

Detection of small intestinal bacterial overgrowth (SIBO) Methane-hydrogen breath test



Test Instructions

The test set contains the following materials:

1 x Request Form

1 x Test instruction

1 x Breath sampling device

7 x Test tubes

1 x 10 g Lactulose

1 x Test protocol

7 x Secondary tube for transport

Preanalytics

To avoid false-positive or false-negative test results, please read the following information on preanalytics carefully:

Time	Please, observe the following precautions
4 weeks before	<ul style="list-style-type: none">● No antibiotics
7 days before	<ul style="list-style-type: none">● No laxatives● No antacids (such as aluminum or magnesium hydroxides)
48 hrs before	<ul style="list-style-type: none">● Food:<ul style="list-style-type: none">○ No dietary fiber (e.g.: whole grain products, legumes, cabbage)○ Only easily digestible foods (e.g.: rice, chicken breast).○ No sugar, no sweets● No probiotics● No alcohol
12 hrs before	<ul style="list-style-type: none">● Drinking: Only still water● Food: Fast for 12 hours before the test. (Your stomach must be empty at the beginning of the test!)● No chewing gum● No toothpaste and no mouthwash (rinse teeth with water only!)● Only take the most important medications (consult with your Doctor!)
1 hrs before	<ul style="list-style-type: none">● Do not smoke (even passively)● No physical effort● Do not sleep
During the test	<p>Please do not drink any water after taking the test solution! 1 hr after taking the drinking solution, it is allowed to drink still water again.</p>



Important notes:

- The test tubes must not be opened!
- The test tubes contain a vacuum. They must not be used after the expiration date!
- If possible, the breath test should be performed in the morning, 1 - 2 hours after getting up.
- The amount of lactulose to be administered to children is based on their body weight. Due to the reduced passage time, measurement intervals should be shortened as well. If the breath test is to be performed on children, please contact us to determine the optimal amount of test sugar and measurement intervals.



Instruction

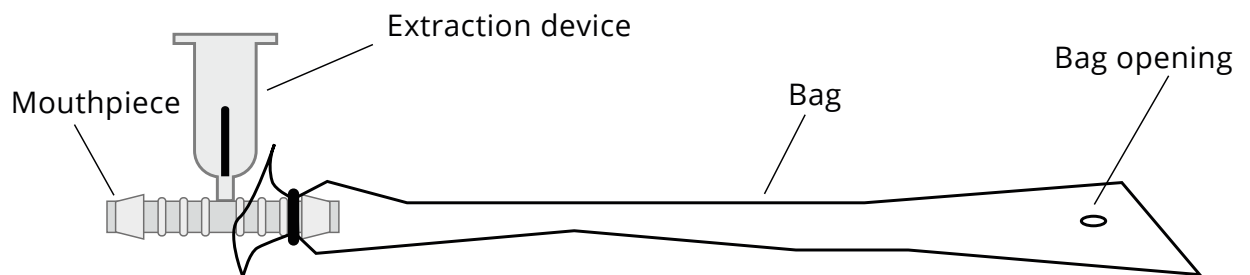
Sampling

- Remove the consecutively numbered test tubes from the transport tubes in the shipping box. Label the tubes with your name and the test date and arrange the tubes in the correct sequence (No. 1 - 7).

Collect the reference sample (test tube no. 1) **BEFORE** taking the test solution:

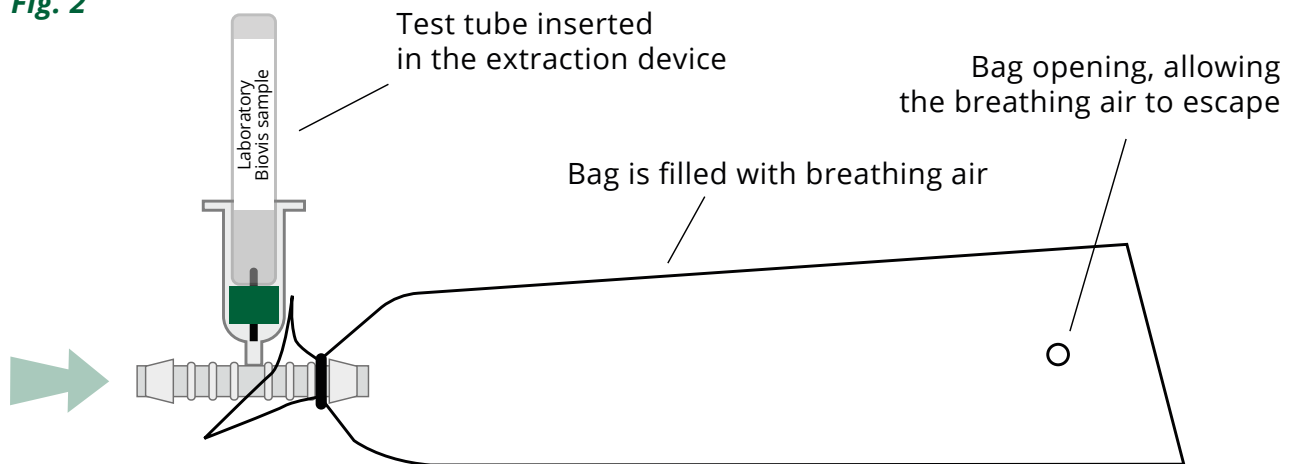
- Take the mouthpiece together with the breathing bag in one hand while holding the labeled sample tube No. 1 in the other hand.
- Inhale, hold your breath for 5 seconds, and then exhale the breath through the mouthpiece into the bag. The bag will slowly fill with breathing air until the air flows out through the opening at the end of the bag (Figure 1).

Fig. 1



- While you are still exhaling, i.e. the bag is filled with your breath, insert the test tube no. 1 with light pressure into the extraction device with the rubber stopper pointing downwards. This causes a needle to penetrate the rubber stopper of the sample tube. Your breath now flows into the tube (Figure 2). Pull the sample tube back out of the extraction device and place it ready for shipment. Don't worry: The breathing air inside the test tube cannot evaporate.

Fig. 2



Caution: During sample collection, the contact between mouth and mouthpiece must not be interrupted.

Collection of the breath samples (test tubes no. 2 to 7) **AFTER** ingestion of the test solution:

- After taking the reference sample (test tube no. 1), drink the test solution. Note the time on the test protocol. **Starting now, please do not drink any more water!** After 1 h drinking still water is allowed again.
- Now take the other six breath samples in turn after 30, 50, 70, 90, 120 and 150 minutes. Proceed in the same way as for the reference sample. Please note the respective times of sample collection (No. 2 - 7) on the test protocol.



Example:

	Required steps		Test time	Time
1.	Take reference sample	Test tube 1 ○	before taking the test solution	7:55
2.	Drink the test solution			8:00
3.	Take breath sample	Test tube 2 ●	After 30 minutes	8:30
	Take breath sample	Test tube 3 ●	After 50 minutes	8:50
	Take breath sample	Test tube 4 ●	After 70 minutes	9:10
	Take breath sample	Test tube 5 ●	After 90 minutes	9:30
	Take breath sample	Test tube 6 ●	After 120 minutes	10:00
	Take breath sample	Test tube 7 ●	After 150 minutes	10:30

Shipping

- In conclusion put each of the seven labeled test tubes in a secondary transport tube and place them together with the completed request form, test protocol and the complete breath sampling device* in the mailing envelope. Please ship the test samples at your earliest convenience.

* The breath sampling device should also be returned to biovis' for proper disposal.