

## Healthy Cats Fed d/d — Small BIPS

## Healthy Dogs No Food — Large BIPS

Figure 9a.

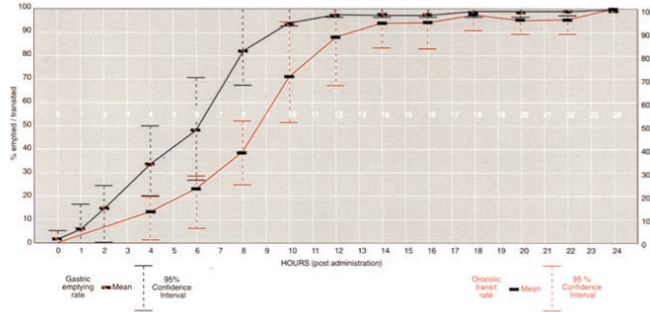
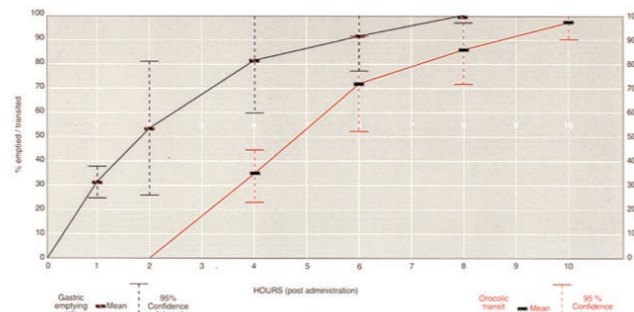


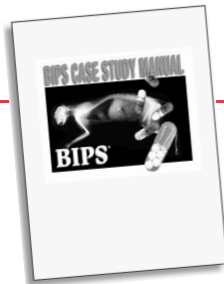
Figure 6b.



Transit Rate Charts highlight the research conducted at Massey University in New Zealand. The studies document gastric rate and orocolic transit times in healthy animals. Used in conjunction with BIPS, this series of charts provides a benchmark to compare your patient's transit time with known healthy patients for determining the most appropriate diagnosis and/or when to take the x-ray.



# Definitive Diagnosis



**FREE CASE STUDY** For a free copy of our Case Study Manual, which provides results from extensive university-based research about BIPS, please go to: [www.medid.com](http://www.medid.com)

Just for the record...Seeing is Believing with MED I.D.



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## MED I.D. X-Ray I.D. System for Permanent, Easy Patient Identification.



With our Med I.D. X-Ray Identification System, patient information is written on the label tape and then placed over a density filter.

Both are attached to the outside of your film cassette. X-rays passing through the label and density filter transfer patient and practice information instantly, permanently to the film in a clear, high contrast image. It's an effective, easy-to-use method of reducing the risk of x-ray mix-up or patient misidentification.





### What are BIPS? What diagnostic purpose do they serve?

BIPS (barium impregnated polyethylene spheres) are small plastic spheres of two sizes embedded with barium. Combined with radiography, they are a useful diagnostic tool to rule out blockages of the gut and to detect motility problems in the stomach and intestines. BIPS are administered in food (or in capsules by mouth) and avoid the problems commonly experienced when administering liquid barium. Unlike barium, BIPS spheres behave similarly to food in the gut. By comparing the gut transit time of the small BIPS in your patient with the average gut transit time in a healthy animal, motility disorders can be diagnosed.

### Under what circumstances would I use BIPS?

Acute gastrointestinal complaints. In cases with acute onset of anorexia, vomiting and/or abdominal discomfort, BIPS are useful for ruling out physical obstructions of the pylorus or bowel.

Chronic gastrointestinal complaints. With chronic vomiting or diarrhea, BIPS will help to detect delayed gastric emptying, gastric dumping, partial bowel obstructions, and intestinal motility disorders. Better sensitivity for detecting these disorders is obtained if BIPS studies are performed with patients that are fed rather than fasted. Because the food type fed markedly affects gastric emptying rate, Hill's Prescription Diet d/d must be used in order to make comparisons with the normal values.

Animals suspected of a partial obstruction. Administering BIPS in a high fiber diet is more sensitive than administration on an empty stomach for diagnosing partial obstructions of the intestinal tract with a luminal diameter of 5mm or more. Fiber accumulates orad to the partial obstruction, arresting passage of the markers. The result: delayed transit and persistent bunching of markers in the abnormal intestinal segment (stagnant loop sign). Carefully examining the bowel area containing the static markers may reveal an intestinal segment dilated by ingesta.

A blockage of the bowel is highly likely if delayed gut transit is associated with a bunching of the BIPS in the small intestine (in two views). A blockage is highly unlikely if abdominal radiographs demonstrate the large BIPS in the colon.

### When do I shoot my first x-ray?

Because BIPS is an interpretative product, the answer depends on the patient's condition and what you suspect the problem may be. The BIPS booklet and transit rate charts will provide a more complete explanation.

To rule in or rule out a physical obstruction...wait until the large BIPS have had enough time to pass through to the colon (typically 6-24 hours). Please refer to the transit rate charts in the BIPS booklet to compare your patient's transit time with a known healthy patient to best determine when to take the x-ray. In some cases, BIPS can be administered and the patient sent home to return the next day for an x-ray. If the large BIPS have reached the colon, then a blockage can be ruled out. If the large BIPS have not reached the colon, and there appears to be a persistent bunching of the large BIPS in the small intestine, that is highly suggestive of a physical obstruction of the small bowel.

To diagnose for motility disorders...wait until the small BIPS have had enough time to pass part way through the digestive tract (typically 6-16 hours). Please refer to the transit rate charts in the BIPS booklet to compare your patient's transit time with a known healthy patient to best determine when to take the x-ray. BIPS travel at the same rate as food, not liquid. This allows you to accurately measure transit time, thus determining possible motility malfunctions. For example, one possibility is that delayed passage of the BIPS, associated with a wide scattering of the BIPS throughout the stomach and small intestine, is usually due to depressed gastrointestinal motility. However, this does not rule out the possibility of a physical obstruction of the bowel.

### Does the pet's weight and size determine the BIPS dose amount?

No, the dosage is the same for large and small pets. For the study to be effective, each patient must receive 10 large (5mm) and 30 small (1.5mm) spheres...by administering capsules or opening the capsules and sprinkling the BIPS on food. The recommended number of large and small spheres is inserted in a single gelatin capsule (1" long x 3/8" diameter), which is the preferred option. If an animal isn't able to swallow the single, larger capsule, the same number of spheres (10 large, 30 small) can be given in four smaller capsules, which is the recommended dosage if the small capsules are being used.

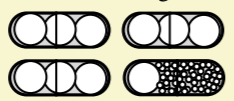
### Aren't BIPS too expensive when compared to a liquid procedure?

No, BIPS are actually much less expensive. When making comparisons, please consider the total procedure cost. Using BIPS, many times you'll need only one x-ray to obtain an accurate diagnosis. Give the animal one capsule, wait the desired amount of time, and then shoot an x-ray. Compare this with a liquid procedure...the time needed to shoot multiple x-rays, the personnel involved, the interruption of a busy practice, and the clean up before and after use.

The primary function of the large BIPS (5mm) is the detection of gastrointestinal (GI) tract obstructions. The small BIPS (1.5mm) mimic the passage of food, and their transit through the GI tract provides an accurate estimate of the gastric emptying rate and intestinal transit time of food.

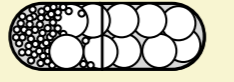
The **Small Cap Option** consists of 4 small gelatin capsules which are primarily formatted for administration to cats and small dogs.

**Small Cap Option** contains  
30 x 1.5mm BIPS and  
10 x 5mm BIPS.



The **Large Cap Option** enables the same number of BIPS as in the Small Cap Option to be formatted as a single capsule for administration to large dogs or broken open and mixed with fibre diet.

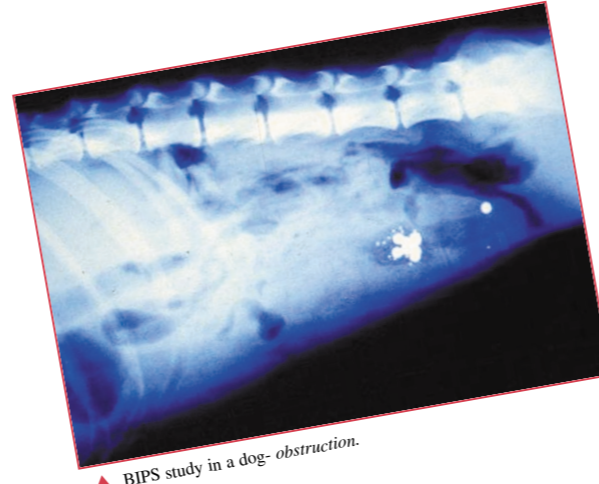
**Large Cap Option** contains  
30 x 1.5mm BIPS and  
10 x 5mm BIPS.



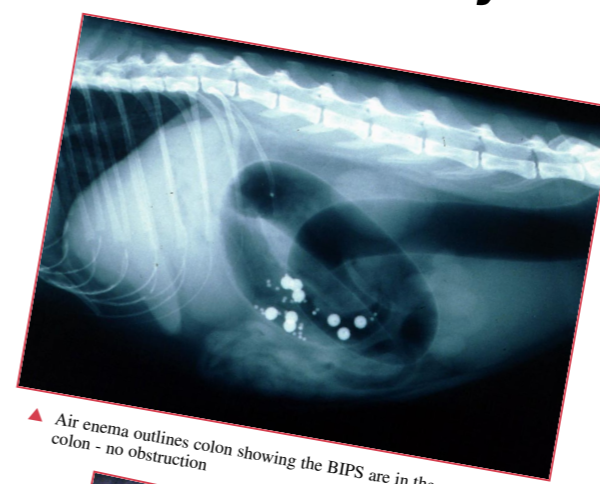
✓ For an accurate in-clinic diagnosis of gastrointestinal obstructions & motility disorders in cats and dogs.

✓ Reduces the need for exploratory surgery.

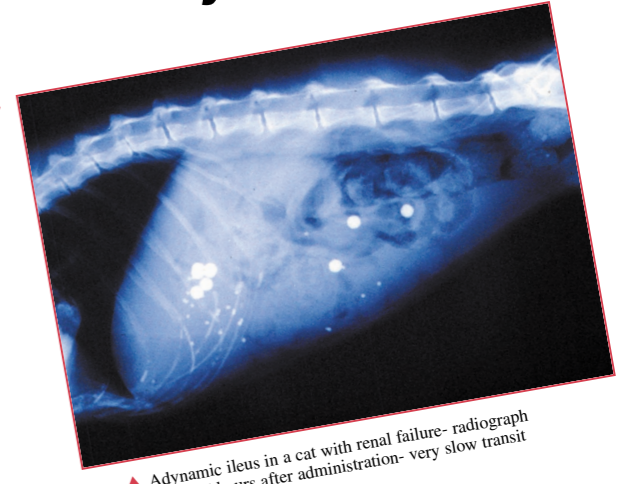
✓ BIPS are administered easily in food or by mouth.



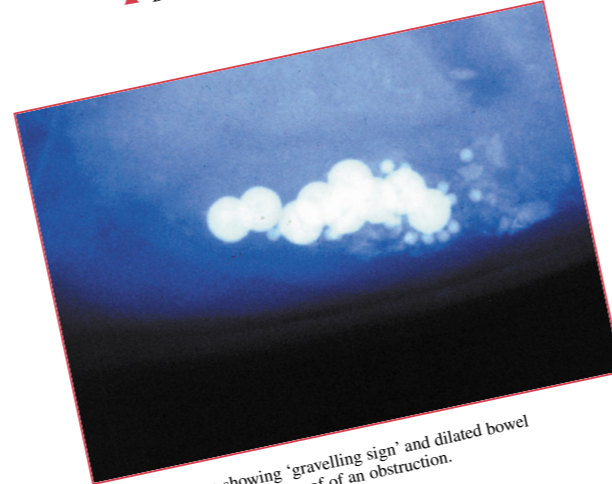
▲ BIPS study in a dog- obstruction.



▲ Air enema outlines colon showing the BIPS are in the colon - no obstruction



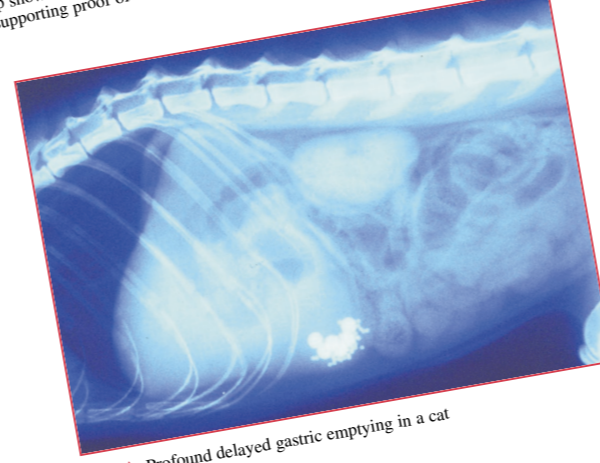
▲ Adynamic ileus in a cat with renal failure- radiograph taken 36 hours after administration- very slow transit but no bunching



▲ Close up showing 'gravelling sign' and dilated bowel loops supporting proof of an obstruction.



▲ Barium study in a vomiting dog



▲ Profound delayed gastric emptying in a cat



**BIPS...The safe, economical, practical diagnostic procedure, individually packaged to meet the needs of concerned veterinarian's world wide!**

QUESTIONS