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**IN THIS
MENTOR
SESSION:**

- Is your intestine allowing intruders into your blood?
- There's more to gut bacteria than meets the eye!

**INSIDE THIS
ISSUE:**

Unguarded gates	1
What to do?	2
Antibiotics & Yoghurt	3
The right probiotics	4
Prebiotics	4
Trouble bugs...	5
References	6

Health Mentor Programme - Operation 'Super-gut' part 2

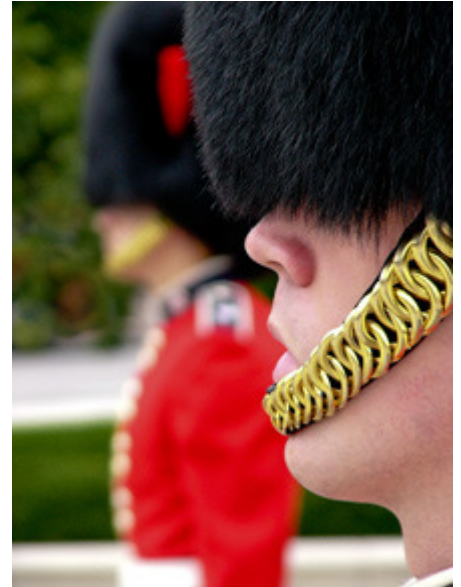
MENTOR SESSION 34

Unguarded gates...

In session 33 we looked at some of the things that can go wrong with your digestive system.

- Ingestion of processed food instead of raw food
- Altered intestinal permeability (the intestine filters through too many substances)
- Altered intestinal bacteria
- Disturbed acid/alkaline balance
- Food allergies
- Decreased digestive enzymes
- Decreased liver functioning and gall secretions

In this session we'll be looking specifically at the issue of altered intestinal permeability and how it causes your gates to be unguarded!



Altered intestinal permeability

The normal functioning of your intestine is interrupted when the barrier function is disturbed. This alteration of 'intestinal permeability' is also called 'leaky gut syndrome'.

Your intestine is a highly sophisticated organ that is the gateway to your bloodstream for the 'outside world'. Food that you eat is digested and eventually introduced into the bloodstream via the mucous membrane of the intestine, which knows which molecules to let through (what you need to stay alive) and which molecules to block from entering the blood stream (toxins, bacteria and undigested food).

In many people this delicate barrier is disturbed, causing the blood stream to be invaded by all kinds of intruders that don't belong there. This can cause:

- Infections
- Toxic reactions due to the absorption of toxins
- Malnutrition
- Auto-immunity

Auto-immunity is where things get rough because now the body makes antibodies against these invaders and sometimes these antibodies attack your own tissues, resulting in auto-immune disease.

Auto-immune disease refers to a group of diseases where the body attacks itself. Examples are rheumatoid arthritis, diabetes and multiple sclerosis.

What removes the guards?

Alterations in 'intestinal permeability' can be caused by:

- Dysbiosis – overgrowth of bad intestinal bacteria and too few good intestinal bacteria or probiotics
- Food allergies (I'll be devoting a whole session to allergies soon)
- Stress (that's why you feel stress in your gut)
- Aging
- Alcohol consumption
- Diseases like rheumatoid arthritis, Crohn's disease, pancreatic dysfunction (this is a bit of the chicken or the egg situation because some of these diseases can actually be exacerbated if you have permeability problems to begin with).



What to do!?

What to do?

You can address the following issues to ensure proper intestinal permeability:

Stress: I don't really have to say this, but it's vitally important that you deal with stress or it will consume you! In fact, I wasn't surprised when it showed up as one of the causes of increased permeability because it pretty much features in every disease!

Food allergies: I prefer an elimination diet over blood allergy testing to determine if someone has a food allergy or not (more about this in a session devoted to allergies).

Alcohol consumption: One glass of red wine a day remains the rule here! If you already have intestinal problems, then I would rather avoid it for a while.

Bring on the bugs...

Now here's an area where you can really make a major difference to your intestine...it's all about the **good** intestinal bacteria or probiotics. But why the fuss about probiotics you may ask? The answer lies in the GALT or Gut Associated Lymphoid Tissue that I spoke about in session 33.

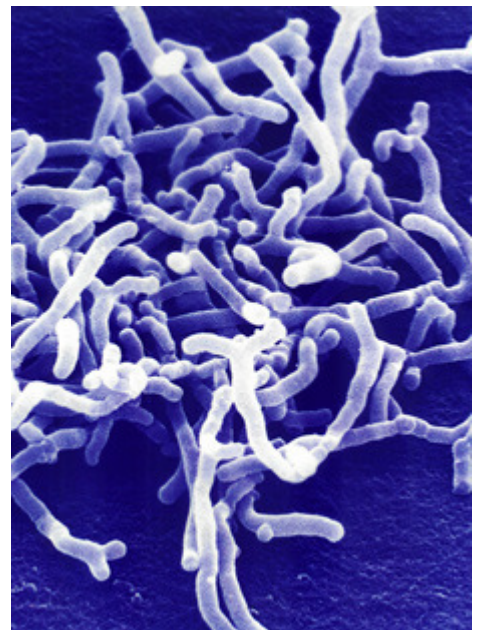
Let me recap...

An adult intestine is approximately 8-10 metres long. In the wall of the intestine are glands that are called GALT or Gut Associated Lymphoid Tissue. These glands are a very important key to your immunity because approximately 80% of your antibodies (which are super-important for your body's defenses) are made here!

GALT needs help

So here's the deal... The good intestinal bacteria present in your intestine exert a positive supportive effect on the GALT, but if you don't have a healthy balance in your intestinal flora (bacteria) then your immunity and general well-being will be negatively affected.

Insufficient levels of good bacteria will also cause the bad bacteria in your intestine to increase in number. This is very problematic because these unfriendly types produce byproducts which are absorbed into the blood stream and are identified as antigenic (foreign) substances which your immune system will attack. Auto-immunity issue all over again!



An electron microscopic image of healthy intestinal bacteria (Strain—Bifidobacteria)

Easy to kill...

Many affected:

How many people are affected by this issue? Well think about this... If you take one course of antibiotics (depending on the type) it can cause the death of so many good bacteria that it **takes 6 months for your intestine to recover!**

Furthermore, a major problem is that we drink chlorinated water, which also damages the healthy bacteria.

So yes, most people need a boost in healthy intestinal bacteria every now and then and people with chronic illnesses need it even more regularly!



It could take your good intestinal bacteria 6 months to recover after one course of antibiotics!



Image by Koh Samui

But I eat yoghurt, isn't that enough to boost my intestinal bacteria?!

The answer is simple...No, it's not.

Yoghurt contains good bacteria but not even remotely enough to be therapeutic to your intestine. The reason why yoghurt has some beneficial intestinal effect is due to organic acids that are naturally present and not due to high enough quantities of probiotics.

Do the math: One capsule of a quality probiotic contains the same amount of bacteria as in 1000 litres of yoghurt!

Probiotics—the superhero bugs!

What can probiotics do for you?

Now that you've realised that you probably need to supplement probiotics, here's more info on how good probiotics can be for you and, believe me, scientific literature abounds with quality information!

Probiotic supplementation supports the intestinal microflora during and after antibiotic therapy.¹⁴

Probiotic supplementation can be used as a support therapy in people with irritable bowel syndrome.^{15,16,17}

Probiotic bacteria may play a role in the modulation of the immune system^{18,19,20} (this is a major issue in people with allergies and auto-immune diseases).

Probiotic bacteria may be useful in the treatment of urinary tract infections and vaginal infections due to bacteria or candida.^{21,22,23,24,25}

Probiotics may support people with chronic fatigue syndrome.¹

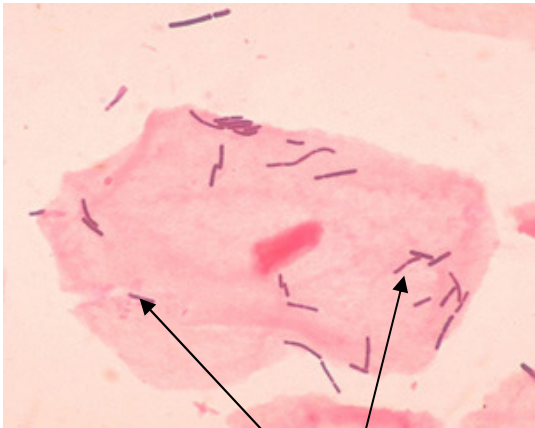
The bottom line is that probiotics are good for you!

Know your good bugs...

Hopefully by now you're fully convinced about the value of probiotics but, like the everybody else, you're seriously confused with the array of products on the shelves in the health shops! I have thus made a study of the available probiotic products and, although you get amazing products, you also get products that contain bacteria/ yeasts that are not advisable as nutritional supplements.

According to the generally accepted scientific criteria, strains used in probiotic products for human consumption should fulfil the following criteria:

- 1) they should be of human origin,
- 2) they should be able to colonise the gut,
- 3) they should be able to stimulate the immune system, and, above all,
- 4) they must have a proven safety profile and specifically shouldn't display any virulence or antibiotic resistance.



Lactobacillus

Here is a list of bacteria that do qualify as true probiotics and have all the health benefits that go with them (note that these are widely available in South Africa)

-Take note this is not an exhaustive list of bacteria that could be good for you. It is however my 'tried and tested' list.

- Lactobacillus acidophilus*
- Lactobacillus rhamnosus*
- Lactobacillus salivarius*
- Bifidobacterium longum* (use above the age of 1 yr)
- Bifidobacterium bifidum* (use above the age of 1 yr)
- Bifidobacterium lactis* (use above the age of 1 yr)
- Bifidobacterium infantis* (use below the age of 1 yr)



Prebiotics are available as chewable tablets or as functional food additives

Feed your good bugs!

Besides supplementing the actual bacteria you can also boost the growth of your probiotics by taking Fructo-oligosaccharides (FOS) or prebiotics, the acceptable food for the bacteria. FOS is widely available in health shops and you'll notice that some supplement producers are now wisely adding it to health shakes and other supplements.

Trouble bugs...

Now let's have a look at ingredients found in certain products claiming to be probiotics that are maybe not at the top of my list:

Soil based organisms:

Most of the SBO's do not qualify as probiotics. My main problem with the soil based organisms is that they do not have an established safety profile. So I'm watching this space because I've learnt that you should never just write something of...

Lactobacillus Reuteri:

Although there are listed benefits for taking this bacteria there is research that points to risks associated with its use pertaining to the development of antibiotic resistance. Many manufacturers claim to have sorted out this problem but I suggest phoning the people who make your favourite L. Reuteri product just to be sure.



Soil based organisms (SBO's) currently do not have an established safety record.



Bakers yeast works best in baking and not as a probiotic supplement!

Saccharomyces boulardii:

This yeast is much like normal baker's yeast (which really just makes it an expensive version of baker's yeast)! It does NOT qualify as a probiotic because:

- it is not of human origin - it originates from fermenting litchi fruit,
- as far as it's known, it does not colonise the gut,
- its safety is being questioned in recent scientific literature and,
- Saccharomyces boulardii is being pointed to as the cause of fungal growth in the bloodstream of some patients.

Therefore, you should carefully read the labels of probiotic products and only use products containing acceptable bacteria.

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About Dr Anton



Dr Anton Janse van Rensburg is a practising medical doctor who has devoted himself to the study of unique, scientifically sound solutions to modern diseases. He is also a qualified metal toxicologist, has a master's degree in Applied Human Nutrition and is the South African programme director for the Robertson Wellness Brain Chemistry Optimisation Programme.

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