1) clinical trial	2) gut microbiome	3) processed	4) sensors	5) spinach and yogur	t 6) wea	arables	
Sam Srisatta has been living in this hospital room at the National Institutes of Health for two weeks.  Do you have, like, on? Like, tracking everything?  Yes. So I do have a couple of these							
He's not sick. He's a participant in a, one of the first of its kind, measuring his movement, his blood, his, even the air he breathes, all to try to better understand how our health is affected by ultra-processed foods.  Oh, I think your food is coming in. And we saw the kind of food he got and eggs and But we don't know. That could be It could be unprocessed. That's part of the trial.							
1) additives 2)	mechanisms 3) ov	erconsume calorie	4) potentially	5) preservatives	6) whole-gra	in breads	
	y to drive overeating			your own kitchen. They earcher Dr. Kevin Hall.			
category. But there could be head So things like of some of the add about whether or rand that's what the	What we often think of as junk foods probably captures a big chunk of the ultra-processed foods in a kind of a category. But there's a lot of things that people would be surprised are in the ultra-processed foods category and could be healthy for you.  So things like that you might buy from the supermarket. Most of those are considered ultra-processed because of some of the additives and that are in there, as well as how they're manufactured. But there's a lot of debate about whether or not all ultra-processed foods are bad for you.  And that's what this trial is trying to find out.  What are the? What is it about this category of foods that is driving people to?						
1) drive 2) ener	gy density 3) hypei	-palatability 4)	just the right com	nbinations 5) minir	nally 6)	overeat	
<ul> <li>Dr. Hall's team has two ideas about what might be causing people to some ultra-processed foods. Their or how many calories are in each gram of food, and their, when foods contain of salt, sugar, fat, and carbs to make us not want to stop eating them.</li> <li>This is where they prepare all of the food. And they don't just prepare it; they weigh it before it goes up and when it comes back after the participant has eaten.</li> <li>Each day participants in the trial are offered a total of 6,000 calories and researchers measure how much they choose to eat. The trial is a month long and each week has a different diet, processed or different kinds of ultra-processed.</li> <li>Sam was in an ultra-processed week during our visit but one with foods Dr. Hall doesn't expect will him to overeat.</li> </ul>							
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1) carbon dioxide	2) carbs 3) c	onsume 4) ill	ustrative 5)	) metabolic chamber	6) one tray	of food	
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Do you know what I think they're mea The air he breathe	Once a week, Sam spends a full day sealed in this  Do you know what they're measuring in there?  I think they're measuring how much O2 I and how much I release.  The air he breathes in and out can tell researchers how many calories he's burning and whether they're coming from or fat, all to help understand what ultra-processed foods really do to our hodies.						

## **Translation**

山姆·史里薩塔(Sam Srisatta)已經在美國國家衛生研究院(NIH)的這間病房住了兩個星期。

「你有穿戴式裝置之類的東西嗎?像是監測所有數據?」

「有的。我確實有戴幾個這樣的感測器。」

他並沒有生病。他是一項臨床試驗的參與者,這是同類型研究中少數的先鋒之一。試驗內容包括測量他的活動量、血液、陽道微生物組,甚至還有他呼吸的空氣,目的在更深入了解超加工食品(Ultra-processed foods)對我們健康的影響。

「喔,我想你的食物送來了。」我們看到他拿到的食物——蛋、菠菜和優格。但是我們不確定,這些可能是加工的,也可能是未加工的,這就是試驗的一部分。

超加工食品裡面含有一些你在自己廚房裡不會用到的添加物和成分。根據研究人員凱文·霍爾(Dr. Kevin Hall)先前在NIH的研究,超加工食品會導致過度進食和體重增加。那麼,超加工食品就等同於垃圾食物嗎?

「我們一般認為的垃圾食物,可能在某種程度上涵蓋了很多超加工食品。但其實有很多人意想不到的東西也屬於超加工 食品,而且有些甚至可能對你是健康的。

舉例來說,你在超市買的大部分全麥麵包,由於裡面所含的添加物、防腐劑,以及製造的方式,大多都被視為超加工食品。不過,關於所有超加工食品是不是都對健康有害,仍有很多爭議。

而這項試驗下是要找出原因。

究竟它們的機制是什麼?這類食品到底是哪個部分使人攝取過多熱量呢?」

霍爾醫師的研究團隊對於為什麼有些超加工食品會導致人們過度飲食,提出了兩個可能的原因。第一是能量密度,也就是每克食物含有多少卡路里;第二是所謂的「超高美味性」(hyper-palatability),也就是當食物同時具備適當比例的鹽、糖、脂肪與碳水化合物時,會讓人想不停地吃下去。

這裡就是準備所有食物的地方。他們不只準備食物,還會在餐點送出去之前,以及參與者吃完後收回來時,一一秤重。 在這項試驗中,每天都會給參與者高達 6,000 大卡的食物,研究人員則測量他們實際攝取了多少。這項試驗總共進行一個月,每週提供不同的飲食,包含「低度加工」或不同種類的「超加工」飲食。

我們拜訪時,山姆正處於「超加工飲食週」,但這週的食品內容並不是霍爾醫師預期會讓他過量進食的那種。

「這怎麼會是超加工的呢?」

「這跟成分有關。比如我們在那個蛋捲裡使用的蛋,裡面有液態蛋白製品,其中的成分使它成為超加工食品,不只是單純的雞蛋。

我們的優格、還有加進優格裡的煎餅糖漿、都含有各種超加工的調味料與甜味添加物。」

隔天,山姆就會改吃能量密度更高、也更「超高美味」的餐點,這些更有可能導致過度進食。

「你可以看到這些都是超加工食品,而且和這些(低度加工食品)相比,份量看起來也有明顯差異。」

「哇·這真的很有說服力。光用看的就知道·第一種飲食需要兩大盤才裝得下·而下一種飲食只需要一盤·但提供(或至少預計提供)相同的熱量。」

「對,沒錯。」

每週有一天,山姆會整整一天待在這個代謝艙裡面。

「你知道他們在裡頭測量什麼嗎?」

「我想他們在測量我消耗了多少氧氣,以及排出了多少二氧化碳。」

他吸入和呼出的空氣,可以告訴研究人員他消耗了多少熱量,以及這些熱量主要來自碳水化合物還是脂肪。所有這些測量,都是為了更了解超加工食品對我們身體真正產生的影響。



You can view this activity online at this link:

https://linguadox.com/2024/12/27/cnn-news-highlights-ultra-processed-foods/

## **Answers**

1) clinical tri	2) gut microbiome	3) processed	4) sensors	5) spinach and yogurt	6) wearables
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Sam Srisatta has been living in this hospital room at the National Institutes of Health for two weeks.

Do you have, like, 6) wearables on? Like, tracking everything?

Yes. So I do have a couple of these 4) sensors.

He's not sick. He's a participant in a 1) clinical trial, one of the first of its kind, measuring his movement, his blood, his 2) gut microbiome, even the air he breathes, all to try to better understand how our health is affected by ultraprocessed foods.

Oh, I think your food is coming in. And we saw the kind of food he got and -- eggs and 5) spinach and yogurt. But we don't know. That could be 3) processed. It could be unprocessed. That's part of the trial.

1) additives	2) mechanisms	3) overconsume calories	4) potentially	5) preservatives	6) whole-grain breads
_,		-,	., po,	-, p	, c, miles gram areas

Ultra-processed foods contain 1) additives and ingredients you wouldn't find in your own kitchen. They were shown in the previous NIH study to drive overeating and weight gain, according to researcher Dr. Kevin Hall. Are ultra-processed foods just junk foods?

What we often think of as junk foods probably captures a big chunk of the ultra-processed foods in a kind of a category. But there's a lot of things that people would be surprised are in the ultra-processed foods category and could 4) potentially be healthy for you.

So things like 6) whole-grain breads that you might buy from the supermarket. Most of those are considered ultra-processed because of some of the additives and 5) preservatives that are in there, as well as how they're manufactured. But there's a lot of debate about whether or not all ultra-processed foods are bad for you. And that's what this trial is trying to find out.

What are the 2) mechanisms? What is it about this category of foods that is driving people to 3) overconsume calories?

1) (	drive	2) energy density	3) hyper-palatability	4) just the right combinations	5) minimally	6) overeat

Dr. Hall's team has two ideas about what might be causing people to 6) overeat some ultra-processed foods. Their 2) energy density or how many calories are in each gram of food, and their 3) hyper-palatability, when foods contain 4) just the right combinations of salt, sugar, fat, and carbs to make us not want to stop eating them.

This is where they prepare all of the food. And they don't just prepare it; they weigh it before it goes up and when it comes back after the participant has eaten.

Each day participants in the trial are offered a total of 6,000 calories and researchers measure how much they choose to eat. The trial is a month long and each week has a different diet, 5) minimally processed or different kinds of ultraprocessed.

Sam was in an ultra-processed week during our visit but one with foods Dr. Hall doesn't expect will 1) drive him to overeat.

1) energy-dense 2) ingredients 3) omelet 4) pancake syrup 5) sweeteners 6) volume	
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How is that ultra-processed?

It's all based on the 2) ingredients. So the eggs that we used in that 3) omelet, the egg whites were a liquid-egg product. So it has ingredients in it that make it ultra- processed. It's not just eggs.

Our yogurts, the 4) pancake syrup that was in the yogurt, those all have ultra-processed ingredients in terms of added flavors, added 5) sweeteners.

The next day Sam would switch to meals that were more 1) energy-dense and hyper-palatable, the ones expected to lead to overeating.

So you can see that these are all foods that are ultra-processed. And you can see that the 6) volume compared to this is quite different as well.

1) carbon dioxide	2) carbs	3) consume	4) illustrative	5) metabolic chamber	6) one tray of food

Wow, that is really 4) illustrative. I mean, just looking, you need two trays of food for this one and 6) one tray of food for this next diet when you're getting the same number -- you're offering, at least, the same number of calories. Correct, yes.

Once a week, Sam spends a full day sealed in this 5) metabolic chamber.

Do you know what they're measuring in there?

I think they're measuring how much O2 I 3) consume and how much 1) carbon dioxide I release.

The air he breathes in and out can tell researchers how many calories he's burning and whether they're coming from 2) carbs or fat, all to help understand what ultra-processed foods really do to our bodies.