

Probiotics

Probiotics are microorganisms such as bacteria or yeast that improve health. They are available in foods and supplements. Taking a live bacteria or yeast may seem counterproductive especially when you consider we take antibiotics to kill bacteria. However, the truth is that our digestive tract is home to more than 500 different beneficial bacterial species such as lactobacillus and bifidobacterium. They enhance the protective barrier of the digestive tract and assist in breaking down food. They help produce vitamin k which helps blood clot and has a role in healthy bones. These “good bacteria” help maintain a healthy immune system. There has been a great increase in public awareness in probiotics in recent years with the launch of probiotic yogurts such as Actimel® and Activia® and more evidence of their benefits. The World Health Organisation describe probiotics as “live microorganisms which when administered in adequate amounts confer a health benefit on the host”

Modern living

In modern Ireland, we are subject to increased stress, rushed meals, less fresh food, little time for exercise and relaxation, rushing from A to B, overuse of antibiotics and other medications. It is little wonder that over a third of the population experience digestive discomfort, varying from bloating and constipation to diarrhoea, as well as other complaints like tension headaches and joint and muscle pains. While probiotics is not the cure for all these problems, more and more evidence is showing that probiotics can alleviate these symptoms.

A number of medical, diet, and lifestyle factors are believed to disturb the balance in the digestive tract. Factors which reduce natural bacteria include insufficient dietary fibre, courses of antibiotic, feeding infants with formula instead of breast feeding and ingestion of environmental toxins such as pesticides on fruit and chlorine in drinking water.

If your natural bacteria is reduced, unhealthy bacteria and yeast may flourish, which is thought to increase the likelihood of conditions such as diarrhoea due to bacteria and vaginal thrush due to fungal infections.

Ilya Ilyich Metchnikov is known as the “father of probiotics”. He found that rural populations in Bulgaria and Russia who lived largely on milk fermented by lactic-acid bacteria lived exceptionally longer than other parts of these counties who didn’t consume the same fermented milk. He attributed this to the fall in gastric pH from such bacteria, which reduced digestive complaints amongst other benefits.

Sources of Probiotics

Probiotics can also be found in cultured dairy products such as natural yogurt. They are available in capsule and liquid forms in pharmacies and health food shops. When we take probiotics, they colonise the intestines and other parts of the body and can sustain themselves unless they are destroyed by antibiotics or other factors. There is no recommended daily intake of probiotics.

Benefits of probiotics

Counteracting side-effects of antibiotics

Antibiotics kill “bad” bacteria in the digestive tract along with “good” bacteria. Many people use probiotics to offset side effects from antibiotics like gas, cramping, or diarrhoea.

In my work as a pharmacist, I encounter many people who previously suffered distressing symptoms from antibiotics including nausea, cramps, bloatedness, diarrhoea and thrush; however many obtain complete relief from these symptoms by taking probiotics during and after their antibiotic course.

According to Dr Dom Colbert, a co-founder of the Irish Society of Travel Medicine, diarrhoea occurs in about 20 per cent of people on antibiotics. This is due to a 60 per cent reduction in beneficial bacteria by the antibiotic. Dr Colbert stated in a 2010 article in the Irish Medical Times that “despite limited and often inconsistent data, two large reviews taken together suggest that probiotics reduce antibiotic-associated diarrhoea by 60 per cent”

The probiotic should be taken about 3 hours after taking the antibiotic for maximum benefit. Whelehans own brand Acidophilus probiotic formula contains 2 billion lactic bacteria from 3 strains. Whelehans own brand costs €5.99 per 30 pack, this is better value than leading brands and if you decide to take it on an ongoing basis, our 90 pack is better value.

Over use of antibiotics

I do not want to mention antibiotics without noting that antibiotics are grossly overused in Ireland. This is a major cause of the rise of resistant strains of bacteria including superbugs such as MRSA and previously eradicated tuberculosis. Antibiotics should only be prescribed for confirmed and severe bacterial infections. They should not be prescribed for viral infections which are the cause of over 80% of colds and flus. According to a 2009 report on health care associated infection by the Royal College of Physicians of Ireland, Ireland is one of only three countries in Ireland where antibiotic use is increasing. Unlike other countries, there is no clear policy to limit antibiotic prescribing to when it is actually needed. This has resulted in Ireland having higher antibiotic resistance than other countries and is a ticking time bomb.

Antibiotics for long term preventative use.

Despite, what I said about overuse of antibiotics, many people must take long term low dose preventative antibiotics for conditions like acne, recurrent urinary tract infections and cystic fibrosis. The good news for these people is that after about three weeks of taking an antibiotic, the body's own “good” bacteria become immune to the antibiotic and replenish themselves to previous levels. However, the general consensus is that anyone taking a long term antibiotic will benefit from a regular probiotic supplement.

Infectious Diarrhoea

Some probiotics have been shown to be beneficial in preventing and treating various forms of gastroenteritis. Research published by National Centre for Infectious Diseases in the United States in 2003 shows that breast milk contains a natural sugar called oligosaccharides.

This natural sugar in breast milk promotes the growth of “protective” bacteria in the digestive tract of infants called lactobacilli and bifidobacteria. This is seen as the reason infants you are breast fed suffer less diarrhoea than those feed on formula feed. Research published in the Cochrane Medical Journal in January 2010 concluded that probiotics reduce both the duration of diarrhoea and the frequency of bouts of diarrhoea. In Whelehans, we find that Protexin Restore[®], a probiotic formulation especially designed for infants and children is very effective for quickly relieving diarrhoea in children. It is the only over the counter product our pharmacists recommend for children's diarrhoea apart from rehydration sachets. It is a sachet that can be added to food, water or juice. Please note that if diarrhoea lasts for longer than 24 hours in children they must see their doctor in case of dehydration. Similarly, Whelehans Acidophilus probiotic formula can prevent and treat diarrhoea in adults.

Flatulence

Probiotics such as acidophilus are thought to reduce persistent flatulence when caused by an imbalance of natural digestive bacteria. They do this by promoting the natural fermentation process in the digestive tract.

Easing lactose intolerance

Probiotics may ease symptoms of lactose intolerance. This is a condition in which the digestive tract lacks the enzyme needed to digest lactose, the major sugar in milk, and which also causes gastrointestinal symptoms. Symptoms of lactose intolerance which may be relieved by probiotics include diarrhoea, stomach cramps and flatulence. Probiotics help reduce lactose by converting it to lactic acid.

Helicobacter Pylori (H. Pylori)

H. Pylori are bacteria that are found in the digestive tract of about 50% of the population. It is a major cause of stomach ulcers which thankfully due to the introduction of "triple therapy" in the last 20 years can be easily treated by your doctor. However, results from a 2003 study in the International Journal of antimicrobial agents showed that probiotics can prevent and help treat H pylori infections. However, more research into their role in prevention and treatment of stomach ulcers is needed.

Immune System

A 2010 study funded by the United States Public Health Service found evidence that antibiotics reduce the immune system and that probiotics enhance the immune system. While research is ongoing, probiotics enhancement of immunity is thought to be linked to the stimulation of Immunoglobulin A, which is a critical antibody produced by the body to enhance immunity to infection and disease. It was discovered in 1997, a link between a "Toll like receptors" in the digestive tract and digestive bacteria in enhancing our immune system.

Irritable bowel Syndrome (IBS) and colitis

Probiotics have shown promising results in the relief of IBS and colitis; however more research is needed before their effectiveness can be confirmed.

Older People

Some natural bacteria reduce with age, so evidence suggest that older people encountering digestive problems like constipation will benefit more from probiotics.

Other possible benefits

More evidence is needed on the effectiveness of probiotics in such conditions as colon cancer, constipation, heart disease risk factors, and Crohn's disease. In relation to cancer, there is evidence that probiotics may suppress the growth of bacteria that convert procarcinogens into carcinogens, thereby reducing the amount of carcinogens in the intestines. This is a very exiting area of research.

Research in Ireland

According to a report in the Irish Times on April 25th 2011, University College Cork is number two in world ranking for research work related to probiotics. This ranking was by ratings agency Thomson Reuters Science Watch. The research is done in the university's Alimentary Pharmabiotic Centre. Professor Fergus Shanahan from UCC said that the work is part of a much bigger theme of the study of bacterial life in the digestive tract. Already, research from UCC on probiotics may have proven successful in treating hospital superbugs. In 2007, UCC research showed that milk fermented with lactobacillus prevented salmonella infection in pigs.

Side effects

Side effects of probiotics are generally non-existent. The only reported side effects are rare abdominal discomfort and gas.

Potential Drug Interactions

Interactions are rare but they should be used in caution with immunosuppressant medication, for example medication used to prevent rejection of organs in transplant patients. Some of the yogurt style probiotic drinks in supermarkets are high in sugar so should be used in caution in diabetics. Probiotic capsules like Whelehans own brand Acidophilus capsules is a sugar free option for diabetics.

Dietician Service

There can be a long waiting list for dieticians nowadays. Therefore, Whelehans have introduced a new dietician service. This service is in conjunction with Pfizer. Our dietician service can advise on any dietary problem in adults and children (eg) food intolerance, coeliac disease, fussy eating in children, inability to lose weight or gain weight. Bookings are by appointment only. This service is free.

Other health services now in store include our heart screening service which takes place every Wednesday morning; it only takes a few minutes and includes a check for blood pressure, cholesterol, blood glucose (diabetes) and body mass index. Results are instant. You will get a printout of your results on the day. Our Foot Clinic with chiropodist, James Pedley, takes place every Thursday in our private consultation room. Our free hearing test service with our audiologist, Tony Battersea, takes place every second Monday. Call us at 04493 34591 to book any of our screening services or clinics.

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