氢呼气试验
Hydrogen Breath Test (Chinese)

什么是氢呼吸测试? What is a Hydrogen Breath Test?

这是一种对细菌过度生长或对乳糖、果糖或蔗糖不耐受的测试。葡萄糖是一种糖会被小肠中的细菌（如果存在）分解，副产物是氢气或甲烷气体。呼吸样本将被分析氢或甲烷含量，以确定你是否能够正确分解乳糖、果糖或蔗糖，或者你是否有细菌过度生长。

This is a test for bacterial overgrowth, or intolerance to lactose, fructose, or sucrose. Glucose is a sugar that will be broken down by bacteria (if present) in the small bowel with hydrogen or methane gas as a by-product. The breath sample will be analyzed for hydrogen or methane content to determine if you are able to properly break down the lactose, fructose, or sucrose, or if you have bacterial overgrowth.

我能从氢呼气测试中得到什么?

What can I expect from a Hydrogen Breath Test?

这项测试要求你饮用葡萄糖、乳糖、果糖或蔗糖在水中的混合物。 This test requires that you drink a mixture of glucose, lactose, fructose, or sucrose in water.

- **葡萄糖** 是一种糖，会被小肠中的细菌（如果存在）分解，副产物是氢。

  Glucose is a sugar that will be broken down by bacteria (if present) in the small bowel with hydrogen as a by-product.

- **乳糖** 是牛奶中的糖，通常在小肠中分解。 **Lactose** is the sugar found in milk and is normally broken down in the small bowel.

- **蔗糖** 是一种常见的糖，存在于糖果等食物中。 **Sucrose** is a common sugar found in foods such as candy.

喝完溶液后，你将被要求向着塑料袋中呼吸。成人每 15 分钟采集一次呼吸样本，儿童每 30 分钟采集一次样本。将分析呼吸样本的氢含量，以确定你是否能够正确分解乳糖或蔗糖，或者你是否有细菌过度生长。 After drinking the solution, you will be asked to breathe into a plastic bag. Breath samples are obtained every 15 minutes for adults, and every 30 minutes for children. The breath sample will be analyzed for hydrogen content to determine if you are able to properly break down the lactose or sucrose, or if you have bacterial overgrowth.

葡萄糖检测持续约 2 小时 还有 **乳糖、果糖和蔗糖的测试持续约 2-3 小时。**该测试在医疗程序单位的胃肠生理学实验室进行。

The test for glucose lasts about 2 hours and the **test for lactose, fructose, and sucrose lasts about 2-3 hours.** The test is performed in the Gastrointestinal Physiology Laboratory of the Medical Procedure Unit.

如何准备氢呼气测试？ How do I prepare for a Hydrogen Breath Test?

请按照以下说明操作，以确保测试成功。

Please follow the instructions below to ensure a successful test.

- **测试前 4 周： 4 weeks before your test:**
  - 停止服用抗生素 Stop taking antibiotics
  - 停止服用肠道准备 Stop taking bowel preps
- **测试前 2 周： 2 weeks before your test:**
  - 停止服用 Pepto Bismol。 Stop taking Pepto-Bismol.
- **测试前一周： 1 week before your test:**
  - 停止服用泻药 Stop taking any laxatives

- 停止服用任何促动力药物（雷格伦、多潘立酮、红霉素） Stop taking any motility Medications (Reglan, domperidone, erythromycin)

- **测试前 2 天：** 2 days before your test:

  - 吃**低碳水化合物和低乳制品饮食。**这种饮食的目的是在检测前 2 天内避免在肠道内产生气体的食物，因为这可能会导致检测结果不准确。

    Eat a **low carbohydrate and dairy diet.** The purpose of this diet is to avoid foods that may produce gas in the intestinal tract for 2 days before your test, as this could cause inaccurate test results.

	允许 Allowed	避免 Avoid
谷物/淀粉 Grains/starches	大米、藜麦、土豆、燕麦片、玉米饼、爆米花、无麸质面包/饼干/意大利面。 Rice, quinoa, potato, oatmeal, corn tortillas, popcorn, gluten-free bread/crackers/pasta. 谷类食品：普通切里奥斯，普通大米/玉米饼，玉米片，大米脆饼。 Cereals: plain cheerios, plain rice/corn Chex, corn flakes, Rice Krispies.	小麦制品包括面包、意大利面、饼干、饼干、蛋糕、谷物、玉米粉饼、黑麦 Wheat products including bread, pasta, crackers, cookies, cake, cereal, flour tortilla, rye barley
蔬菜 Vegetables	甜椒（任何颜色）、胡萝卜、韭菜、黄瓜、茄子、青豆、甘蓝、生菜、橄榄、防风草、菠菜、夏/冬南瓜、西葫芦、番茄。 Bell peppers (any color), carrots, chives, cucumber, eggplant, green beans, kale, lettuce, olives, parsnip, spinach, summer/winter squash, zucchini, tomato.	洋蓟、芦笋、花椰菜、大蒜、韭菜、蘑菇、秋葵、洋葱/青葱、雪豌豆、糖豌豆。 Artichoke, asparagus, cauliflower, garlic, leeks, mushrooms, okra, onion/shallots, snow peas, sugar snap peas.

	限制为½杯分量：甜菜、胡桃南瓜、西兰花、布鲁塞尔芽、玉米、茴香球茎、青豆、甘薯。 Limit to ½ cup portion: beets, butternut squash, broccoli, brussel sprouts, corn, fennel bulb, green peas, sweet potato.	
水果 Fruit	香蕉、蓝莓、哈密瓜、蔓越莓、葡萄、蜜露、猕猴桃、柠檬、酸橙、橙子、木瓜、菠萝、石榴、覆盆子、草莓、鳄梨 Banana, blueberry, cantaloupe, cranberry, grapes, honeydew, kiwi, lemon, lime, orange, papaya, pineapple, pomegranate, raspberry, strawberry, avocado	苹果、杏子、黑莓、樱桃、干果（葡萄干）、葡萄柚、芒果、油桃、梨、桃、李子、李子、西瓜。 Apple, apricot, blackberry, cherry, dried fruit (raisins), grapefruit, mango, nectarine, pear, peach, plum, prunes, watermelon.
蛋白质 Proteins	肉、蛋、鱼、豆腐、大多数坚果（见"避免"栏）、花生酱、杏仁酱。 Meat, eggs, fish, tofu, most nuts (see "avoid" column), peanut butter, almond butter.	豆类、鹰嘴豆、毛豆、腰果、开心果。 Beans, hummus, edamame, cashews, pistachios.
乳品的 Dairy	*不含乳糖* 牛奶/酸奶/冰淇淋、米浆、任何陈年或硬奶酪（包括切达干酪、普罗沃龙干酪、瑞士干酪、帕尔马干酪、羊奶干酪、山羊奶酪等） *Lactose free* milk/yogurt/ice cream, rice milk, any aged or hard cheese	牛奶，酸奶，冰淇淋，白干酪，乳清干酪，奶酪，豆奶，杏仁奶 Milk, yogurt, ice cream, cottage cheese, ricotta, cheese, soy milk, almond milk

	(including cheddar, provolone, swiss, parmesan, feta, goat, etc)	
饮料 Beverages	水、咖啡、茶、无糖饮料（水晶灯、减肥汽水）Water, coffee, tea, sugar-free beverages (crystal light, diet pop)	普通苏打水和其他含高果糖玉米糖浆的饮料 Regular soda and other beverages with high fructose corn syrup
甜味剂 Sweeteners	纯枫糖浆、糖替代品（如甜菊糖）、食糖。Pure maple syrup, sugar substitutes (such as Stevia), table sugar.	龙舌兰、蜂蜜、高果糖玉米糖浆。Agave, honey, high fructose corn syrup.

菜单示例： Sample menus:

第一天 Day 1

早餐:2 个炒蛋和 1 个香蕉。

Breakfast: 2 scrambled eggs and 1 banana.

午餐：沙拉配烤鸡、番茄、黄瓜、胡萝卜、羊乳酪、香醋+橄榄油调味汁。

Lunch: salad with grilled chicken, tomato, cucumber, carrots, feta, balsamic vinegar + olive oil dressing.

点心:1 杯水果（如蓝莓和草莓），少量花生或杏仁。

Snack: 1 cup fruit (such as blueberries and strawberries), small handful of peanuts or almonds.

晚餐:烤鸡、烤土豆、半杯蒸西兰花。

Dinner: Grilled chicken, baked potato, ½ cup steamed broccoli.

小吃：一杯爆米花。

Snack: 1 cup popcorn.

第二天 Day 2

早餐：纯 cheerios 加无乳糖牛奶（如 Lactaid 品牌）或燕麦加肉桂和蓝莓。

Breakfast: plain cheerios with lactose-free milk (such as Lactaid brand) or oatmeal with cinnamon and blueberries.

午餐：三明治配火鸡、奶酪、生菜和番茄，配无麸质面包；纯薯片或一个橙子。

Lunch: sandwich with turkey, cheese, lettuce, and tomato on gluten-free bread; plain potato chips or 1 orange.

点心：小胡萝卜和一根奶酪棒。 **Snack**: baby carrots and 1 cheese stick.

晚餐：烤三文鱼配柠檬、糙米或奎奴亚藜、炒西葫芦和黄南瓜。

Dinner: grilled salmon with lemon, brown rice or quinoa, sautéed zucchini and yellow squash.

小吃：1 杯葡萄 Snack: 1 cup grapes

测试前一天： **One day before your test:**

在**测试**前至少 24 小时内，或**测试**期间的任何时间内，不得吸烟或吸电子烟。

Do not smoke or vape for at least 24 hours prior to the test, or any time during the test.

测试当天： **The day of your test:**

- 你应该 **在测试前 8 小时，测试前 8 小时，您不应该吃任何东西。**

  You should have **nothing by mouth eight 8 hours before the test.**

- **不要吃、喝或抽烟** 直到你的**测试**结束。

  Do not eat, drink, or smoke until your examination is completed.

- 这包括任何类型的 **口香糖或糖果。** This includes any type of **gum or candy.**

- 至少 1 在**测试**前 1 小时内或**测试**期间的任何时候，不要睡觉或锻炼。

  Do not sleep or exercise for at least 1 hour before taking the test or at any time during the test.

请注意：可以在结肠镜检查准备的任何时间进行呼吸测试；但 不是在结肠镜检查准备，或任何需要肠道准备的检查后的四周内。 **Please note:** breath tests can be done any time *before* a colonoscopy prep; but not for four (4) weeks *after* a colonoscopy prep, or any test that requires a bowel prep.

氢呼气试验前我能吃药吗？

Can I take my medicine before a hydrogen breath test?

- 是的，在测试的早上喝几口水服用关键药物，例如心脏、血压、呼吸或癫痫的药物。

  Yes, take critical medicines, such as those for your heart, blood pressure, breathing, or seizures, with sips of water on the morning of the test.

- 除非医生或护士建议，否则不要服用非关键药物，包括非处方药（非处方药）和补充剂。

  Do not take noncritical medicines, including over-the-counter medicines (non-prescription) and supplements unless your doctor or nurse has advised you to.

- 如果您无法赴约，请致电（734）936-9250 或免费电话（877）758-2626 与医疗程序单位联系。 If you are unable to keep your appointment, please call the Medical Procedures Unit at (734) 936-9250 or toll-free at (877) 758-2626.