



A hydrogen breath test is being conducted by Dr. John Leung to evaluate for lactose intolerance. (Image courtesy of John Leung.)

## Do you experience bloating after drinking milk?

*If so, you may have lactose intolerance*

BY JOHN LEUNG MD, CHRISTIANNA MORAN AND REBECCA STANSKI

### What is lactose intolerance?

Lactose intolerance is a very common condition in which people experience abdominal symptoms shortly after consuming milk or milk products.

### What is lactose?

Lactose is a sugar that is found in milk and milk products. It is broken down by an enzyme called lactase (produced in the small bowel) into smaller sugars that can be absorbed by the body.

### What are the symptoms?

1. abdominal bloating, a feeling of fullness or swelling in the abdomen
2. abdominal pain
3. diarrhea
4. gas

### How common is lactose intolerance?

Prevalence	
90%	Asians
70%	African & African Americans
50%	Hispanics
20%	Caucasians

### How is lactose intolerance diagnosed?

In addition to a history and physical, a doctor may order a simple hydrogen breath test to confirm the diagnosis. This test measures the amount of hydrogen in a person's breath before and after eating lactose. Normally, only a small amount of hydrogen is found in the breath when a person eats lactose. However, in a person with lactose intolerance, undigested lactose produces high levels of hydrogen in the breath.

### I have been diagnosed with lactose intolerance, should I avoid lactose completely?

No! Most people with lactose intolerance can tolerate some amount of milk and do not need to avoid milk and milk products completely. Research suggests that adults and adolescents with lactose intolerance could eat or drink at least 1 cup of milk a day without symptoms or with only minor symptoms.

### Why not simply avoid milk completely if I suspect lactose intolerance?

Because milk is a good source of calcium and vitamin D, both of which are important for your well being. People who avoid milk completely may not get enough calcium from other sources, if they do not eat calcium-rich foods or do not take calcium supplement.

### How is lactose intolerance managed?

1. Limit the amount of lactose you eat or drink, but complete avoidance is not necessary.

2. Hard cheeses (such as Cheddar and Swiss) and yogurt are better tolerated than a glass of milk. They are good source of proteins, calcium and vitamin D.

3. Make sure you have adequate calcium and vitamin D intake:

- Non-dairy sources of Vitamin D include: salmon, tuna, cod, mackerel, shrimp, eggs, and milk alternatives and cereals that are fortified with Vitamin D.

- For calcium, there are fortified juices, milk alternatives, cereals, and breads, and wholesome foods like canned salmon (with bones), tofu, broccoli, blackstrap molasses, kale, almonds, turnip greens, bok choy and seaweed

### 4. What is lactose-free milk?

Lactose-free milk and milk products are "pre-digested" with lactase in the manufacturing process to reduce/eliminate lactose content. They are available at most supermarkets and have the same nutritional value as regular milk and milk products.

### 5. What are lactase supplements?

Lactase enzyme pills (such as Digestive Advantage; Lactaid) are available to replace the missing/limited enzyme, so that lactose-containing foods can be eaten with minimal to no side effects. Check with your doctor before using these over-the-counter products as some groups, such as young children and pregnant and breastfeeding women may not be able to use them.

### About the authors

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# 飲用牛奶後，你是否感覺胃脹呢？ 如果是的話，你可能有乳糖不耐症。

由塔芙茨醫療中心的梁爾尊醫師、  
Christianna Moran及Rebecca Stanski撰寫

## 什麼是乳糖不耐症？

乳糖不耐症是一種很普遍的病症，當患有該病症的人飲用牛奶或食用奶製品不久之後會有一些腹部的症狀。

## 什麼是乳糖？

乳糖是一種糖，它被發現存在於牛奶和牛奶製品中。乳糖被一種酶，這種酶被稱為乳糖分解酵素（存在於小腸中），分解為更細小的能被人體吸收的糖。

## 有哪些症狀？

1. 腹脹、腹部感覺飽滿或腫脹
2. 腹部疼痛
3. 腹瀉、痢疾
4. 腸胃脹氣

乳糖不耐症多普遍？	
患病率	族裔
90%	亞裔
70%	黑人
50%	西班牙裔
20%	白人

## 如何診斷乳糖不耐症？

除了病史以及身體檢查外，醫生還可能通過一種簡單的氫氣呼吸測試來確診乳糖不耐症。這個測試用乳糖前後的呼出氣中的氫氣量。通常只有非常小的氫氣被發現在呼

出氣中。然而，乳糖不耐症患者不能消化乳糖，所以就產生了有大量氫氣在呼出的氣。

## 我被診斷有乳糖不耐症，我應該完全避免乳糖嗎？

不！大部分患有乳糖不耐症的人都能夠接受一定量的牛奶，所以不需要完全避免食用牛奶或牛奶製品。研究建議，患有乳糖不耐症的人可以每日飲用一杯牛奶（約240毫升）。

## 如果我被懷疑有乳糖不耐症，為什麼不簡單的避免接觸牛奶？

因為，牛奶是一種鈣質和維他命D的良好來源，這兩種物質都對人體的健康很重要。那些完全避免牛奶的人可能沒辦法從其他來源獲得足夠的鈣質，如果他們沒有食用富含鈣質的食物或鈣片。

## 患有乳糖不耐症的人需要注意那些事項？

1. 限制乳糖的攝入，但完全避免乳糖是不必要的。
2. 相比一杯牛奶，硬質奶酪（例如：切達奶酪和瑞士奶酪）和酸奶都是更容易被人體接納的。他們也是很好的蛋白質、鈣質及維他命D來源。
3. 確認你有充足的鈣質與維他命D的攝入量：



梁爾尊醫師（右）幫一位病人做氫氣呼吸測試，該測試評估鑑定乳糖不耐症。（圖片由梁爾尊醫師提供。）

不是乳製品的維他命D來源包括：鮭魚、金槍魚、鱈魚、馬鮫魚、蝦、蛋、以及牛奶替代品麥片被強化了維他命D。

至於鈣質來源有，那些被強化的果汁、牛奶替代品、麥片和麵包。還有那些有益健康的食物，例如：帶骨鮭魚罐頭、豆腐、西蘭花、赤糖糊、甘藍菜、杏仁、蕪菁葉、小白菜、以及海帶。

## 什麼是無乳糖牛奶？

無乳糖牛奶及牛奶製品是在製造過程中運用乳糖酶預消化以達到降低或消除乳糖的含量。在大部分超市都可以購買到無乳糖牛奶及牛

奶製品，同時他們的營養價值與普通牛奶及牛奶製品相同。

## 什麼是乳糖酸補充劑？

乳糖酶補充劑（例如，益生菌助消化軟糖，乳糖酶等品牌）都是有效的乳糖酶替代品。這些補充劑補乳糖不耐症患者缺乏的化酶，讓他們能夠消化乳糖食品而且減少或去除副作用。在使用這些非處方藥物前，請與您的醫生諮詢一下。因為有一些人群是不能使用該類藥物的，例如，嬰幼兒、孕婦、以及正在母乳哺育的婦女。

## 關於作者

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一篇文章由劉維佳翻譯

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