

Gut microbes—how eating well can cultivate your microbial and social self

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The age-old adage "[you are what you eat](#)" holds profound truth. Nearly every molecule in your body is absorbed from what you eat and drink. Your food choices are directly linked to your [physical](#), [emotional](#) and [social](#) health. And scientists are learning that your [gut health and the microbial communities](#) within you have a significant role to play in orchestrating these processes.

The [gut microbiome](#) takes the components of [food](#) that you cannot digest, like fiber and [phytonutrients](#), and transforms them into signals that regulate [how hungry](#) you are, how strong your [immune system](#) is, and even how you're [thinking](#) and [feeling](#). It's as though the [communities in your gut microbiome](#) are an orchestra for your health, and you conduct their symphony through food.

[I am a gastroenterologist](#) who has spent over 20 years studying how food affects the gut microbiome and overall health. The research is increasingly clear: A gut-friendly approach to nutrition is important for happy and healthy communities both inside and out of your body.

Communities within and without

The fascinating research on the gut microbiome takes us on a journey into the depths of the intestine, where [trillions of microorganisms](#) blur the lines between other and self.

[The term holobiont](#) describes the combined lives of the microbiome and its vessel, working symbiotically to support each other's well-being. This relationship is represented at its extreme in the intestines of [termites](#) and [cows](#), where microbes transform uniform, low-nutrient diets of wood or grass into complete nutrition replete with vitamins and other essential nutrients for health.

When people eat certain foods, like those rich in fiber, they too harbor similar relationships with their microbiomes. You provide your microbes with food and a safe place to live, and they in turn fortify your diet with vital molecules such as [vitamins](#), [short-chain fatty acids](#) and [neurotransmitters](#) that are key for regulating your metabolism, immunity and mood.

Just as food illuminates the importance of the microbial community

within you, it also shines a light on your social community. Food is one of the [foundations of culture](#), serving as the basis of many gifts and shared experiences. You have first dates over drinks and meals, connect with your colleagues over lunch, and share dinners with your family and friends. Food is a type of [social glue](#) that helps bind communities together.

As you feed your microbiome to cultivate a thriving community within your gut, you also figuratively and literally feed your social community when you [break bread with friends and family](#).

Convenient fixes sacrifice community

Convenient, fast, affordable [ultraprocessed foods](#) have some enormous benefits in helping feed a [growing population](#) and enabling an ever-quicken pace of life, but the latest research is showing that there may be [collateral damage](#).

Compared with ancestral diets, industrialized diets may be contributing to [less diverse](#) microbial communities in your gut. Diversity is important for generating key molecules like [butyrate](#) that regulate [appetite](#) and [mood](#). As a result, your microbiome becomes less good at regulating hunger and emotions.

Your social community may also be suffering as result of this disrupted microbial community. In fact, studies on various model organisms have found that microbes can mediate behaviors as diverse as [mating](#) and [aggression](#) by regulating [responses to stress](#). Food and microbes may affect [social behavior in people](#) as well.

Processed foods do serve a purpose. They are convenient and affordable and can be especially useful for people and families with busy lives and limited time to cook. But some are healthier than others. [Adding back](#)

[missing nutrients](#) like fiber and polyphenols to processed foods can help make them healthier, and these can complement a [diet](#) of less-processed foods.

Wisdom cultures around the world

Anthropological research suggests that [traditional diets](#) are a particularly important contributor to health and longevity. Communities in Costa Rica, the Mediterranean and Japan that follow traditional diets have many individuals who live for over 100 years. The [Mediterranean](#) and [Okinawan diets](#) have consistently been shown to contribute to better health, including lower rates of obesity and other metabolic diseases.

These diets involve traditional [food choices and combinations](#) as well as natural [food processing and preservation](#) techniques. Combining corn with lime, an ancient process [called nixtamalization](#), for example, increases [vitamin availability](#) and [decreases grain toxins](#).

[Fermentation](#) transforms food through live microbes that consume simple carbohydrates, generating [antimicrobial chemicals](#) that help preserve food. It also [decreases toxins](#) and increases the levels of [vitamins and minerals](#) available for absorption. [Fermented foods](#) have been shown to grow diverse [microbial communities](#) in the gut, decrease inflammation in the body and reduce the risk of [chronic disease](#).

Communal eating is also intricately woven into the social fabric of [traditional communities](#). The longest-lived communities around the world tend to eat at least one of their [meals together](#) as a family, and eating together is linked to [health benefits](#) including weight regulation and lower depressive symptoms.

Reembracing community

Here are a few simple tips to help you eat well and grow your communities—holobiont, family, friends and all:

1. Eat the [four phonetic food F's](#): fiber, phytonutrients, healthy fats and ferments. I developed this simple way of categorizing foods to streamline the often complicated advice on how to eat well from the perspective of growing a healthy microbiome. It is also independent of [cultural background](#), as these four categories are common elements in the diets of diverse and long-lived populations around the world.
2. Learn the wisdom of traditional food preparation from people who still hold that knowledge. Consider taking a cooking class or spending time in the kitchen learning from a relative or a friend. Then re-share what you learn with your loved ones while preparing and enjoying your own meals.
3. You don't have to be perfect. Even a step toward a healthier meal a day and a communal meal a week can be beneficial.

It may at first seem daunting to carve out time to follow these deceptively simple tips. But with a bit of patience and perseverance, they could be inspiration to improve your and your community's health and wellness.

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