoflat 170 mg: 22,825 USP units of amylase; 6,500 USP units of lipase; 25,000 USP units of protease

The following is what is used in the USA for potency of each enzyme, For best results with Pankreoflat, you "might" need to start with 8 tablets to equal a minimum of 56,000 USP units of Lipase. You may need more, or less. But this is a suggested starting point for 1 cup of food.

33,600 to 71,400 USP of **Lipase** (needed to digest fats and oils)

280,000 to 495,000 USP of **Protease** (needed to digest proteins)

280,000 to 495,000 USP of **Amylase** needed to digest carbohydrates)

B12:

Is easily available without a prescription

1. Rejeunex
2. Neurorite (Methylcobalamin)Tablets
3. Nurokind (Mecobalamin) Injection
4. Trinerve Injection

Diet (commercial):

Commercial foods (websites that deliver grain-free food)

1. <https://headsuptails.com/>
2. <https://www.barksnlicks.com/>

Diet (homemade):

Homemade foods:

One sample EPI meal: Boiled eggs, root vegetables like carrots, beetroots, lauki (bottle gourd), curd, potatoes (however, some dogs don't do well on potatoes, if this happens skip the potatoes). Moong daal, etc. Make sure everything is cooked and mashed so that it is easy to digest. Once a dog gets stable on this (poos start looking more normal).... then try adding a protein. Try one type at a time, like chicken, fish, etc. (Always give enzymes with every meal)

Another sample EPI meal: Boiled chicken, sweet potato, pumpkin, slight beans and carrot mixed with yogurt, in the morning breakfast and lunch and in night the same recipe and instead of yogurt, any probiotic powder can be given. (Always give enzymes with every meal)

Antibiotics:

Tylosin Tartrate, Flagyl (Metronidazole), Ofloxacin, Ornidazole are all available without a prescription. However, please always try to use Tylosin Tartrate first as sometimes the others do not work well. If you have difficulty accessing Tylosin Tartrate, the following two products available in India are:

TROX SOLUBLE Powder Composition Tylosin Tartrate IP (a Virbac product)

<https://in.virbac.com/home/poultry/products/antibiotics/tox-powder>

Please note that since TROX (Tylosin Tartrate (is 50% the strength of TYLAN (Tylosin Tartrate) that we use in the USA.... so when using the Tylan (Tylosin Tartrate) dosing chart at the top of this page <https://epi4dogs.com/antibiotics/> please double the dosage for the doses recommended by the dogs's weight. (Thank You Anuj, one of our Epi4Dogs medical student member for properly calculating the dosage of TROX, available in India!)

SOLUTYL by Venky's (<http://venkys.com>)

Slippery Elm powder: Can be ordered from Amazon at: <https://www.amazon.in/>

Slippery Elm is a mucilage and a fiber that is very well tolerated by most EPI dogs. Sometimes we are able to use Slippery Elm powder to help with a SID flare-up instead of resorting to antibiotics. Well worth having slippery elm on hand.

Probiotics:

Vivaldis Secure is a good probiotic. Just mix in yoghurt, or some other food and serve.

Supplements:

Multivitamins and omega 3/ omega 6 fatty acid are very important to give an EPI dog, whether giving home made food or commercial food. EPI dogs are depleted especially in fatty acid vitamins and many other vitamins and minerals. It is also good to give coconut oil if your EPI dog can tolerate coconut oil. Some people alternate fish oil one day and coconut oil the next day.

If you need more assistance, please feel free to contact one of our Epi4Dogs Volunteer Reps in India and they will help you as best that they can.

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