Your body isn’t just made of flesh and bone – it’s also home to an enormous amount of bacteria. Around 500 species of microorganisms call your body home and make up a massive 95 per cent of the cells in and on your body. So, you could say that your body is actually more bacterial than human!

Microbes colonise your mouth, nose, reproductive system and most of all, your digestive system. Most of these mutually-beneficial organisms are essential to keep you alive and healthy. And, they have many functions – from breaking down otherwise indigestible carbohydrates (they help your body release around 10 per cent of your total energy in fact!), to helping your body produce vitamins B and K and boosting mineral absorption. These miniature microbial bouncers also help to keep potentially harmful bacteria (pathogens) out so they’re an important part of your immune system.

Considering a probiotic?

Studies are revealing the very many ways that probiotics can boost health plus how 21st century living is depleting natural probiotics.

Your probiotic population can become imbalanced by:

• Age – number of probiotics naturally decline with age
• Stress
• Illness
• Poor diet (lack of fibre, too many processed foods, too much fat, too much alcohol)
• Antibiotic use

All of these allow pathogens to take over. Short term, the result can be flatulence, bloating and cramps. Long-term, the result can be more serious such as inflammatory bowel conditions. Without enough beneficial bacteria, your immune system can’t work properly. So, for many reasons, it pays to look after your gut bacteria.

IN GREEK, PROBIOTIC MEANS ‘FOR LIFE’

and we humans have known about the benefits for thousands of years. Cultured milk products, (yogurt and kefir), tofu, soy milk, miso, tempeh and sauerkraut are good natural sources of probiotics and deliver beneficial bacteria directly into your intestines helping to boost your overall probiotic count.
Prebiotics are non-digestible carbohydrates (which feed beneficial bacteria to help them survive and thrive). Prebiotics are relatively stable and, unlike probiotics, can be relied on to arrive relatively unchanged in the gut despite the presence of digestive enzymes.

Prebiotic foods include bananas, oats, leeks, asparagus, tomatoes, artichokes, garlic and onions. Eating foods that contain prebiotics is a quick and effective way to boost the health of your micro flora. Taking probiotics has longer-term beneficial effect.

**Eczema**
Researchers from the Norwegian University of Science and Technology (NTNU) found that where there was a family history of allergy or eczema, women who took a probiotic supplement in the last month of pregnancy and the first few months of breastfeeding saw a 40 per cent reduction in the incidence of eczema in children up to age two. As well as genetic predisposition, children are prone to picking up infections. Bacteria, such as lactobacilli species and bifidobacteria, help to boost immunity and may help to boost children’s immune function – check with your doctor.

**Diarrhoea**
Your intestine (gut) needs to be porous to allow nutrients to be absorbed into your body. But, because of this, it’s also vulnerable to invasion. Disease-producing bacteria such as *Clostridium difficile* (C. diff for short) produce toxins that can cause unwelcome diarrhoea, especially in hospital settings. Being elderly and/or frail increases the risk. Infection may mean that your doctor prescribes antibiotics and these don’t discriminate – broad spectrum antibiotics kill all bacteria in the intestine including the beneficial kinds.

Research presented at the American College of Gastroenterology’s (ACG) meeting showed taking probiotics before beginning a course of antibiotics cut the risk of developing antibiotic-associated diarrhoea by about 60 per cent. Dr Rabin Rahmani, a gastroenterologist from New York reviewed 22 studies involving more than 3,000 patients. He found that taking probiotics for an average of 1.5 weeks helped to restore the balance of beneficial bacteria to the intestinal tract.

**Lactose intolerance**
Unpleasant gut symptoms after consuming varying amounts of lactose (the simple sugar found in milk) can be a sign of lactose intolerance. It is easier to tolerate lactose in yogurt compared with the same amount of lactose in milk because bacteria produce the enzyme lactase (which digests lactose). This makes lactose easier to digest. So, probiotic with lactobacillus bacteria may help ease symptoms of lactose intolerance.

**Other gut disorders**
Small amounts of short-term inflammation help to fight infection. But constantly high levels of it can cause swelling, pain and damage to tissues. Ongoing inflammation is associated with conditions such as irritable bowel syndrome (IBS) and it stresses the gut lining making it more prone to damage. Beneficial bacteria are affected by stress, too, reducing their numbers.

Restoring friendly bacteria not only helps reduce the chances of infection but also inflammation. They do this by blocking disease-causing bacteria from sticking to the intestinal lining and also by obstructing chemicals involved in inflammation.

The UK’s National Institute for Health and Clinical Excellence (NICE) recommends that if you want to try probiotics, take them at the recommended dose for a minimum of four weeks.

**Overdoing alcohol**
Too much alcohol alters gut bacteria and one sign of a stressed liver (due to overindulgence in alcohol) is raised liver enzymes. Probiotics help to restore healthy intestinal flora.

**Constipation**
Having healthy gut flora increases the water content of waste matter. This enhances muscular contractions in the gut making it easier for the body to expel waste and reducing the time that waste stays in contact with the cells of the large intestine.
Probiotic and Gut Feeling?

Eating yogurt that contains probiotic could affect activity in the emotional part of the brain.

The brain and the gut are connected by the long, branching vagus nerve, which transmits information from the gut and other visceral organs to the brain. Plus, there are nerve cells in the gut as well as in the brain. It seems that the presence of bacteria in the gut may be able to send signals to the brain that can change over time depending on diet and the gut flora. It’s already established that the brain sends signals to the gut and that’s why stress and emotions are linked – think of the term gut feeling or butterflies in the stomach! The new study from UCLA has shown that signals travel the opposite way, too.

Dr Kirsten Tillisch of UCLA’s School of Medicine, who led the study, said: ‘Time and time again we hear from patients that they never felt depressed or anxious until they started experiencing problems with their gut. Our study shows that the gut-brain connection is a two-way street.’

The bacteria in your digestive system are so small that hundreds could fit on a full stop.

There are more bacteria in your large intestine than there are humans on earth.

Digestion is completed in the small intestine.

Bacteria in the ascending colon break down carbohydrates (by fermenting sugars and starches). The byproducts exit as wind...

Water is reabsorbed in the colon leaving only a little water, waste products and fibrous matter.

The gut has been described as a second brain – it contains up to 100 million neurons – as many as the spinal cord says Michael Gershon, professor of anatomy and cell biology at Columbia University, New York.

Serotonin is a chemical that triggers feelings of satiety and happiness. Your brain has two to three per cent of it but a massive 90 to 95 per cent of your serotonin lies in the gut. (Some experts suggest that with such a strong gut-emotion connection, troubles with your gut may also be linked with negative emotions and even poor sleep.)
So what makes a good probiotic?

According to scientists at London’s Royal Free hospital, a good probiotic needs to:

1. Reach the gut without being killed off by strong stomach acids along the way
2. Be safe for human consumption
3. Have clinically proven health benefits demonstrated by scientific trials
4. Have the contents clearly defined
5. Be clearly labelled

USANA’S Probiotic ticks all the boxes!

USANA Probiotic uses patented strains Lactobacillus rhamnosus LGG® and Bifidobacterium BB-12® in a unique 50/50 mixture. These two strains of probiotic bacteria have been clinically proven to promote a natural balance of beneficial micro flora in the gut.

Tests have proven that the species survive through the acidic stomach environment and are able to reach the intestines and do their beneficial work in the intestine.

Verified to supply 12 billion Colony Forming Units (CFU) of viable bacteria – a level shown to be effective in clinical studies.

USANA’s Probiotic advanced delivery system guarantees the bacteria will remain effective for at least 18 months when stored at room temperature much longer than most yoghurt type products available. Great if you don’t consume cow’s milk products – use straight out of the packet or mix with any cold food or drink.

USANA Probiotic is dairy- and sugar-free.

Regularly taking USANA Probiotic plus Fibergy® Plus (which acts as a prebiotic for your natural, beneficial bacteria to flourish) can help your digestive system work efficiently, and help maintain gut health.