BREATH TEST
(H2 Hydrogen and CH4 Methane)

Hydrogen and/or Methane gas in the body are produced from intestinal bacteria. Bacteria, normally in the large intestine, produce hydrogen or methane through fermentation of carbohydrates. Substrates containing these carbohydrates, like Lactulose, is given orally to test for small intestinal bacterial presence. Some of the hydrogen or methane produced from the bacterial fermentation causes bloating, abdominal discomfort or diarrhea. The gases are absorbed by the intestinal mucosa and enter the vasculature and transported to the lungs. The gases are then exhaled through normal breathing. These are collected in a bag for immediate analysis.

In Small Intestinal Bacterial Overgrowth (SIBO), bacteria exist in the small intestine. Lactulose, when used as the challenge dose, is poorly absorbed in the gastrointestinal tract making it the perfect substrate to test for bacterial overgrowth throughout the length of the small bowel (21 feet).

NOTE: If lactose or fructose is given as substrate, bacteria compete with the natural digestive process before it is absorbed, and may produce an early rise in breath hydrogen as well. Dedicated intolerance testing for these sugars are performed separately.

In Lactose and Fructose intolerance, the individual has a deficiency in the enzymes needed for its absorption. Normally, it is broken down in the small intestine, absorbed, and very little lactose or fructose reach the large intestine. If it reaches the colon in its raw form, it is metabolized by colonic bacteria producing a large amount of gas which can be measured distally in the breath sample. (Positive Intolerance Test).

- Have your physician call Scheduling at 410.933.7495 to order the test.
- No laxatives for at least a week and no antibiotics for 4 weeks.
- Other medications may be taken 6 hours before with water. Call if unsure.
- The Day Before the test: Avoid high-fiber foods like bran, coarse breads, pasta, butter, margarine, nuts, beans and uncooked vegetables.
- Do not smoke for at least 1 hour before the test.
- Early dinner of plain white rice and broiled fish, meat or chicken. Use salt only.
- You may drink water, non-flavored black coffee or tea the day before. No sodas.
- Fast for 12 hours before the test, consuming no food except water.
- On the day of your study, report to Room 205 30 minutes before to register.
- Do not smoke, sleep or exercise vigorously ½ hour before or anytime during test.

This test will take at least 3 hours or longer. We have magazines for your reading enjoyment or, if you prefer, enjoy a movie while the test is in progress. Don’t hesitate to ask questions during the procedure.

ERIC TOMAKIN, RN, BSN Tel: 410.583.2614 Fax: 410.583.2626
Green Spring Station. 2360 W. Joppa Road. Joppa Concourse Ste. 206. Lutherville MD 21093