

# Education News



ISSUE 10 | FROM THE NUTRIGOLD NUTRITIONAL UPDATE SERVICE

## CALMING AND CLEANSING THE COLON

### EFFECTIVE NATURAL RELIEF FOR CONSTIPATION, IBS AND OTHER BOWEL CONDITIONS

We have all experienced digestive problems at one time or another, be it constipation, nervous stomach, indigestion or diarrhoea. For some, such problems are rare, while for too many it's a frequent or continual pattern of discomfort and distress. Orthodox medicine offers a range of options, often with unwanted side effects, while natural approaches to digestive issues can be just as effective, if not more so.

Even if we are not aware of congestion or inflammation in the colon, most of us could do with some extra support. It is the first part of us that develops in the womb, our primary defence against illness, and the foundation of our health. Colon cleanses have been a popular way to keep healthy and vital for thousands of years, and it makes sense to support this fundamental aspect of our well-being.



## CONSTIPATION

Many consider constipation to be at the root of all disease. Every illness and condition that we experience can be tracked down to a build-up of mucus and toxicity in the body due to a compromised system of elimination from the bowel.

Some people absolutely know that they get constipated: perhaps you have to wait in discomfort for several days before finally producing small, dark "rabbit droppings". For others it's not so obvious. Perhaps it's every other day, and stools are clumped together like clusters of grapes. Or maybe you go regularly every day, but things are a little on the sluggish side, whether you are aware of it or not. Ideally we need to be emptying our bowels 2-3 times a day with an easy, smooth, mid-brown motion. How many of you can honestly put your hands up to that?

Stools are formed in the colon, or large intestine, which is the final part of our digestive tract before the rectum and anus, where they come out. Our colon is primarily responsible for absorbing water and eliminating waste, alongside other important roles filled by our bowel flora. If we are dehydrated or stressed, then the stools are often drier and harder to eliminate. And if our bowel movements are not easy, smooth and complete, then there is a good chance that putrefying waste and toxins are building up in our digestive system.<sup>1</sup>

Many naturopaths also describe mucoid plaque, a build-up of slimy mucins produced by our mucous membranes, to lubricate and protect the inner surfaces of such areas as our colon, lungs and mouth. It is the mucins in our mouth for example, that can become dental plaque, and many consider a similar process to be happening in the colon. The colon has been shown to produce more mucin in response to stress<sup>2</sup>, and colonic mucin has been shown to vary in composition in people with various diseases of the bowel.<sup>3</sup>



## IBS

Constipation, sometimes alternating with diarrhoea or loose stools, is also a major feature of Irritable Bowel Syndrome (IBS). Between 20-25% of people report symptoms of IBS at some point in their lives, and 10-15% receive a diagnosis. With IBS, changes in stool patterns can be accompanied by nausea, wind, heartburn, headaches, crippling stomach cramps and even depression. There is also often mucous (slime) in the stools caused by over irritation of the mucosal wall that lines the gut.

While diarrhoea can seem the opposite of constipation, actually it's usually a more extreme form. The more dehydrated or stressed we are, the more of a toxic load we can build up in the colon, as described above, which can affect the health of the mucous membrane lining the colon as well as the bacterial balance there. Chronic diarrhoea often occurs when the mucous is irritated, whether by bacterial imbalance, over secretion of bile or other toxic conditions, and contractions are stimulated which force an evacuation before water has been absorbed from the stools.

This irritation of the mucous membrane would also account for the increased production of mucous, which is sometimes present in the stools of people with IBS. And whether you are experiencing constipation, IBS or other digestive conditions, the environment in the large intestine is mirrored in and ripples out to the rest of the digestive system, and in fact the rest of the body.



## CONVENTIONAL TREATMENT

Conventional treatment gives laxatives for constipation – which irritate the nerve endings in the gut to cause them to contract, and usually do little to help hydrate or recondition the bowel. Recommendations for IBS often begin with high fibre diets and supplements, but studies show mixed results for this approach, with fibre sometimes worsening the symptoms.<sup>4</sup>

Prescriptions then vary from anti-spasmodics to anti-depressants – not to deal with depression (although depression and IBS are sometimes linked), but because the gut is becoming increasingly recognised as part of the nervous system, and has been shown to respond to the same kind of medication.

## NATURAL APPROACH

A more natural approach would seek to soothe, hydrate and nourish the colon, ensuring it has everything it needs to stay healthy, absorb the water and water-soluble nutrients we need, and eliminate what we don't need. We can focus on calming the nervous system and any inflammation in more natural ways, by removing stress factors (from both lifestyle and diet), keeping hydrated, and adding in foods and nutrients that actively reduce inflammation and calm our nerves. There is also a need to rebalance pH.

Note that when we talk about the body needing to alkalise, we are referring to the cells in the rest of our body; our digestive tract and other mucous membranes need to be slightly acidic. We can use a similar approach to keep both where they need to be, so that an alkalisating diet can help to keep our mucous membranes at the right level of acidity.

## BOWEL FLORA – BALANCING BACTERIA

As well as keeping the nervous system calm and the tissue lining the bowel healthy and soothed, we also need to make sure the bowel flora is in balance. Our bowel flora is the population of bacteria that resides in our bowel. We have on average about 3lb of bacteria in our gut alone, and more wherever we have mucous membranes in the body, such as the lungs, sinuses and cervical canal. The bacteria in our bodies by far outnumber our own cells, so we really need to be accepting them as a fundamental aspect of our make-up, and working to keep them in healthy balance.

There are lots of different types of bacteria within us that need to live in harmony, and the exact balance and profile of these tiny organisms depends very much on environmental factors ranging from pH to mood.

They are often divided into "friendly" bacteria, which require a slightly acidic environment in the mucous membranes such as the gut, and putrefactive or "unfriendly" bacteria, which require an alkaline environment. In fact bacteria will create the conditions they need around them, so that the more beneficial bacteria we have, the better the conditions for them become, which encourages the growth of more beneficial bacteria. Conversely, the more putrefactive bacteria we have, the more alkaline the conditions become, and the more these "bad" bacteria proliferate.

The putrefactive bacteria tend to thrive in conditions of stagnation and go hand in hand with negative emotions as well as a decreased ability to function on a physical level. The beneficial bacteria are those encouraged in fermented foods such as yoghurt, tempeh, sauerkraut and kefir, and they help to form healthy stools, synthesise some of our nutrients, including vitamins K, B1, B2 and B3, and protect us from infection and disease.

We inherit our initial bowel flora profile from our mother, via our transit through the birth canal and from her breast milk. So much depends upon the state of our mother's bacterial balance

at that time, and also on whether we were breastfed or even experienced natural childbirth. From then onwards, diet and stress levels play a crucial role. It's interesting that Weston Price, a dentist who travelled the globe studying the effects of diet, observed that every traditional diet he came across on every continent contained some sort of fermented food which would contribute to the healthy balance of our bowel flora.

## THE PHYSICAL EFFECTS OF STRESS

Most of us are aware of how stress, anxiety and unresolved emotions can affect our digestive system, be it butterflies in the tummy or the runs before a big event. When we blame physical ailments on stress, it can seem quite a vague concept, but there are actual physical responses: for example our adrenals release hormones that send energy and resources to the aspects of us that are most useful in an emergency, such as the muscles needed to run, fight or duck, and the part of our brain involved in instinctive reactions. Energy and resources will be diverted to such areas from places like the digestive system, which will then perform at a limited capacity.

A recent study has shown how stress has a direct effect on the balance of bowel flora in the gut. Stress was seen to decrease the level of Bacteriodes, a species of beneficial bacteria that helps to break down substances such as polysaccharides in the colon. At the same time, stress increased the levels of Clostridium bacteria, a group of pathogenic microbes that include the botulism and tetany bacteria, and the hospital bug C. difficile usually caused by overuse of antibiotics.<sup>5</sup>

The same study linked the resulting imbalance in bowel flora with an increase in the inflammatory cytokines IL-6 and MCP-1. Chief researcher Dr. Bailey explained, "This suggests that not only does stress change the bacteria levels in the gut, but that these alterations can, in turn, impact our immunity."

Further research explores the relationship between stress and digestive disorders such as IBS and general inflammation in the colon. The authors describe how "stress increases the intestinal permeability to large antigenic molecules i.e. molecules venture where they shouldn't."<sup>6</sup> This can lead to an allergic response involving histamine release and loss of mucin, the colon's protective barrier. Stress will cause contraction and inflammation throughout the body, which will restrict the flow of fluids and nutrients and decrease our ability to absorb or eliminate anything smoothly. So even if we are drinking plenty of water, we will still be feeling symptoms of dehydration, and even if we are eating well, we will still be lacking in nutrients.

## DAILY STRESS FACTORS

All types of stress will have this effect: be it a tough day at work, relationship problems, unresolved issues, air and water pollution, electro-magnetic interference from phones, computers, masts etc., or the countless ways in which our diet can present a daily stress. Processed food, genetically modified food, additives, preservatives...



each step that takes us away from an authentically traditional diet makes digestion harder, and so adds a stress to our body.

Stimulants such as caffeine in tea, coffee and cola as well as alcohol and artificial sweeteners trigger the release of further stress hormones, and are also direct irritants to our digestive tract. Highly acidic foods such as tomatoes and oranges can also irritate the bowel, as can high levels of fibre, such as bran, especially when it is dehydrated as are so many of our breakfast cereals. So although we are often told we need to increase levels of fibre to help move things through the gut, we have to make sure that we are not creating irritation and inflammation at the same time.

Various medications are also known to irritate the mucosal lining of the gut and affect the balance of our bowel flora, and the most obvious of these is antibiotics, which aim to suppress bacterial activity. Some painkillers can irritate and damage the mucosa, and the contraceptive pill has been observed to trigger or worsen IBS.

We must also look at how we are eating: the balance of foods, our meal patterns, how appropriate to the season and weather we are eating, and how calm we are when we sit down to eat. Do we munch a sandwich on our way to the next meeting, or do we take time to sit and chew and enjoy our food? In fact, even taking the time to think about what we are about to eat, to smell it and appreciate it, all triggers processes of digestion that smooth the way, such as enzyme production and shifts in pH. Anything we can do to reduce stress can have a long-lasting impact.

## CHEWING YOUR FOOD

If we chew our food for long enough, it starts to break up and is exposed to enzymes that begin the process of chemically digesting our foods. Chewing also triggers activity throughout the digestive tract, to prepare the way for what you've just eaten. Further enzymes are released along the way in the stomach and small intestine, as long as we have the correct nutrients and environmental conditions to do so. Chewing stimulates movement throughout the digestive tract, including the contractions involved in going to the toilet. The muscles in the digestive tract need a good balance of magnesium and calcium to achieve this: calcium contracts muscles, while magnesium relaxes them. The kind of muscle spasms experienced with IBS suggest a lack of magnesium, and in fact the general constriction of chronic constipation will also be linked to low magnesium levels.

## GOOD HYDRATION

To do its job properly, the whole digestive tract needs to be well hydrated. We need fluids to make stomach acid and other digestive secretions, to keep the whole tract moist and to form healthy stools. The body will absorb most of the water in the colon for its many internal needs – if there's not enough water to go around then the colon may end up dehydrated, and constipation and a host of other problems may ensue.

So the most immediate impact we can have on our digestive system is to make sure our diet is as hydrating as possible. This does not



necessarily mean just drinking water, although ensuring we have adequate amounts is a good start. Hydrating foods such as soups, stews and thoroughly soaked wholegrains such as short grain brown rice and barley can be very useful, and most fresh vegetables and salads have a relatively high water content.



Good quality oils in the diet, such as flax oil, coconut oil and butter, can help to hold hydration, while electrolytes, such as magnesium and potassium, can help keep fluids flowing.

Underpinning all of this is the level of stress that we are registering: the less stress, the greater the dynamic flow of fluids and nutrients.

Keeping our menus simple can make a big difference too. Complicated recipes with lots of ingredients and flavours can give the body too much to deal with. Some approaches encourage keeping food groups that require different digestive conditions separate, such as animal proteins and carbohydrates, so that the digestive system can create the perfect conditions for each food type.

## PROBIOTICS AND FERMENTED FOODS

A hydrating and alkalisating diet will also help to populate the bowel with "friendly" bacteria, and we can enhance this with the use of probiotics, prebiotics and further fermented foods.

Probiotics are usually in supplement form, and are made up of some of the beneficial bacteria we need to thrive. It is important to use good quality supplements here, as probiotics can have a very short lifespan, and so the levels indicated on the label may not still be alive when you swallow the capsule. Companies who offer probiotic products with labels that have been approved by the HFMA normally have some form of proven potency.

Probiotic bacteria are also available in fermented foods such as natural yoghurt, miso, sauerkraut, kefir and tempeh. The fermentation process encourages the growth of these beneficial bacteria. You can also obtain many foods now where probiotic bacteria have been added, but check the labels, as there is often a great deal of sugar added as well, which is also food for the putrefactive bacteria.

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## INTRODUCING INULIN, A NATURAL PREBIOTIC

Prebiotics are substances in foods that stimulate the growth of beneficial bacteria, and are useful alongside such probiotic bacteria. Inulin is a prebiotic that can be found in oats and barley, as well as burdock, Jerusalem artichoke and chicory root, plus onions, leeks and garlic. Bowel flora rebalancing prebiotics can also be found in aloe vera and seaweeds.

A number of studies have shown inulin to increase levels of beneficial bacteria in the gut, including one where elderly subjects were given inulin alongside the probiotic bifidobacterium animalis. The results showed not only an improvement in bowel flora, but also an increase in stool frequency, and so a winning combination for those with constipation.

## SUPPORTING YOUR LIVER – THE HUB OF YOUR DIGESTIVE SYSTEM

Chinese medicine attributes the symptoms of IBS and constipation to stagnation of energy in the liver, and in fact blood tests of people with IBS often show elevated liver enzymes. One of the liver's many functions is to produce bile, which is then stored in the gallbladder until needed to be secreted into the intestines to help with fat digestion. This bile will also contain toxins that the liver wants to eliminate from the body. Poor bile flow can lead to constipation as it is one of the things that stimulate the movement of stools through the bowel, and it can also help to soften the stools. Excess bowel flow can stimulate diarrhoea. It is therefore easy to see how IBS symptoms of alternating constipation and diarrhoea can start after an operation to remove the gallbladder, which regulates bile flow.

Keeping the diet simple, hydrated and mindful can make a significant difference here, too. Onions, dandelion root and artichoke can all stimulate bile flow, as can several spices, including turmeric, ginger, garlic, fennel and mint.<sup>7,8</sup> Chinese medicine often recommends the moderate use of sour foods and green foods to support the liver and gallbladder, such as green leafy vegetables and citrus peel.

## COLON CLEANSSES

Colon cleanses of various types have been popular since time began. Enemas were used by ancient Egyptians, Assyrians and Babylonians between 1500-2500BC, by Hippocrates in Greece in around 400BC, and by Chang Chung Chin, China's greatest physician in 196AD. Herbal formulas to cleanse the bowel have been documented for just as long, including a description of herbs used to cleanse the bowel in the writings of the Yellow Emperor in China in 2500BC.

The aim of a good colon cleanse is to rid the bowel of any stagnant, putrefying matter that is interfering with the functions of the bowel and increasing toxicity throughout the body, while reducing inflammation and helping to soothe, hydrate and regulate the colon in the long term. Some bowel cleanses may just focus on the laxative properties of certain substances, but

care should be taken not to just irritate the bowel, but to improve overall conditions. It's important, therefore, to put together a programme that is beneficial to you as an individual, and that looks to nourish as well as to cleanse so that you do not end up depleted.

## DRINK YOUR GREENS

Vegetable juicing can enhance any cleanse, whether fasting on vegetable juices or adding 1 or 2 into the daily routine. Vegetable juices can be very alkalising and provide an impressive array of nutrients. If you were to eat the same amount of vegetables whole, there would be too much fibre for the digestive system to happily deal with. Remember that too much fibre can be as bad, or even worse than not enough fibre for a number of digestive complaints, including IBS.

Fruit juices can contain a similar concentration of helpful nutrients, but also a higher concentration of fruit sugars. In high quantities, fruit sugars can sometimes contribute to an imbalance in bowel flora.



Some vegetable juices are particularly good for colon health. A natural pesticide called falcarinol, found in carrot, celery and parsley, has been found to have anti-tumour effects particularly with colon cancer.<sup>9</sup> Carrot juice is often recommended for constipation, due to its ability to stimulate peristalsis, the wave-like contractions that propel food and waste through the digestive tract.

Beetroot juice and cabbage juice are both rich in glutamine, an amino acid that helps to keep the intestines healthy and functioning.<sup>10</sup> Both are also rich in folate, a B vitamin known to help prevent cancer.<sup>11</sup> Higher folate levels in a study of nurses were shown to be linked to lower incidences of colon cancer.<sup>12</sup>

Cruciferous vegetables, such as cabbage and broccoli, contain glucosinates, a group of compounds which have been suggested to have anti-carcinogenic properties. Chlorophyll-rich foods such as spinach, spirulina and wheatgrass or barleygrass can also be a useful addition to fresh vegetable juices, especially for meat eaters. A Dutch study concluded that "green vegetables may decrease colon cancer risk because chlorophyll prevents the detrimental, cytotoxic and hyperproliferative colonic effects" of the dietary haem in red meat.<sup>13</sup> Spinach juice is also a traditional remedy for constipation.

Finally, coconut water deserves a mention, although technically a fruit. The juice from coconuts is nourishing and healing on so many levels, not least its ability to replenish

electrolytes, especially potassium. Coconut water is rich in vitamins, minerals, amino acids, antioxidants and a wealth of other nutrients, including vitamin C. Vitamin C is necessary to build collagen to form healthy tissue throughout the body, including the colon. Coconut water can also be considered a prebiotic as it helps to maintain a healthy balance of bacteria in the bowel flora.

## DRINKING WATER

During any cleanse, it is vital that you drink appropriate quantities of water to help flush toxins through. Too much water may put a stress on the kidneys, so if you are not used to drinking much water you should build up gradually. Two litres a day is a common recommendation based on what we excrete on an average day balanced against what we can get from foods. Note that coffee, tea, alcohol and even many herbal teas can act as diuretics, and so these may not be counted as part of your daily water intake. In fact, coffee, tea, alcohol and fizzy drinks should be avoided or at least greatly reduced when working to improve conditions in the colon or with any cleanse.

You may also want to consider the quality of the water you are drinking. Tap water varies in quality, with levels of chlorine, fluoride, oestrogen and other chemicals differing from region to region. There are many types of filter available today, all offering differing benefits and levels of purity. You might also want to look at the resultant pH of your drinking water to make sure it is on the alkaline side. Bottled mineral water also varies in mineral content, and the plastic bottles they are usually contained in may leach oestrogens into the water. Mineral water in glass bottles is on offer in some shops and cafés.





## CITRUS PECTIN – A SOLUBLE FIBRE

Soluble fibre forms a gel-like substance in the gut which can help bind to other substances and so help remove them from the gut. Citrus pectin, found in the white pithy bits of citrus fruits, is an example of this. Citrus pectin has also been shown to improve the structure of intestinal mucosa, and so may offer long term benefits to the bowel above and beyond the immediate colon cleanse.<sup>14</sup>

## PSYLLIUM HUSKS – AN INSOLUBLE FORM OF FIBRE

Insoluble fibre holds water very effectively, and increases the bulk on our stools. Grains can be very good for this, particularly rice and barley, and it is the reason why psyllium husks are often used in colon cleanses. The effect of the insoluble fibre in psyllium husks is often likened to a broom sweeping the colon clean as it passes through. In order to have this effect, however, psyllium husks or any insoluble fibre needs to be well hydrated – so either soaked in plenty of water, or taken with plenty of water. An excess of insoluble fibre can be detrimental to the gut, however. While some studies conclude that colon cancer is more common among those with a low fibre diet, several studies have shown a correlation between colon cancer and higher intakes of fibre.<sup>15</sup> Although fibre can help increase the transit of stools, which can be useful for constipation, studies have shown that it does not help the overall symptoms of IBS, and aggravates the symptoms for some IBS sufferers, possibly due to increased fermentation in the gut.<sup>16</sup>

As for eating bran flakes for breakfast, a review of human studies comparing approaches to IBS concluded that bran had no significant positive effect on irritable bowel syndrome.<sup>17</sup>

## LINSEEDS AND SEaweEDS

Linseeds, or flax seeds, are also a useful source of fibre that can help greatly with constipation – the usual recommendation is to soak whole seeds in water overnight, and then to drink the resulting gloopy mix of seeds and

## HOW HELPFUL IS FIBRE?

Fibre is the part of fruit, vegetables, grains, seeds and pulses that we cannot absorb into the body, and so they pass through all the way to the colon, where they are converted into other substances that also cannot enter the body, but eventually get excreted with the stools. There are two types: insoluble and soluble fibre.

jelly. Linseeds, and similarly gloopy seaweeds, are also rich in lignans, which help to soothe irritation throughout the digestive tract, as well as having well explored anti-cancer benefits, in particular for colorectal cancer.<sup>18</sup>

Linseed tea is a popular naturopathic drink which hydrates the bowel while releasing the lignans for maximum benefit. Linseeds are added to water, gently brought to the boil and then switched off (1tbsp linseeds per pint of water). The mixture is then simmered gently for an hour, and then left to thicken as it cools. Before cooling, the seed husks can be sieved off and discarded if wishing to avoid the fibre. Linseeds are also rich in omega 3 oils, which we need to maintain a healthy turnover of cells lining the digestive tract, together with zinc,



iodine and vitamin C. A balanced diet should provide much of this, especially if including iodine-rich seaweeds, but good quality supplements can also be useful to ensure adequate amounts.

The iodine in seaweeds also supports the thyroid, which regulates the rate at which we digest, metabolise and eliminate substances, and so is directly involved in our nourishment and our bowel movements. The thyroid also has a hand in regulating temperature and pH, both of which affect enzyme production and the balance of bacteria in our bowel flora.

## AVOIDING GLUTEN

A major factor when considering fibre intake is the gluten content of grains. Gluten can be problematic for many, not just those with Coeliac's disease where gluten measurably damages the intestinal walls and causes problems with absorption and more. Partially broken down gluten proteins can damage tissue throughout the body, even crossing the blood brain barrier to cause disruption there. Gluten can cause problems for those with IBS for similar reasons, creating inflammation and irritation in the mucosa of the intestines. A double blind, randomised, placebo-controlled test on non-Coeliac IBS sufferers showed that patients were significantly worse with gluten within 1 week for overall symptoms, as well as individual scores for pain, bloating, satisfaction with stool consistency, and tiredness.

Gluten levels are high in wheat, and are also significant in rye and barley. Oats are often contaminated with gluten, but certified gluten-free oats are now widely available. Instead include moderate amounts of the gluten-free grains, rice and millet, soaking them well before use. Quinoa and buckwheat are also gluten-free and, while technically not grains, can also be useful in the diet.

## BENTONITE CLAY

Clays have been used therapeutically since time immemorial, and its use spans the continents from American Indians to Ghandi to the great German naturopaths. Bentonite clay is a French green clay, also known as Montmorillonite, often used internally for colon cleanses to "mop up" and help eliminate heavy metals and other toxins from the body.

Bentonite clay also contains a compound called CsAgO<sub>2</sub> which has now been shown to counter pathogenic bacteria.<sup>19</sup>

Researchers suggest that the clay combines with water to create "a chemical condition detrimental to the growth of pathogenic bacteria." When using bentonite clay orally, therefore, it is important to take plenty of water with it.

One study gave bentonite clay to 263 IBS patients (out of a total of 524) for 8 weeks. The group was split between constipation-dominant, diarrhoea-dominant and alternating constipation/diarrhoea IBS patients. There was general improvement across the board with all those taking the bentonite clay, but the most significant response was with constipation-dominant IBS patients, including with improvement in pain.

## PEPPERMINT

Those of you who have experienced the acutely painful bloating, heartburn and indigestion common to IBS may have already cottoned on to the almost instant relief of peppermint. Be it a cup of peppermint tea or a couple of drops of oil on the tongue, there is little that can match its efficacy. A review of studies looking at peppermint oil showed that in every trial peppermint successfully reduced symptoms of IBS.<sup>20</sup>

Peppermint is used to soothe a wide range of digestive complaints, from Crohn's to colitis to colic, due to its ability to stimulate the digestive juices, in particular bile flow. This is why after dinner mints are used to help digest a meal, but would also explain why peppermint can help resolve more serious issues.



This increased bile flow is also thought to help clear mucoid plaque and build-ups of waste from the colon by stimulating peristalsis, the rhythmic contractions that move things through the bowel. Nutrient-rich peppermint leaves are known to be anti-microbial, anti-viral and also anti-tumour: the perillyl alcohol in peppermint leaves has been shown to prevent cancer development in the colon and small intestine.<sup>21</sup>

## GARLIC

Usually touted for its properties in maintaining healthy hearts, garlic is also widely used as an anti-parasite and natural antibiotic to help keep the intestines healthy. Studies have shown how the allicin in raw garlic can stop the growth of pathogenic bacteria in the bowel flora, including the VRE and MRSA superbugs that have developed in resistance to overuse of antibiotics.<sup>22,23</sup> "Many antibiotics used to control or prevent colonization also affect the normal flora," explains one researcher. She explains that the ideal solution would be to use an anti-bacterial food substance like raw garlic

instead, given the safety of such compounds over antibiotics. Furthermore there is a much lower risk of bacteria developing resistance against something like allicin.



Garlic has also been shown to combat candida albicans, the proliferation of a pathogenic bacteria in the gut that develops into fungal spores that can spread through the body causing a number of problems, from thrush to allergies to "foggy brain". Candida albicans has also been linked to constipation, diarrhoea, bloating and wind. Both fresh and dried garlic has been shown to be active against the candida fungus, so you could incorporate raw garlic into salad dressings and include garlic powder as a supplement.<sup>24</sup>

## CLOVE

Clove oil has also been shown to be remarkably efficient at combatting fungal infections, including candida albicans and even strains of fungus that are resistant to the antifungal drug fluconazole.<sup>25</sup> In addition, the sesquiterpenes in cloves have been found to have anti-cancer properties<sup>26</sup>, as well as being anti-inflammatory and promoting the secretion of digestive juices and improving muscle tone in the stomach and small intestine<sup>27</sup>, thus contributing to healthy activity throughout the digestive tract. Finally, Dr. Hulda Clark recommends cloves as part of her parasite cleanse programme in her book *The Cure For All Cancers* (New Century Press, 1993).

## FENNEL SEED

Fennel is another common digestive aid, and fennel seeds are frequently chewed or made into a tea with hot water to avoid indigestion and wind after meals. Fennel has been shown to calm down spasms in the intestines, and so may be useful for the pain associated with IBS.<sup>28</sup> In lower concentrations, fennel can aid motility through the digestive tract, and so be helpful with constipation and sluggishness<sup>29</sup>.

## CINNAMON, CARDAMOM AND TURMERIC

These fragrant spices can be used in sweet and savoury meals, and all have traditional applications for soothing digestion.

In Ayurvedic medicine, turmeric is an important cleansing and detoxifying agent. Turmeric is also classically used as an anti-inflammatory, particularly for the digestive system. A study of 207 IBS patients given either 1 or 2 tablets of turmeric powder daily reported a significant

reduction in their symptoms, including pain/discomfort and bowel pattern.<sup>30</sup> In addition, a wealth of studies have also demonstrated turmeric's ability to inhibit the growth of bacteria, yeast and viruses.

Cinnamon has anti-microbial properties that can help keep the bowel flora in balance, and recent studies have looked at cinnamon's anti-cancer abilities, particularly with regard to colorectal cancer. Researchers believe that cinnamon's success with cancer is directly linked with triggering apoptosis, or cellular death, as well as the inhibition of NF- $\kappa$ B and AP1 activities and their target genes<sup>31</sup>, which are involved with tumour proliferation. The curcumin in turmeric has also been shown to inhibit NF- $\kappa$ B and AP1 in human promyelocytic leukaemia cells<sup>32</sup>.

Cardamom and cinnamon have also been shown to be effective against colon cancer by preventing peroxidation of lipids and also by enhancing the activity of the detoxifying enzyme glutathione-S-transferase.<sup>33</sup> Cardamom also reduces muscle spasms, acting on receptors for acetylcholine, the neurochemical that generates muscle contractions, so can be useful for irritable bowel sufferers.

## PARSLEY

Parsley was once among the staple herbs of our diet, but is frequently now relegated to a solitary sprig of garnish left on the side of the plate. Yet parsley contains powerful flavonoids and volatile oils that have a number of health benefits. One of its oils, myristicin, has been shown to activate the same detoxifying enzyme, glutathione-S-transferase, as cardamom.

Parsley is also rich in antioxidant carotenoids, flavonoids and vitamin C, which can all help to protect the mucosal wall of the intestines. Vitamin C is also needed to make healthy tissue, to counter inflammation and to support the immune system. It is no surprise then that the bowel mucosa of patients with ulcerative colitis and Crohn's disease have been found to be markedly lacking in vitamin C.<sup>34</sup>

## PAPAYA

Papaya contains an enzyme called papain that helps to break down proteins in the body, and is now widely available as a digestive enzyme supplement. Anything we can do to help our stomach and small intestine to digest proteins will help to trigger further digestive activity, such as carbohydrate and fat digestion. This in turn will lessen the potential load on the colon, and so help to prevent stagnation and bacterial imbalance there.

Papain has also been shown to produce therapeutic effect in patients with inflammatory disorders in the intestines, as well as the genitals, liver, and eye.<sup>35</sup> In addition, there are a number of studies exploring papaya's role in preventing cancer of the colon, including a Bangkok study that noted a lower incidence of colorectal cancer with higher intakes of papaya.<sup>36</sup>



# ENEMAS, COLONIC IRRIGATION AND OTHER CLEANSING TECHNIQUES

All of these foods and spices can be incredibly useful to help soothe the bowel, keep it healthy and trigger movement to keep things passing through. A happy colon is a hydrated colon, however, and none of these will be as effective if the colon is dehydrated, whether through diet, stress or just years of stagnation. Techniques such as enemas, colemas and colonic irrigation have been used successfully for millennia to keep us happy, healthy and clear.

In addition, any detoxification programme should take into account the fact that toxins and waste materials, once released from the cells, have a long way to go till they are out of the body. The liver and colon are often so overworked that they appreciate some extra support here. So you may want to consider introducing some enemas into your routine.

## ENEMAS

There's no easier way to cleanse and rehydrate the colon than with an enema. Although a commonplace household feature in many cultures, we Brits have largely missed out on this gentle and inexpensive remedy for constipation and many other ailments. Most enema kits hold up to a litre of body

temperature fluid, which then trickles gently down a tube and through a short, thin nozzle into the anal canal, and then into the colon. The fluid is then either absorbed into the body or helps to flush out the lower part of the bowel. Plain water enemas can therefore be very cleansing and hydrating. Coffee enemas stimulate detoxification in the liver and blood (the coffee is taken to the liver via the haemorrhoidal vein), chamomile enemas can soothe the liver, and there are many more to choose from, depending on what is appropriate for you – many nutritional therapists and naturopaths will be able to advise on this.

## COLONIC IRRIGATION

Many of you will have tried or at least heard of colonic irrigation, a popular treatment offered at clinics, spas and retreats. Greater quantities of water are used, often with a gravity-fed system but sometimes softly pumped. Colonic irrigation is often seen as a deep clean, and can trigger detoxification throughout the body. For this reason, it may be advisable for some to do a coffee enema at home the day afterwards to help the liver release what has been eliminated.

## GINGER ROOT

The Chinese have used ginger to aid and treat indigestion, stomach upset, diarrhoea and nausea for more than 2,000 years. Modern studies have confirmed ginger's usefulness in all these areas. Ginger has been shown to be effective in reducing motion sickness, morning sickness and post-operative nausea.<sup>37</sup> Several studies have looked at the gingerol compounds in ginger and their activity against helicobacter pylori, which is associated with dyspepsia, stomach ulcer and colon cancer.<sup>38</sup> Ginger is an age old remedy for constipation, and the zingerone in ginger has also been shown to help with diarrhoea.<sup>39</sup> Finally, ginger has strong anti-inflammatory benefits, being able to reduce levels of the inflammatory prostaglandin PGE2.<sup>40</sup>



## ALOE VERA

Whole leaf aloe vera is a cooling balm to soothe many fiery digestive complaints, including peptic ulcers and hyperacidity in the stomach. Research also demonstrates aloe's effectiveness in improving bowel tone and relieving constipation, improving digestion of proteins and balancing the bowel flora. This is at least partly due to its prebiotic content, which helps to colonise the gut with beneficial bacteria. Aloe vera can therefore be used as part of a programme to reduce candida albicans and other imbalances in the intestinal flora, as well as having anti-parasite properties.

Aloe vera contains a number of anti-inflammatory agents, including bradykininase, aloe and aloe-emodin, which may be why some patients with IBS, colitis and Crohn's have found aloe useful to relieve their symptoms.<sup>41</sup>

When taking aloe vera, it is important to use a good quality whole leaf product. Beware products advertising to be "made with" 99% or 100% pure aloe: aloe they have used may be 99% or 100% pure, but they may only have used a small amount of it in the gel itself, mixed with other, less useful substances.

## SIX STEPS TO A HEALTHY COLON

Whether you wish to resolve a current bout of constipation, soothe a long term digestive complaint such as IBS or embark on a colon cleanse to benefit your whole body (and mind), there are some golden rules you should consider following:

- Ease into and out of any programme gently. Sudden dramatic changes can add more stress to the body, which makes it harder for you to let go on any level, and can add to inflammation, dehydration and contraction in the colon.
- If you are in any doubt, take advice from a professional you trust.

This basic six step plan is a sensible framework for most that can set you on your way to a healthier colon.

- 1 Gradually increase your plain water intake to around 2 litres per day (no more than 1 pint in the space of an hour), ideally room temperature and not gulped down. At the same time, reduce caffeine (tea and coffee), fizzy drinks and alcohol.
- 2 Include fresh vegetable juices, perhaps carrot, beetroot and ginger, or celery, spinach and parsley. If possible, also drink a glass of coconut water daily.
- 3 Simplify your diet. Keep sugar, table salt, processed foods and gluten to a minimum. If you can tolerate grains well, soak rice and quinoa overnight in water and cook well in plenty of water, serving with perhaps a mild coconut and vegetable curry with turmeric, ginger, cardamom and garlic. Also make simple, nourishing soups – and chew all your foods well even if they are liquid! This starts off important digestive processes.
- 4 Soak flax seeds overnight in water, or make linseed tea, and have some daily on an empty stomach.
- 5 Consider getting an enema bag or bucket, and find out the best way for you to use it.
- 6 Find a good colon support formula that contains some of the ingredients described above, plus a reliable probiotic.

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practitioners, or contacting The Federation of Nutritional Therapists on 0870 312 0042 or by emailing them at [admin@fnftp.org](mailto:admin@fnftp.org) uk

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