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A Short Note on Digestion and Better Gut Health

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Abstract

Numerous benefits to your body come from having a healthy gut and the proper balance of microorganisms. The fundamental guidelines are "consume more vegetables, cut back on red meat, and avoid overly processed food" in order to develop and maintain a healthy gut. Although how you eat is equally important to what you eat, it isn't the only thing. It could be reasonable to believe that eating the same meal in the same amounts every day will have the same effect. But recent studies have revealed that factors like as where you eat, how you eat, how frequently you eat, who you eat with, and how you're feeling can all impact how you feel after a meal and its health advantages.

Keywords: Consume more vegetables; Microorganisms; Red meat; Healthy gut

Introduction

Eating food

By encouraging the creation of saliva, chewing is a crucial step in the digestive process that jump-starts digestion. It has the amylase enzyme, which digests starch, which is present in meals like bread and pasta. Up to 30% of carbohydrates are reportedly processed in the mouth, according to research. So, if you bolt down your food, you skip this crucial step. As a result, your stomach is alerted to start secreting the proper combination of acids and digesting enzymes. This also informs the rest of your digestive chain that food is on the way. Another advantage is that you gulp less air, which results in a more comfortable and pain-free digestion [1].

Exact eating hour

Especially if you experience blood sugar problems, eat a substantial breakfast. This is due to our systems being better prepared to metabolise carbs in the morning, for example, the release of insulin is more effective in the morning compared to the evening, linked to our circadian cycle [2].

Snacks are not suitable for late night

This is in part due to the obvious fact that eating a lot followed by laying down increases your risk of experiencing heartburn and indigestion [3]. However, ceasing eating at least a few hours before bed will help you extend your overnight fast.

Reduce intestinal tension

Nutrient absorption and food digestion are both compromised in a stressed gut. Obviously, it's easier said than done to de-stress. However, when you're calm, more blood may flow to the gut, which supports more efficient digestion [4]. Diaphragmatic breathing, sometimes referred to as belly breathing, should be practised for three minutes prior to each meal as this can significantly lessen gastrointestinal irritation, including reflux and indigestion. Put one hand on your chest and the other on your stomach in step one. Breathe in deeply and comfortably via your nose, and then slowly exhale. Making a deliberate decision to convert to diaphragmatic breathing can have a very relaxing impact [5].

Step two involves feeling your bottom hand rise while your chest hand stays static as you take in your subsequent breath and allow your gut and rib cage to extend out. then exhale, and your hand moves the most (known as chest breathing) [6]. There is some evidence to suggest that by taking a break from digestion, our gut microorganisms are free to focus on other crucial duties, such assisting the immune system in removing damaged cells to create place for and promote the growth of new ones.

Social community

According to studies, compared to people who typically ate individually, friends and families that eat together tend to be happier and happier with their lives and feel a stronger sense of community [7]. Additionally, a study with over 40,000 students earlier this year in the journal Frontiers in Nutrition indicated that those who eat with their parents reported performing better in school.

Repair of gut by fasting

A group of scientists recently investigated the impact of intermittent fasting on the gut microbiome, the trillions of bacteria that live in the human gastrointestinal system [8]. The microbiota is certainly altered by intermittent fasting, and some of these changes are positive in our opinion. Certain bacterial strains are growing if you observe fasting generally.

The population of the Lachnospiraceae family of bacteria, for instance, is increased by intermittent fasting. The fight for ecological space among bacteria in the intestines is ongoing. Lachnospiraceae are able to thrive in an empty GI tract, unlike certain other gut microbes. Because they can survive on the slime that the gut produces on its own, they are able to compete with other bacteria during a fast [9]. Butyrate, a short-chain fatty acid that is produced by the lichen Lachnospiraceae, appears to be crucial for intestinal health. It may be possible to lessen pain and other signs of gut dysfunction by using butyrate's ability to signal the immune system in a way that is anti-inflammatory. The function of the intestines' barrier is likewise enhanced by butyrate. This might be quite significant. Common GI diseases, such as inflammatory bowel disease, are characterised by poor barrier function, sometimes

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known as "leaky gut." Intermittent fasting may have significant therapeutic significance if it can reduce inflammation while also normalising the GI tract's walls.

Research has connected various different types of beneficial bacteria to fasting diets including Lachnospiraceae. But the science still has a lot of unanswered questions at this time. Persons with gastrointestinal illnesses don't appear to react to fasting in the same way that people without these health problems do [10]. The same changes to the microbiota are observed in sick persons, but they are less obvious than in healthy participants, according to him. As a result, we are now attempting to ascertain what is happening.

Researchers have found other potential advantages of intermittent fasting besides healthy microbiome changes. A condition known as the migrating motor complex one of the most popular findings in gastrointestinal research. The term "migrating motor complex" refers to periodic, vigorous contractions that move the bacteria in the gut and other contents toward the colon. This repeating contractile wave, which lasts for 90 minutes and has the strength of a nutcracker, swoops through the intestine. This motor complex basically acts like a street cleaning crew cleaning up after a parade [11, 12]. Through more frequent 90-minute repeating cycles made possible by fasting, it guarantees that the gut is cleaned out and cleared between meals. The microbial populations in the gut are also helped to rebalance such that more of them are found in the colon and lower parts of the GI tract. But the moment you take a bite, it stops-it immediately turns off.

Nowadays, people eat continuously throughout the day, or "graze," which limits the amount of time the migratory motor complex has to work. Because many individuals get up in the middle of the night to eat, this function has been confined to the period when we sleep, but even this has been interrupted [13]. "So those longer periods of time when we re-cleanse and re-balance our gut so that we have normal distributions of bacteria and normal population densities-that has been significantly affected by these lifestyle changes," the author explains.

Conclusion

The majority of people could follow a time-restricted eating plan that would give the motor complex 12 to 14 hours per day to function. "If you don't snack, this motor complex would occur between meals, and you'd also have this 12- to 14-hour period at night when the digestive tract was empty," the author explains. In other words, sticking to three meals a day and forgoing between-meal bits (or night time snacks) may be adequate. However, it is still unclear if this type of eating pattern can repair gut damage or address pre-existing dysfunction.

Conflict of Interest

None

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