The foods we have been discussing in this series may also prevent various cancers because they may contain anti-angiogenic factors. Primary tumour growth (or growth of metastatic deposits, causing cancer recurrence) depends on chemical signals the tumour cells send out to stimulate new blood vessel formation (angiogenesis) which feeds it. Many fruits, vegetables and whole-grains have anti-angiogenic factors, and this is one mechanism by which these foods may help prevent cancer development or its progression or recurrence. The British Health Service recently claimed that accumulated scientific evidence points that increased consumption of fruits, vegetables and whole-grains, less consumption of red meats and alcohol, less smoking, and more regular exercise, could decrease cancer incidence by almost 50 percent.

Spices not only enhance the taste of foods, but can also help you feel better. They contain many protective phytonutrients, which may inhibit tumour formation and progression. One of the most exciting is turmeric, an Indian spice providing the yellow colour in curries. It is said to have anti-inflammatory and anti-oxidant properties, and may help prevent or even treat Alzheimer’s disease. The prevalence of Alzheimer’s disease is much lower in India than in the West, affecting only 1 percent of over-65-year-olds in some Indian villages. There have been claims that curcumin (one of the most active substances in turmeric) may reduce Alzheimer’s type plaques by 50 percent, and that rats given turmeric also perform better in maze-based memory tests. Turmeric also enhances immune function, improves digestion and its anti-inflammatory properties have been claimed to be comparable to corticosteroids.

Ginger is another spice whose health benefits, particularly its gastrointestinal distress-reducing properties, have been recognised for centuries. Besides claimed anti-oxidant and anti-inflammatory effects, ginger is very effective in preventing the symptoms of motion sickness, especially seasickness, and is very useful in reducing the nausea and vomiting of pregnancy. Its potent anti-inflammatory substances (gingerols) help reduce pain and improve function in osteoarthritis and rheumatoid arthritis.

Sage, oregano, thyme, rosemary, fennel, turmeric, caraway, anise, coriander, cumin and tarragon are claimed to have some cancer-preventing activity. Some of them contain terpenoids that may prevent or slow tumour progression. Cinnamon, garlic, sage, nutmeg and clove may inhibit bacterial growth and help prevent cooked food from spoiling. Paprika and saffron may boost immunity. Chili peppers may help block tumour formation. Rosemary contains substances claimed to stimulate immunity, increasing brain blood flow and mental concentration, improving digestion, and contains anti-inflammatory compounds claimed to reducing the severity of asthma attacks.

Probiotics are health-enhancing bacteria found mainly in the mouth, bowels and vagina. They live in a complex ecological equilibrium with other bacteria, helping keep the harmful ones in check, and some produce vitamin K and B vitamins. They may aid digestion, improve nutrient absorption, help reduce carcinogen formation, and enhance immune function.

Many forces can throw off this delicate balance, such as ageing, alcohol, poor diet, stress, chronic illness and, especially so, antibiotics. When the gut flora balance is disrupted, some harmful bacteria grow too numerous causing diarrhoea or worse. Probiotics such as Lactobacillus reduce the risk of diarrhoea during antibiotic use as well as shorten the course of infectious diarrhoea after such antibiotic use.

The vagina, like the gut, contains bacteria in a dynamic equilibrium, and antibiotics, spermicides, contraceptive hormones and the menopause may disrupt this internal ecology resulting in bacterial vaginosis. Since dairy products are a common source of probiotics, regular consumption of yogurt (with or without live Lactobacillus) is said to significantly reduce the risk of bacterial vaginosis.

Probiotics may be helpful in irritable bowel syndrome, Crohn’s disease and ulcerative colitis, lessening recurrences. They also help prevent allergic reactions, such as reducing the risk of eczema in children. Neonates’ digestive tracts contain only small populations of Bifidobacterium, but breast milk contains these bacteria and breast-feeding raises newborns’ good bacterial gut flora within a few days. This is one reason why breast-feeding reduces risk of infectious diarrhoea.

The easiest way to incorporate probiotic bacteria into one’s life is to eat a few servings of live-culture yogurt a week. Probiotic supplements are another option, but they vary in quality and potency, are largely unregulated, and there is likely more variability in numbers and type of probiotic bacteria in them than in foods.