

Nutritional Diversity Tip Sheet

**NEW
BRAIN
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The more diverse we eat, the more diverse our gut microbiome (i.e., the composition of trillions of microbes in our intestine) will become. Sounds reasonable, right? But – why is that a good thing?

Well, research has shown that a diverse gut microbiome is less susceptible to diseases, such as the well-known western lifestyle associated diseases like diabetes or Crohn's disease (1). This might be because one's microbiome and one's immune system are closely linked. A healthy and diverse microbiome thus might support proper functioning of our immune system and help keeping us healthy.

Eating a variety of different food items also enhances the odds that your body gets all the nutrients like vitamins or minerals it needs for proper functioning. This can have an effect on our well-being as well as on our physical appearance, like shiny hair, strong fingernails and healthy-looking skin.

Besides, research suggests that the more diverse we eat, the better our cognitive abilities might be at older age (see my blog on this topic here:

<http://newbrainnutrition.com/four-easy-rules-for-healthy-eating-and-lifestyle/>)! Well, how about that!? Research supports the notion that our gut and our brain are more closely linked than we would have assumed. This would mean that our food choices can actually have an effect on our mental health. Great, right?



So let's have a look at a few simple tips with which you can easily enhance your dietary diversity, and can have fun along the way, too!

1. Add seeds and nuts to your meals
 2. Eat a set menu
 3. Grow your own fresh herbs
 4. Enlarge the variety of what you drink
 5. Try alternatives to your staple foods
 6. Try new dishes, restaurants and cuisines
 7. Join a food cooperative
 8. Distribute your homemade meals across different days
 9. Experiment with seasonings
 10. Try smoothies and soups
 11. Share your meals
- And the golden rule you should keep in mind:
12. Avoid antibiotics

Add seeds and nuts to your meals

By keeping a variety of seeds and nuts at home, you can easily add them to your meals. If you tend to overeat on nuts (and believe me, many people do), make sure to buy unsalted ones, and simply sprinkle them on top of your muesli, salad or sandwich. Nuts (like peanuts, walnuts, hazelnuts) and seeds (like sesame or flaxseed) are a great source of very healthy fats, important vitamins like B-vitamins and vitamin E, and they contain fibres, which our gut simply loves!

Eat a set menu

Yes, you heard me. This is my advice to select a sequence of dishes, instead of only one. This will definitely result in a larger variety of what you eat. Of course, you should be aware of the overall amount of food – listen to your gut feeling! And I'm serious, this also includes dessert! If you have a little soup, a colorful salad, a light main course and a small treat, you've supplied your body with a variety of different nutrients it needs to stay healthy. My extra tip: Keep in mind to include your 'five a day' to make sure you eat enough fruit and especially enough vegetables.

Grow your own fresh herbs

Do you notice that food pictures look more appealing when the food is sprinkled with fresh herbs? It will also appeal to your gut! Adding one or two fresh herbs to a dish will give it that little extra twist that it deserves. All it takes is a plant pot on your window sill. Some herbs can be harvested throughout the whole year, and for even more diversity, you can experiment with different plants as you go.

Enlarge the variety of what you drink

Tea or coffee? Both, please! When we think of nutritional diversity, let's not only consider solid food. Imagine having your coffee and a glass of orange juice (or even a multivitamin drink) with your breakfast. How about some green or black tea as the day goes by? Or an apple spritzer? Herbal teas also offer a great range of different ingredients, and can be soothing in the evening. Just keep in mind that if you taste a few different lemonades, you well might enhance your variety of drinks, but you will consume a lot of sugar, too. The world health organization recommends that maximally 10% of your energy should come from sugar (2), which should be considered when ordering a drink.

Try alternatives to your staple foods

Are you a muesli guy? Or more of a bread person? Do you prefer pasta as your everyday dish or is your menu dominated by rice? Most of us tend to eat the same basic food items every day. But even here is the chance to enhance diversity: Instead of rice, try couscous, amaranth or millet. Buy a different type of bread every time you go to the bakery. Muesli offers a great chance of variety, you can add honey, yoghurt, marmalade, berries, spices... Talk to your friends to get more ideas.

Try new dishes, restaurants and cuisines

Every cuisine has its own flavours, specific components, and style. So why not raiding cook books and food blogs for inspiration? If you go out to eat, just be curious and pick the restaurant you always wanted to try, yet ending up at the same place you always went. This doesn't only increase your daily diversity, but also the one across days, which is especially important: Imagine you create a super diverse menu and then eat it day after day after day... Sounds boring, right? Your gut will share this opinion! My extra tip: Choose restaurants that offer a buffet every now and then. This is specifically handy around lunchtime because you don't have to wait for your food. Again, take a bit of everything, but be careful not to overload your plate. This gives you the chance to try out what you like when you taste a novel cuisine. And imagine the looks you get when you say "Hey, I'm doing this for my microbiome!"

Join a food cooperative

You know that homemade cooking is great. You are in charge of what goes into the pan, you control the ingredients' quality. But, of course, it requires planning, shopping, cooking – not to forget cleaning the kitchen. An easy step towards a diverse, regular cooking habit is joining a cooperative or booking home delivery from organic farms nearby. You get a box full of seasonal, fresh, local fruit and veg delivered to your door weekly. If you know where it comes from, you might be more reluctant to throw it out, hence you might actually cook it and eat it! The surprising variety of what a season has to offer will boost your cooking creativity and enhance your nutritional diversity even further.

Some might object now and remark that when they look at the back of their ready-to-eat supermarket meals, it states that there are so many ingredients in one package, that there is no need to enhance nutritional diversity even more. Sure, there is a point there! But keep in mind that these foods are massively processed, thus having lost many of the original ingredients' benefits like vitamins, etc. Also, if you look closely, you might detect declarations you don't even know what they mean! Those different additives, like E-numbers, are mostly artificially produced, and there is long-term research missing what they actually do to our bodies – especially in interaction with all the other additives found in processed food. Don't get me wrong – every now and then I also grab a bag of ready-to-eat food from the counter.

But what I personally do is to subtract the artificial ingredients from my daily diversity calculation (and now you also know that I like math).

Distribute your homemade meals across different days

This is the same approach as eating a set menu. Imagine you make yourself a nice pasta dish for the evening, and prepare a mixed salad for lunch the next day. How about splitting both in half? That way you expand your food across days, yet adding more daily eatables at the same time. Your microbiome will like the variety that goes along with this. Plus, you don't have to buy canteen food the next day and might save some money – money that could be spent at the fancy restaurant we talked about earlier on!

And yes, distributing food across days also applies to cake and desserts. If you baked a cake (consider adding lots of fruit), have one piece now and one tomorrow! And remember to send your mum a picture of your delicious achievements, she will love it!

Experiment with seasonings

If you go through the seasonings in your kitchen cupboard, you will notice that some seasonings provide a literal boost for your nutritional diversity. I just found a curry powder with 13 ingredients! Of course, if you start and mix different seasonings, a few compounds will be redundant. But when you cook – or simply heat up a bought dish – add that little extra. That way, you can even reduce the amount of salt without giving up on flavour. The world health organization recommends 5 grams of salt per day (2). Simply use high-quality seasoning and herb mixtures instead, maybe add a drop of fine oil for flavour, and let it surprise you!

Try smoothies and soups

For a quick energy boost in the morning, I recommend a smoothie. What I love about smoothies? You can virtually throw everything in there, and by adding just a few ingredients for flavour (like oranges) and texture (like bananas) you can create a tasty and always different vitamin shot. Again, remember seasoning like curcuma or cinnamon to increase variety and diversity. For later meals, there are great recipes for soups – even some that don't require cooking! If you blend your soup, you can easily 'hide' some leftovers in there, or some bits of a vegetable you don't really like.

Share your meals

This is my favourite tip. Have you noticed that also during lunch with colleagues, the grass is always greener on the other side? In our lab, we have switched to a food sharing concept where everybody can take a bit of everyone's meal. In some cultures, like Korea, it is common to place all the food one orders in the middle of the table. They know that sharing is caring – especially caring about one's microbiome diversity!

And last, not least: Avoid antibiotics!

Of course, there are some illnesses where antibiotics are essential. But did you know that animals are fed large amounts of antibiotics, and that we consume them, too, when we indulge into our chicken breast or piece of veal? These antibiotics not only kill unwanted microbes, they also heavily disrupt the ecology of our microbiome (3). So in order to keep your gut happy and to get the most out of your nutritional diversity experiment, think twice before you buy or order conventionally produced meat. Consider organic meat or vegetarian alternatives – hence adding even more possibilities for a diverse menu.

- (1) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3577372/>
- (2) <http://www.who.int/news-room/fact-sheets/detail/healthy-diet>
- (3) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4831151/>

Want to learn more? Visit <http://www.bbc.co.uk/guides/zpf27hv#z8qrg82> for a little quiz and some more information and <https://experiencelife.com/article/your-microbiome-the-ecosystem-inside/> to find out more about your microbiome.



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