

Module Quiz 6

⚠ This is a preview of the published version of the quiz

Started: Feb 22 at 8:26am

Quiz Instructions



The Brain-Gut Axis

The intestinal brain Enteric Nervous System

Gut feelings

Gut in

My gut tells me



This quiz is open media. You can use anything you'd like except for another person or their answers.

Good luck!

Question 1

1 pts

The enteric nervous system ___

- Is a hypothetical nervous system we think exists but has yet to be proven
- Is tightly controlled by the central nervous system and helps regulate the intestinal system
- Works largely autonomously to regulate and control the intestinal system
- Is a part of the autonomic nervous system that controls all our major organs

Question 2**1 pts**

The fact that all our systems interact with each other ____

- Means we should seek to understand them much like a mechanic does when working on a car
- Means we should adopt a reductionistic approach when trying to understand them
- Means we cannot possibly focus on just one system
- None of the above

Question 3**1 pts**

The microbiome _____

- exists only in our intestines
- exists throughout many areas of our body and especially our gut
- exists from the 4th week of gestation in the developing fetus
- is stable from about the 4th year of life onwards

Question 4**1 pts**

Which of the following characterizes a dysbiotic state?

- Having only a few different species of microbes
- Having a high overall number of microbes
- Having bacteria and fungi in the microbiome
- All of the above

Question 5

1 pts

Short chain fatty acids are produced by a ____ microbiome and they are ____ for us.

- eubiotic : good
- eubiotic : bad
- dysbiotic : bad
- dysbiotic : good

Question 6

1 pts

A promising line of research suggests that ____

- Injecting patients with bacteria directly into the gut may improve gastro-intestinal related diseases and anxiety
- Transplanting fecal matter from a healthy patient into an unhealthy one may improve their health
- Electrical stimulation of the enteric nervous system reduces stress-related disease
- Regularly “flushing out” the intestinal tract acts as a reset mechanism to restore health

Question 7**1 pts**

When the Vagus nerve is turned on _____

- Organisms enter a parasympathetic state
- Organisms enter a sympathetic state
- This indicates a state of poor health
- People feel a compulsive urge to gamble

Question 8**1 pts**

There are three ways microbes communicate with the Vagus nerve. Which of the following is NOT one of them?

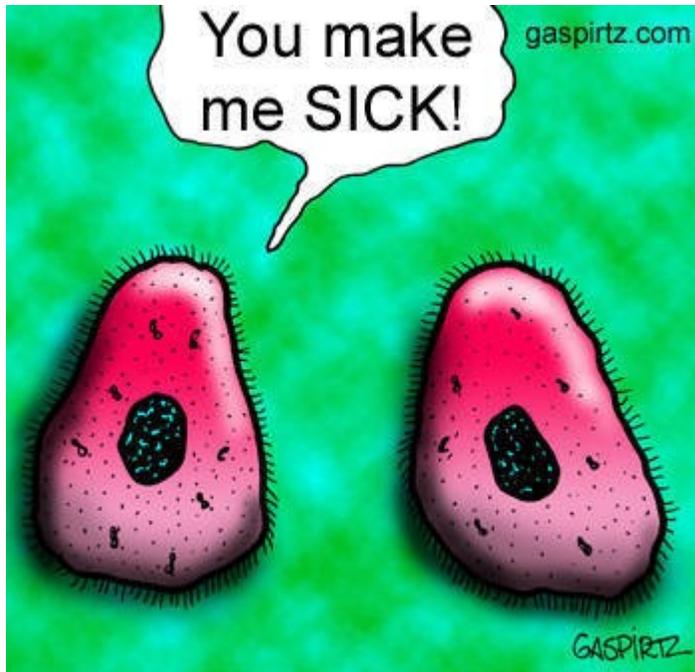
- Microbes produce hormones that affect the Vagus nerve
- Microbes exit through the intestinal wall to stimulate or inhibit the Vagus nerve
- Microbes communicate messages to immune cells that then secrete cytokines to affect the Vagus nerve
- Microbes produce neurotransmitters that then stimulate or inhibit the Vagus nerve

Question 9**1 pts**

Other than by influencing activity in the Vagus nerve, microbiomes can influence the brain via three mechanisms. Which of the following is NOT one of them?

- Microbes produce short-chain fatty acids that enter the bloodstream and travel up to the brain

- Microbes produce hormones that enter the bloodstream and travel up to the brain
- Microbes send signals to immune cells to release cytokines that then enter the bloodstream and travel up to the brain
- Microbes themselves enter the bloodstream and travel up to the brain



When germ relationships go bad

Question 10

1 pts

A new theory of depression proposes that _____

- Gut microbes enter the brain and interfere with normal neurotransmission
- Cytokines released from an illness or infection make us feel like "shi#". The person misinterprets this as indicating they are depressed.
- An overabundance of short-chain fatty acids in the brain inhibits the release of serotonin
- Gut microbes attack the Vagus nerve, chronically disabling it

Question 11**1 pts**

Based on evidence from studies of germ-free mice ____

- We should create as sterile an environment as possible to ensure a healthy HPA axis
- The last thing we want is for microbes to produce GABA because this then stimulates the Vagus nerve
- We want to ensure infants are exposed to a nurturing parental environment and lots of microbes to ensure optimal well-being
- Dysbiosis early in life triggers a compensatory mechanism that then prepares us best to cope with psychosocial stress as adults

Question 12**1 pts**

A healthy microbiome ____

- Increases BDNF to support brain health
- Decreases BDNF to support brain health
- Contains BDNF in the gut to support the development of a healthy microbiome
- What the %\$# is BDNF?

Question 13**1 pts**

If social distancing, mask-wearing, and handwashing were to continue long-term _____

- We will all go nuts!
- Our microbiomes will adapt and become healthier and stronger
- Our microbiomes will become dysbiotic
- Our microbiomes will become eubiotic

Question 14**1 pts**

Based on what you learned in this module, how might we ward off systemic inflammation and possibly diseases like Alzheimer's?

- Keep a colony of disease-ridden mice in your home
- Eat feces, but only from strangers
- Eat foods rich in prebiotics
- Eat food rich in pre and probiotics

Question 15**1 pts**

According to at least one evolutionary theory, we evolved to become social animals _____

- To be able to develop herd immunity from viral infections
- To diversify the gene pool that then results in a more diverse microbiome in developing fetuses
- To collectively fight off infections that threaten our microbiome
- To transfer microbes from one person to another, increasing the likelihood of creating healthy microbiomes



Not saved

Submit Quiz