0071. How Stress Messes With Your Gut 压力如何扰乱你的肠道

Table of Contents

1. How Stress Messes (v.) With 卷入有害的事；与某人有牵连 Your Gut 压力如何扰乱你的肠道

There is another kind of gastrointestinal 胃肠的 illness. It's **inflammatory 发炎的；炎性的 bowel 肠 disease**, or IBD. That's bouts (n.) 一阵；一场；（尤指坏事的）一通，一次;（疾病的）发作；发病期 of disabling 使伤残，使失去能力 pain, bleeding, weight loss, diarrhea 腹泻 and hospitalizations 住院治疗 that sometimes require surgery.

Example 1. 标题

mess

(v.) [VN] (informal) (especially NAmE) to make sth dirty or untidy 使不整洁；弄脏；弄乱

mess with sb/sth

(usually used in negative sentences 通常用于否定句) to get involved with sb/sth that may be harmful 卷入有害的事；与某人有牵连

IBD : Inflammatory Bowel Disease 炎性肠病

还有另一种胃肠道疾病，这是炎症性肠病（IBD）。这会带来一系列令人无法忍受的疼痛、出血、体重减轻、腹泻和住院治疗，有时甚至需要手术。

What Is IBD? Inflammatory bowel disease (IBD) is a term for two conditions（因不可能治愈而长期患有的）疾病 (**Crohn's disease** and **ulcerative 与溃疡形成有关的 colitis** 肠炎) that are characterized 以…为特征 by chronic inflammation of the gastrointestinal 肠胃的 (GI) tract（连通身体组织或器官的）道，束. Prolonged 持久的；长期的 inflammation **results (v.) in** damage to the GI tract.

Example 2. 标题

gastrointestinal

gastro-, 胃。-intestin, 肠。

tract

(biology 生) a system of connected organs or tissues along which materials or messages pass（连通身体组织或器官的）道，束
• the digestive tract 消化道

什么是炎症性肠病？炎症性肠病 (IBD) 是指两种疾病（克罗恩病和溃疡性结肠炎）的术语，其特征是胃肠道 (GI) 的慢性炎症。长期炎症会导致胃肠道受损。

What are the main types of IBD? IBD 有哪些主要类型？

	Crohn's Disease 克罗恩病	**Ulcerative Colitis 溃疡性结肠炎**
Affected Location 受影响地点	Can affect any part of the GI tract (from the mouth to the anus 肛门)—Most often it affects the portion 部分 of **the small intestine** 肠 before **the large intestine** 肠/colon 结肠. 可以影响胃肠道的任何部分（从口腔到肛门）——最常见的是它影响大肠/结肠之前的小肠部分。	Occurs in **the large intestine (colon)** and the rectum 直肠. 发生在大肠（结肠）和直肠中。

	Crohn's Disease 克罗恩病	Ulcerative Colitis 溃疡性结肠炎
Damaged Areas 受损区域	Damaged areas appear in patches（与周围不同的）小块，小片 that are next to areas of healthy tissue. 受损区域出现在健康组织区域旁边的斑块中。	Damaged areas are continuous (not patchy) – usually starting at the rectum and spreading (v.) further into the colon 结肠. 受损区域是连续的（不是片状的）——通常从直肠开始并进一步扩散到结肠。
Inflammation 炎症	Inflammation may reach through the multiple layers of the walls of the GI tract. 炎症可能会穿过胃肠道壁的多层。	Inflammation is present (v.) only in the innermost layer of the lining（身体器官内壁的）膜 of the colon 结肠. 炎症仅存在于结肠内壁的最内层。

Example 3. 标题

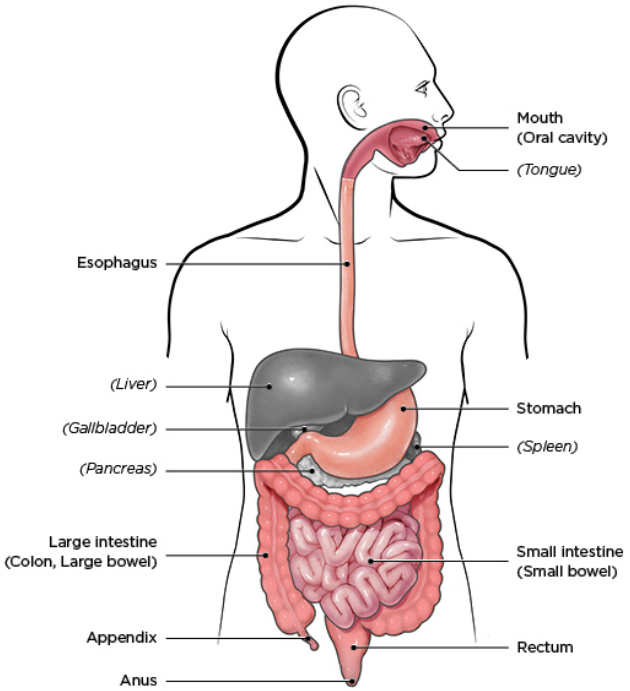
rectum 直肠

词源同 intestinal,rectum,直，词源同 rectangle.

lining

[U] the covering of the inner surface of a part of the body（身体器官内壁的）膜

• the stomach lining 胃黏膜



What are the common symptoms of IBD?
IBD 有哪些常见症状？

- Persistent diarrhea 腹泻 . 持续性腹泻。
- Abdominal 腹部的 pain. 腹痛。
- Rectal bleeding/bloody stools 大便；粪便.
- 直肠出血/便血。
- Weight loss. 减肥。
- Fatigue. 疲劳。

What causes IBD? 是什么原因导致炎症性肠病？

The exact cause of IBD is unknown, but IBD is the result of a weakened immune system. Possible causes are:
IBD 的确切原因尚不清楚，但 IBD 是免疫系统减弱的结果。可能的原因有：

- The immune system **responds (v.) incorrectly to** environmental triggers, such as a virus or bacteria, which causes inflammation of **the gastrointestinal 胃肠的 tract**.
  免疫系统对病毒或细菌等环境触发因素做出错误反应，从而导致胃肠道炎症。

- There also appears to be a genetic component. Someone with a family history of IBD is more likely to develop this inappropriate 不适当的；不合适的 immune response.
  似乎还有遗传因素。有 IBD 家族史的人更有可能出现这种不适当的免疫反应。

How is IBD diagnosed (v.)诊断（疾病）；判断（问题的原因）？
如何诊断炎症性肠病？

- A combination of endoscopy 内镜检查；内窥镜检查 (for Crohn's disease) or colonoscopy 结肠镜检查 (for ulcerative 溃疡性的；引起溃疡的 colitis 结肠炎) and imaging 成像 studies, such as:
  内窥镜检查（用于克罗恩病）或结肠镜检查（用于溃疡性结肠炎）和影像学检查的结合，例如： Contrast radiography. 造影X线摄影。
  a. Magnetic 磁的；磁性的 resonance 共鸣；共振；谐振 imaging (MRI). 磁共振成像（MRI）。
  b. Computed tomography (CT) 体层摄影. 计算机断层扫描 (CT)。
- Stool samples. 粪便样本。
- Blood tests. 血液检查。

Example 4. 标题

endoscopy

内镜检查；内窥镜检查
→ endo- + -scopy.

tom·og·raphy

(n.) /təˈmɒgrəfi/
[U] a way of producing an image of the inside of the human body or a solid object using X-rays or ultrasound 体层摄影（利用X射线和超声波清楚显示体内结构）→ 科技术语，借自希腊语 tomos,切片，部分，词源同 tome,-graphy,写，记录。

computed tomography

计算机断层扫描

I've heard of Crohn's disease, which can be pretty 颇；相当 disabling. Isn't that a type of IBD?
Yeah, it is. The other type is called ulcerative 溃疡性的；引起溃疡的 colitiis 结肠炎.

刘易斯：我听说过克罗恩病，这种病可能会导致严重的致残。这不是IBD的一种吗？
费什曼：是的，确实如此。另一种类型称为溃疡性结肠炎。

And Crohn's often damages the small intestine, although it can hurt other parts of the GI tract as well.

主 What makes them both IBD 系 is inflammation. IBD is often linked to an overactive 活跃过度的 immune system, where the body's own immune cells attack (v.) the digestive tract. And it may have a genetic component.

Fischman：克罗恩病通常会损害小肠，尽管它也会损害胃肠道的其他部分。
导致它们都是 IBD 的原因, 是炎症。 IBD 通常与过度活跃的免疫系统有关，人体自身的免疫细胞会攻击消化道。它可能有遗传成分。

are there any effective treatments?
That's usually some variety of **immune suppressant** (遏制身体正常功能的)抑制剂 such as a steroid 类固醇 drug or a medication that soothes (v.) 减轻，缓解，缓和（身体某部位的紧张或疼痛） inflammation. But even these controlled cases have periodic 间发性的；定期的；周期的 flare-ups 突发事件,病症加重.

有有效的治疗方法吗？
这通常是某种免疫抑制剂，例如类固醇药物或缓解炎症的药物。但即使是这些受控病例也会定期爆发。

The causes of these flares （短暂的）旺火；（摇曳的）光 have been a real mystery. But I've been reading that the reason —or at least one of the main reasons —can be psychological stress.

It's the precise 精确的；明确的 connections. Starting in the brain, researchers traced two different pathways, made up of molecules 分子 and cells that kind of bang 猛敲；砸; 碰撞；磕 into one another. And the paths **led** all the way **down to** the intestines.

stress by itself is not causing the disease, but it's greatly increasing the magnitude 巨大；重大；重要性 of the disease.

主 the first domino to fall with IBD patients 系 was some kind of stressful experience.

这些耀斑的原因一直是个谜。但我一直在读到，原因——或者至少是主要原因之一——可能是心理压力。
这是精确的连接。从大脑开始，研究人员追踪了两条不同的通路，它们由相互碰撞的分子和细胞组成。这些小路一直通向肠道。

压力本身并不会导致疾病，但它会大大增加疾病的严重程度。 IBD 患者倒下的第一张多米诺骨牌是某种压力经历。

So what's the next domino after someone has a fight with their spouse, for example?

That's the release of glucocorticoids 糖皮质激素, those are hormones that the brain triggers when you feel threatened. And these hormones reach two different kinds of cells in the gut, with two different effects.

刘易斯：那么，例如，某人与配偶吵架后，下一张多米诺骨牌会是什么？
费什曼：这是糖皮质激素的释放，这些激素是当你感到受到威胁时大脑会触发的激素。这些激素到达肠道中两种不同的细胞，产生两种不同的效果。

did you know the gut had its own nervous system?
Isn't it called the enteric 肠的 nervous system? I think it has neurons and supporting cells.

Example 5. 标题

enteric
→ enter-, 肠，来自enter，进入，里面。

Fischman：首先，你知道肠道有自己的神经系统吗？
刘易斯：是的，我想我知道。不是叫肠神经系统吗？我认为它有神经元和支持细胞。

So those supporting cells are called glial 神经胶质的 cells. They do a bunch of different things and one is to signal (v.)发信号；发暗号；示意 those hyperactive 极度活跃的；活动过度的 immune cells, the ones I mentioned earlier, when the body is stressed.

Those cells arrive, kind of like an attacking army, and they hit the lining 内衬；衬里;（身体器官内壁的）膜 of the intestines. And bingo 赢啦（用于宣布在宾戈游戏中获胜）, you get inflammation and a flare-up of IBD.

Fischman：所以这些支持细胞被称为神经胶质细胞。它们会做很多不同的事情，其中之一就是当身体受到压力时，向那些过度活跃的免疫细胞（我之前提到的免疫细胞）发出信号。
这些细胞到达时，有点像一支进攻的军队，它们击中了肠道内壁。宾果游戏中，你会出现炎症和炎症性肠病（IBD）的发作。

And what about **the second cell type** you mentioned?

Those are the enteric 肠的 neurons 神经细胞. They control the muscles of the intestines and therefore how quickly or slowly food moves through them. Long exposure to glucocorticoids 糖皮质激素 blocks (v.) these neurons from developing fully 完全地；全部地；充分地. They kind of stay in an immature state.

And immature neurons aren't able to make muscles squeeze 挤压；捏 very hard. So food moves very slowly. And IBD patients feel badly bloated 饮食过度的；胃胀的;（使）膨胀，肿胀 or constipated 便秘的 or crampy（女性经期的）腹绞痛的;痉挛的. It just makes everything worse.

刘易斯：那你提到的第二种细胞类型呢？
Fischman：那些是肠神经元。它们控制肠道肌肉，从而控制食物通过肠道的速度或速度。长期接触糖皮质激素会阻碍这些神经元的充分发育。他们有点停留在不成熟的状态。不成熟的神经元无法使肌肉非常用力地挤压。所以食物的移动速度非常慢。 IBD 患者会感到严重腹胀、便秘或痉挛。它只会让一切变得更糟。

2. How Stress Messes With Your Gut

There is another kind of gastrointestinal illness. It's inflammatory bowel disease, or IBD. That's bouts of disabling pain, bleeding, weight loss, diarrhea and hospitalizations that sometimes require surgery.

What Is IBD? Inflammatory bowel disease (IBD) is a term for two conditions (Crohn's disease and ulcerative colitis) that are characterized by chronic inflammation of the gastrointestinal (GI) tract. Prolonged inflammation results in damage to the GI tract.

What are the main types of IBD?

Crohn's Disease

- Affected Location : Can affect any part of the GI tract (from the mouth to the anus)—Most often it affects the portion of the small intestine before the large intestine/colon.
- Damaged Areas : Damaged areas appear in patches that are next to areas of healthy tissue.
- Inflammation : Inflammation may reach through the multiple layers of the walls of the GI tract.

Ulcerative Colitis

- Affected Location : Occurs in the large intestine (colon) and the rectum.
- Damaged Areas : Damaged areas are continuous (not patchy) – usually starting at the rectum and spreading further into the colon.
- Inflammation : Inflammation is present only in the innermost layer of the lining of the colon.

What are the common symptoms of IBD?

- Persistent diarrhea.
- Abdominal pain.

- Rectal bleeding/bloody stools.
- Weight loss.
- Fatigue.

What causes IBD? The exact cause of IBD is unknown, but IBD is the result of a weakened immune system. Possible causes are:

- The immune system responds incorrectly to environmental triggers, such as a virus or bacteria, which causes inflammation of the gastrointestinal tract.
- There also appears to be a genetic component. Someone with a family history of IBD is more likely to develop this inappropriate immune response.

How is IBD diagnosed?

- A combination of endoscopy (for Crohn's disease) or colonoscopy (for ulcerative colitis) and imaging studies, such as:
    a. Contrast radiography.
    b. Magnetic resonance imaging (MRI).
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