



# Q&A with *Kate Waters*

Nutritional Therapist

Kate is a registered nutritional therapist specializing in women's health conditions. She obtained her nutritional therapy qualifications in 2014 from the College of Naturopathic Medicine in London after years of working as a personal chef and discovering the powerful relationship between diet and achieving health.

[Learn more about Kate's whole body approach](#) to identifying and addressing the root cause of an individual's health concerns.

## Q: What is nutritional therapy, and how can it influence my chronic UTI?

**Kate:** Nutritional therapy is not just about nutrition. It uses evidenced-based nutrition science and a wide range of tools to assess and identify potential nutritional imbalances. This nutritional investigation leads to an understanding of how these imbalances may contribute to an individual's symptoms and health concerns.

Nutrition is like a base layer of health. Everything in your body works, functions, and is created from the foods you eat; even your genes are affected by what you eat. This has the potential to have a massive impact on your health, depending on your circumstances.

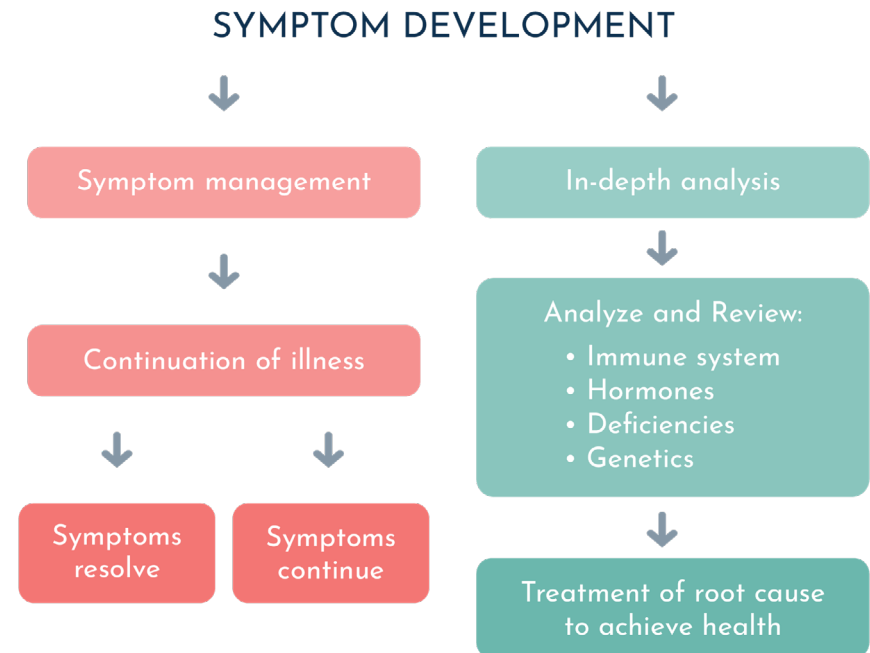
**“Nutritional deficiencies can have a dramatic effect on the body, including immune system function, neurotransmitter creation, and thyroid hormone conversion, allowing the hormones to be usable at the cellular level. We need to remember food is more than just fuel!”**

Ensuring the diet is anti-inflammatory rather than pro-inflammatory is important, but going beyond food and looking at supplementation can be beneficial. The supplementation process can support deficiencies and further influence the healing process.

## Q: How does nutritional therapy differ from simply making healthy food choices?

**Kate:** Everyone is unique and there is no one-size-fits-all approach. By looking at food and lifestyle factors that may influence the function of the body and by considering the biochemical individuality

of each client, nutritional therapists can look at the whole body systemically. This in-depth analysis allows nutritional therapists to address all the different systems in the body and look for the root cause rather than simply treating the symptoms.



I often look at hormones and use functional testing of microbiome sites like the mouth, gut and vagina to assist me in my understanding of what is driving the condition as well as what the root cause may be. Nutritional therapy is never a replacement for medical advice, and I often work alongside medical professionals or other health care providers who are involved in my clients' cases.

Ultimately, nutritional therapy looks at the mind, body, and soul! In an effort to address stress, emotions and past or present trauma, I sometimes refer clients for mental health therapy; and in some cases that is the key to unlocking a health condition.

## Q: How do antibiotics affect gut health?

**Kate:** Our bodies have a wonderful array of dense microbial communities consisting of bacteria, viruses, and fungi in many sites, with the gut being one. Antibiotics can be lifesaving and have improved our standard of living greatly since they were first discovered, but our microbes are becoming more and more resistant to them.

'Mounting evidence shows that [antibiotics influence the function of the immune system](#), our ability to resist infection, and our capacity for processing food. Therefore, it is now more important than ever to revisit how we use antibiotics.'<sup>1</sup>

Unfortunately, antibiotics do not only target the microbes for which they are intended but many others as well, in all sites around the body. Even antibiotics that are more specifically targeted to certain strains will still cause some other destruction; that is their nature. Due to this mechanism of action, taking antibiotics can affect the amount and type of microflora in the gut, both beneficial and pathogenic.

These changes in gut flora can cause a range of symptoms, from antibiotic-associated diarrhea and other gastrointestinal issues, like cramping and nausea, to altering the balance of the commensal microbes and mycology (fungal species) that should be living in harmony with us. This can cause the fungal species to proliferate and lead to a range of symptoms, vaginal thrush being one of them.

## Q: What steps can be taken to help protect the gut during antibiotic treatment?

**Kate:** This alteration in the intestinal microbiome and other microbiome sites can cause changes to the intestinal epithelium and its protective mucosal lining. Ensuring that some repair work is done to the epithelium through a diet with polyphenols and phytonutrients, as well as replenishing the beneficial bacteria with probiotics, can provide some support to the gut microbiome during antibiotic treatment.

Probiotics are generally transitory, but as they pass through they '[communicate](#)' to the other bacteria via signaling pathways and improve colonization of those commensal bacteria that we want to thrive.'<sup>2</sup>

**"We are unsure exactly how the bacteria translocate, but [oral supplementation of probiotics](#) has been seen to colonize areas other than the gut.'<sup>3</sup> Supplementing with probiotics that support vaginal and bladder health can also be supportive."**

Prebiotics that feed the beneficial bacteria are also important. Focusing on a mostly plant-based diet with some fish, eggs, and meat is a great place to start, and ensuring that there is a lot of color and variety each and every day is an important part of healing and nurturing.

Fermented foods are another way to add beneficial microbes to your diet so long as you do not have a histamine issue, which can be the case for some people with bladder issues. As always there is no one-size-fits-all, it's all about the individual.

## Q: Can you share evidence of digestive disorders, such as leaky gut, being linked to UTIs?

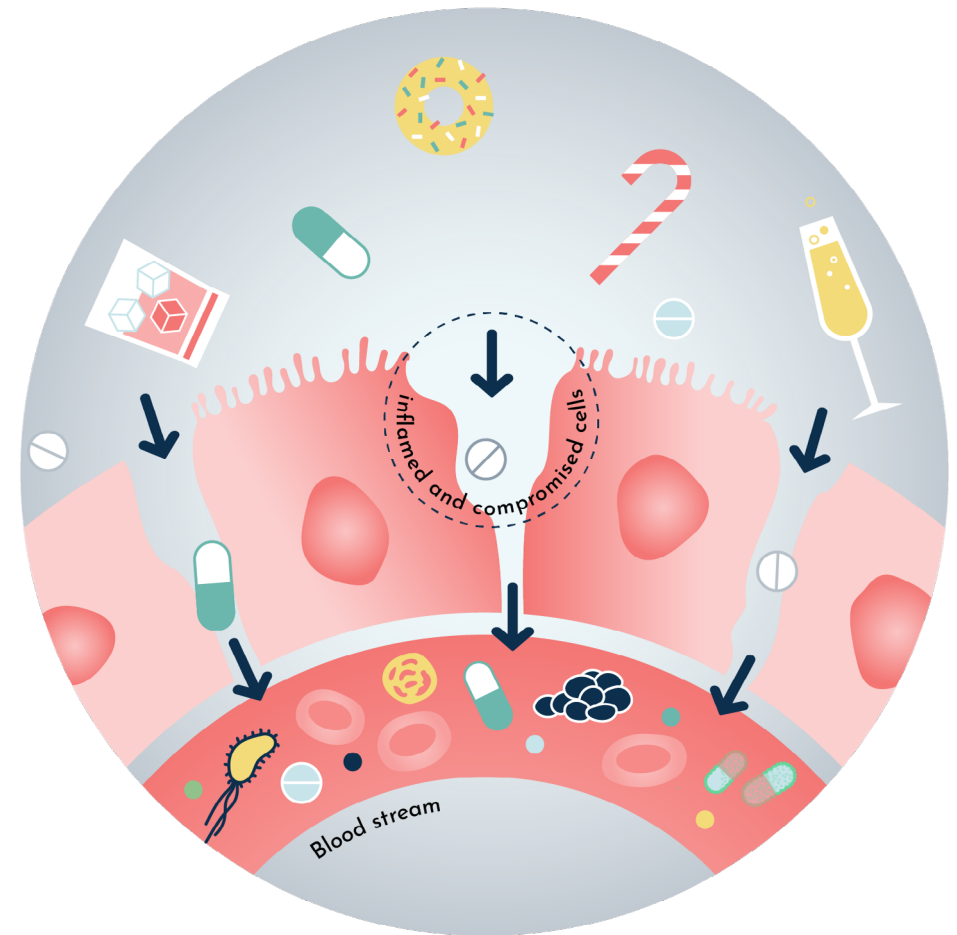
**Kate:** Firstly, let's change that term 'leaky gut'. Our gut acts as a barrier between the outside world and the inside of our body. It is meant to be semi-permeable to allow water and other molecules like minerals and vitamins through. Often, these molecules have transport carriers that allow them to pass through the gut wall, so it is a tightly run process.

However, when the lining of the small intestine becomes damaged or inflamed, it can allow toxic particles through to the bloodstream, where they are not meant to be. This process of intestinal lining damage and eventual bloodstream toxicity occurs surprisingly easily with our modern diet and stressful lives.

It is this loss of barrier function that means these foreign substances cause an inflammatory response that can be felt throughout the body. So it's not 'leaking', but there can be permeability issues with the tight junctions of the intestinal wall. Therefore, we call it 'intestinal permeability' which is a more scientific term.

There doesn't need to be gut permeability or even an infection of the digestive tract for there to be a UTI. If there is enough dysbiosis (imbalance of bacteria, fungi etc) in the gut then this can have a domino effect and impact the gut terrain. This imbalance of certain gut microbes that can translocate to the vagina and/or bladder is often linked with UTIs, e.g. *E.coli*.

*E. Coli* is meant to be part of the commensal bacteria of the gut; it is only when there is an imbalance that it might start to become part of the problem. However, it is not just the microbe that is at fault here. We must look much further to the root cause and the immune system: Why is *E. coli* being allowed to translocate? Why is there an imbalance in the first place?



There should be an array of host defenses to keep these microbes where they should be. When those host defenses are not optimal is when we can see this movement of invading bacteria.<sup>4</sup>

**“Stress, hormones, and trauma can all affect microbiome sites throughout the body, so making sure issues like these are well balanced and addressed is the starting point for all healing.”**

## Q: How can we heal the bladder lining?

**Kate:** There is also some research into the [loss of barrier function of the bladder wall](#).<sup>5</sup> 'Bladder permeability' (you definitely don't want to be calling it leaky bladder!) may well be part of the picture when we are looking at RUTIs and other bladder conditions like Interstitial Cystitis (IC).

When working with clients, I often think about the urothelium (lining of the bladder), and the bladder GAG layer (glycosaminoglycans). I try to ensure that we are doing any repair work to that and any other mucous membranes throughout the body, especially if someone reports other areas of dryness. If someone has dry eyes, hands, or vagina, I start thinking about what is going on with the epithelial lining throughout the body.

## Q: Can you explain the impact of oral and vaginal probiotics in relation to UTI prevention?

**Kate:** Many of the microbes that cause UTIs translocate from the bowel. Therefore, ensuring optimal gut health is always the first place to start.

Oral probiotics will have an effect on many microbiome sites throughout the body, whereas using a probiotic as a vaginal pessary can provide a more direct effect if that is what is needed in the vaginal space. This is why I like to use functional testing of the vaginal microbiome that uses PCR DNA testing rather than culturing. This provides a truer picture of what is going on before adding in probiotics. In a few cases, probiotics could worsen the situation.

The microbiome of the bladder and vagina have some overlaps. Lactobacilli are the dominant species in both spaces, and although there are similarities to some strains of bacteria in the gut, that is where the similarities stop.

In the vagina we want a low level of diversity mostly [dominated by lactobacilli strains](#). The most frequently isolated species in the vagina are *Lactobacillus crispatus*, *Lactobacillus gasseri*, *Lactobacillus jensenii* and *Lactobacillus iners*.<sup>6</sup>

The bladder microbiome is more similar to the vagina than the gut microbiome in that there needs to be low diversity, but it is still independent of the other microbiomes, with its own unique species. It is not a sterile environment as was originally thought, so [there are meant to be bacteria present](#).<sup>7</sup>

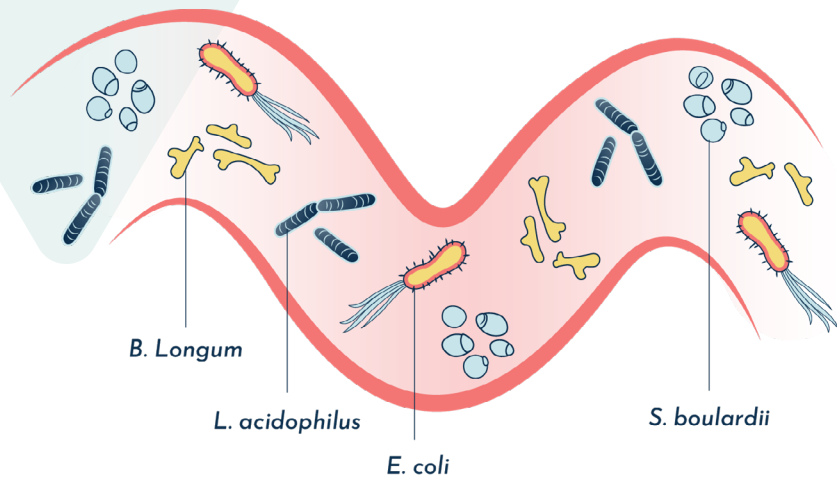
**“The vagina, its microbiome, and immune defenses should be the gatekeeper that prevents anything from traveling further forward to the urethra and on to the bladder.”**

If there is an overgrowth of *Lactobacillus crispatus* in the vagina with nothing else detected, there might be [cytolytic vaginosis \(CV\)](#).<sup>8</sup> CV can cause bladder pain symptoms as well due to the epithelial tissue damage. It's a fine balance, and testing helps us to identify where we should be working and why.

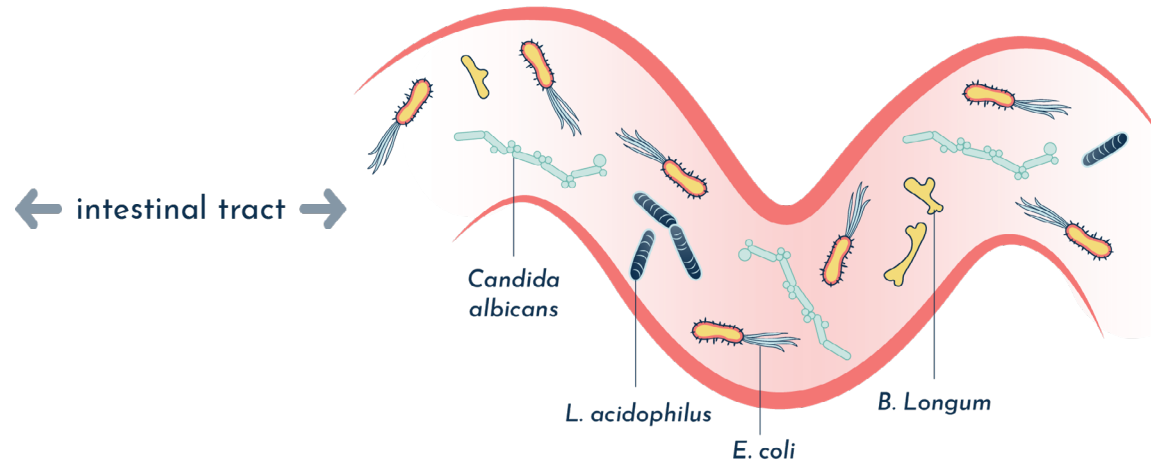
I personally like to use two probiotic products from a company called Invivo, who I work closely with. They have one probiotic that is aimed at the urinary tract and another that is aimed at the vaginal space. These both contain lactobacilli strains.

There are theories that candida also influences the bladder microbiome and UTI symptoms, but that is still a theory. However, I have seen in clinical practice that when we deal with candida in a balanced and natural way the bladder symptoms often decrease.

## HEALTHY GUT MICROBIOME



## GUT DYSBIOSIS



### Q: Could a vaginal infection such as yeast or bacterial vaginosis (BV) cause or contribute to a UTI?

**Kate:** "Women with BV have higher rates of UTI than those with a "healthy" [Lactobacillus-dominated vaginal microbiota](#)." Again, we come back to a healthy microbiome, healthy immune system and balanced hormones. Bacterial Vaginosis (BV) just means dysbiosis. There is an imbalance of bacteria; often it is accompanied by *Gardnerella Vaginosis* followed by *Prevotella* and others, but not always. A random selection of high amounts of other bacteria can also occur.

We want to see healthy levels of lactobacilli strains in the vagina, and when these are not robust we might see [other bacteria increase](#) in amounts and start to proliferate and dominate the space.<sup>10</sup> These bacteria might then translocate to the urethra and bladder, causing a disruption to the homeostasis (stable state) of the commensal bacteria in the bladder. As there is a strong relationship between lactobacilli strains and estrogen, working with hormones is also important in this picture.

If there is a yeast infection, this again implies an imbalance of both bacteria and the immune system in the vaginal space, which will always have an effect on the bladder.

**"Our immune system is systemic. If it is out of balance in one area, that in turn will have an effect throughout the body."**

I have some clients who say they have thrush. When we test (using PCR DNA testing for the vaginal space) we find that there is actually ureaplasma or BV causing similar symptoms to that of yeast. If there is fungal overgrowth, I always look at glycemic load in the diet, blood sugar regulation, and hormonal balance. I then crowd out the fungi with beneficial bacterial strains.

Some candida species can be more difficult to get rid of than others, so working with someone who can determine exactly what is occurring and then support you in your journey is important.

## Q: Will having a healthy bladder biome make me less susceptible to UTIs in the future?

**Kate:** Urinary tract infections are often a combination of stressors, but the most important factors to consider in preventing UTIs are a healthy immune system, a healthy microbiome, a healthy diet, and low levels of stress.

If we have proper diversification of bacteria in all the right places (bladder, vagina, gut, oral cavity, lungs, etc.) we are more likely to be able to keep balance or 'homeostasis'. If there are bacteria that translocate and could potentially become pathogenic, our healthy commensals will be taking up space so that pathogenic bacteria cannot proliferate and grow in number.

Think of it like a garden, if we take out all the weeds but do not add in lots of beautiful plants, the weeds will just come back as there is space to fill. Some of these weeds are actually beneficial at low amounts and are needed for a balanced terrain, but if the weeds over grow then they can cause problems simply due to the excessive amount.

Along with a healthy microbiome comes a healthy immune system. We cannot have one without the other. Our bodies work in synergy and we must not look at it from a reductionist viewpoint of only one thing keeping us healthy. It takes a whole-body approach to maintain health and reduce susceptibility to any form of illness or disease. This is where nutritional therapy works well, as we never look at just one area but rather the whole body systemically.

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