

BREATH TESTING FOR THE THREE PRIMARY FERMENTED GASES

trio-smart is a **mail-in breath test** that measures the levels of **hydrogen, methane,** and **hydrogen sulfide** in a patient's breath after lactulose or glucose consumption. Measuring the three primary fermented gases can offer you clearer insight leading to a personalized treatment plan more quickly.



trio-smart is a validated Laboratory Developed Test (**LDT**) and is conducted in a **CLIA-certified** laboratory.



The **American College of Gastroenterology Clinical Guidelines for Small Intestinal Bacterial Overgrowth** provide authoritative validation of the value of breath testing technology like trio-smart and support mail-in kits with testing in CLIA-certified labs.



The **North American Consensus on Hydrogen and Methane-Based Breath Testing** in Gastrointestinal Disorders establishes common standards utilized by trio-smart.

INDICATIONS & CORRELATIONS

HYDROGEN

Indicative of:
Small Intestinal Bacterial Overgrowth (SIBO)

Correlated with:
No correlation with symptoms

METHANE

Indicative of:
Intestinal Methanogenic Overgrowth (IMO)

Correlated with:
Constipation



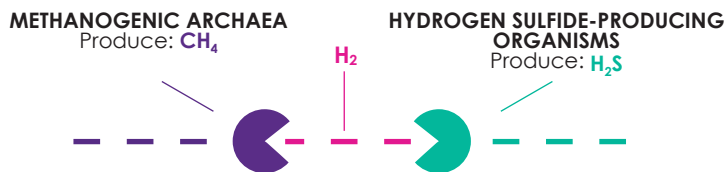
HYDROGEN SULFIDE

Indicative of: **Excess Hydrogen Sulfide**
Correlated with: **Diarrhea**

INTERPLAY OF THESE FERMENTED GASES

Hydrogen is produced by fermenting bacteria, but is also consumed by other organisms, resulting in the production of other gases, including **methane** and **hydrogen sulfide**.

These findings are important, because they suggest that **providers cannot rely solely on hydrogen** measurements, as they are directly affected by methane and hydrogen sulfide.



ORDER trio-smart

Please complete the attached requisition form and email it to **support@triosmartbreath** or fax it to **818-301-3222**. You can also order online by visiting **ordertriosmart.com**. Easy-to-interpret results are reported within seven days of sample receipt.

1. Pimentel, Mark, et al. **ACG Clinical Guideline: Small Intestinal Bacterial Overgrowth**. The American Journal of Gastroenterology, 2020.
2. Rezaie, Ali, et al. **Hydrogen and Methane-Based Breath Testing in Gastrointestinal Disorders: The North American Consensus**. The American Journal of Gastroenterology, 2017.
3. Pimentel, Mark, et al. **Gas and the Microbiome**. Current Gastroenterology, 2013.
4. Pimentel, Mark, et al. **Exhaled Hydrogen Sulfide Is Increased in Patients With Diarrhea: Results of a Novel Collection and Breath Testing Device**. AGA Abstracts, 2021.
5. Singer-Englar, Tahli, et al. **Validation of a 4-Gas Device for Breath Testing in the Determination of Small Intestinal Bacterial Overgrowth**. AGA Abstracts, 2021.

ACCOUNT#: _____

PATIENT INFORMATION

Name: _____ Address 1: _____
First MI Last

Date of Birth: _____ Address 2: _____
mm/dd/yyyy

Sex (Male, Female): _____ City: _____ State: _____ Zip: _____

Email: _____ Phone: _____

PATIENT'S INSURANCE INFORMATION

Check one: ***PLEASE PROVIDE FRONT & BACK COPY OF INSURANCE CARD.***

HMO, PPO, Commercial Insurance* **Medicare / Medicaid***

Provider: _____ Policy #: _____ Subscriber ID: _____

Policyholder: Self Other: _____
Relationship to Patient (e.g., "Spouse," "Parent")

Name: _____ **Cash Pay (\$289)** - Patient will be billed directly via mail.
Policyholder Info (if Other)

Date of Birth: _____ Sex (Male, Female): _____

An insurance claim for **\$289** will be filed on the patient's behalf. Patients with private insurance will be billed the balance of the cost not covered by insurance. Patients with Medicare or Medicaid will be billed copays or coinsurance, if applicable.

I authorize any physician or lab who has treated me or my dependent(s) to furnish any medical information requested. In consideration of services rendered, I transfer and assign any benefits of insurance to Pacific Diagnostics. I understand I am responsible for any co-pay or deductible amounts. I understand I am fully responsible for payment of my account if Pacific Diagnostics is not a participant with my health plan, and my health plan does not fully reimburse my medical services for any reason.

PATIENT SIGNATURE (REQUIRED)

 **SIGN HERE** _____ **DATE** _____
PATIENT SIGNATURE

ORDERING PRESCRIBER INFORMATION


Prescriber or Clinic Account Name: _____ Address 1: _____
 (If Clinic Account) Reference Prescriber: _____ Address 2: _____

NPI: _____ City: _____ State: _____ Zip: _____

DELIVER TEST RESULTS TO: _____ Phone: _____
Enter Email Address or Fax Number

LABORATORY TEST ORDERED

trio-smart CPT code: 91065

 **Substrate (required):** _____
Lactulose or Glucose

PacificDx
 5 Mason, Suite 100, Irvine, CA 92618
 Laboratory Director: Shelly Gunn, MD, PhD

SUBSTRATE RX

If you have ordered a lactulose breath test, **please provide your patient with a prescription** for one dose of **10gm/15ml solution of lactulose**.

If you have ordered a glucose breath test, one dose of **75gm solution of glucose** will be **included in the sample collection kit**.


ICD-10 DIAGNOSIS CODE (REQUIRED)

- R14.3**
(Flatulence)
- R14.0**
(Abdominal Distension)
- R14.2**
(Eructation)
- R10.9**
(Abdominal pain)
- K58.8**
(IBS)
- K58.0**
(IBS-D)
- K58.2**
(IBS-M)
- K58.9**
(IBS with no diarrhea)

Other: _____

PRESCRIBER SIGNATURE (REQUIRED)

As the ordering prescriber named above, I certify that the patient whose specimen is being submitted for analysis has been informed of the benefits and limitations of the laboratory test(s) requested, has had the opportunity to have all questions answered adequately, and, if required by my institution, has given informed consent.

 **SIGN HERE** _____ **DATE** _____
PRESCRIBER SIGNATURE