



# THE GUT TRANSLATOR

Do you know what  
your **GUT IS**  
**TELLING** you **?**

**Yakult®**

# CONTENTS

|                    |                                      |
|--------------------|--------------------------------------|
| <b>Page 1</b>      | Contents                             |
| <b>Page 2</b>      | Foreword                             |
| <b>Page 3</b>      | Welcome to the gut                   |
| <b>Page 4</b>      | Health you can see                   |
| <b>Page 5</b>      | Listen carefully                     |
| <b>Page 6</b>      | Scents and smells                    |
| <b>Page 7</b>      | All in the best possible taste       |
| <b>Page 8</b>      | Gut feelings                         |
| <b>Pages 9–10</b>  | Common gut disorders                 |
| <b>Pages 11–12</b> | When is your gut telling you things? |
| <b>Pages 13–14</b> | The gut flora                        |
| <b>Page 15</b>     | Feeding your gut                     |
| <b>Page 16</b>     | Exercising your gut                  |
| <b>Page 17</b>     | A good gut lifestyle                 |
| <b>Page 18</b>     | Do you respect your gut?             |
| <b>Page 19</b>     | More gut translators                 |

## FOREWORD



The digestive system is not only the longest human organ at around 24 feet in length from start to finish, but unlike other internal organs this one is in almost constant communication with its owner.

The GutTranslator is your own very personal guide to the language of your digestive system. Use it to tune in to this most intimate friend inside your body—see, hear, taste, feel and smell what it has to say!

Did you know that the gut is the only organ in the body that can use all five senses to talk to you? What other body part can let you know it's high time you ate, tells you what it thinks of the meal you enjoyed earlier, or sends you running for the toilet?

Your gut has to make its feelings known, because keeping it healthy has implications for body systems not normally associated with digestion, such as repairing damaged intestinal tissues and fighting infection. Did you know, for instance, that the gut is home to much of the immune system? It has to be, because if it wasn't its massive surface area (flattened out, your gut is the size of a tennis court) would make it the easiest ever entry point into the body for pathogens.

### GUT-BASED IMMUNITY HEROES

Most of the hostile bacteria that try to invade the body via food are doomed to fail against an arsenal of internal weaponry. If not trapped by antibody-laden mucus, or dissolved by powerful stomach acid, enemies that get past the front lines find themselves in hostile territory, partly thanks to beneficial gut flora that manipulate conditions in the gut to make life there a bit more difficult for undesirables. Then the gut-associated lymphoid tissues subject them to deadly assault by targeted antibodies.



# WELCOME TO THE GUT

- How the different parts of the gut work
- Organs that help the gut do its job

# HEALTH YOU CAN SEE

- Health clues from your tongue
- What to check for
- How often should you go?

## The central line

- 1. The mouth** – sense of taste checks food for freshness and acceptability, teeth and tongue munch food into manageable pieces.

### MYTH

#### “The tongue is the strongest muscle in the body”

The most powerful muscle for its size is the nearby masseter, or jaw muscle, which has a mechanical advantage because of the way the muscles attach to the jaw to form a lever.

- 2. The oesophagus** – its powerful, rhythmic muscular action pushes food down to the stomach.
- 3. The stomach** – food is marinated in the stomach's juices for a few hours. Acid and enzymes break down most of the proteins, and the acid also kills off the majority of bacteria. The resulting soup-like mixture oozes slowly into the small intestine.
- 4. The small intestine** – food particles are massaged and chemically processed into simple carbohydrates, proteins and fat. Much of our food is then absorbed into the blood stream through the small intestine's walls.
- 5. The large intestine** – any remaining food particles remain for 12-48 hours where water and minerals are absorbed while a team of bacteria break down undigested food stuffs.

## The support team

- 6. The pancreas** – in its digestive role, this gland secretes an alkaline juice (which neutralises the acid from the stomach) and enzymes break down protein, fat and carbohydrates. Some cells of the pancreas also secrete hormones like insulin, which help control blood sugar.
- 7. The liver** – used for storage, assembling proteins, and neutralising poisonous waste. It's not directly connected to the gut, but digestive products reach it via the bloodstream.
- 8. The gall bladder** – squirts a juice called bile into the small intestine. Bile works rather like soap, helping fat and oils mix with water so they can be washed out of the food particles and then absorbed.



## Visual signs from the gut are only really available at the start and finish. But they are rich in information, so take a look.

Unusual tongue appearance can give some clues to health problems. Some of these are listed below.

### APPEARANCE OF TONGUE

Pale and smooth

Bright red

White patches

Bright or dark red (with painful mouth)

Yellow

### ASK DOC TO CHECK FOR

Deficiency of iron or vitamin B12

First sign of scarlet fever

Can accompany fever, dehydration, or possibly indicate fungal infection

Deficiency of vitamin B3 (Niacin)

Bacterial/fungal infection in mouth, or gastric reflux

intestine, so too much water is sucked back into the body. Diarrhoea, loose and ragged, races through the gut leaving no time for water to be absorbed properly.

### The Bristol Scale



Courtesy of The Bristol Scale (ref: BMJ, 1990)

## Stool colour

Healthy stools are light brown in colour and shouldn't cause discomfort when passed. Black and sticky stools could indicate bleeding high in the small intestine or in the stomach, perhaps due to an ulcer. Pale stools, especially linked with dark urine, are a clue to gallstones or a pancreatic disorder that could be blocking the flow of bile from the liver. Fresh blood in the stool can indicate rectal or anal disease. Discuss with a doctor without delay.

## Frequency

As a general rule, bowel movements should be no more than 3 times a day and no less than 3 times a week. Unfamiliar foods, or travel, can trigger temporary changes but if your normal pattern is disrupted for a matter of weeks, or if you need to open your bowels in the night, you need to see your doctor.

Shape, consistency and colour of bowel movements, as well as the frequency, can provide clues to potential health problems.

## Stool shape and consistency

The Bristol Scale classifies bowel movements into seven types. The ideal stool type is a moist, bulky 3 or 4. Grade 1 may indicate constipation while a runny grade 7 suggests diarrhoea.

Stool consistency relates to transit time – the time food takes to pass completely through the gut. A constipated stool has spent too long in the large

# LISTEN CAREFULLY

- What causes burps
- Tummy growls and rumbles
- Embarrassing wind

**Don't be embarrassed by rumbles and growls from down below—celebrate! They're signs of a digestive system functioning properly.**

## Burping

Burping—or eructation—is air escaping from the stomach or oesophagus. We swallow air with each mouthful of food or drink. Most gases are absorbed into the blood and passed out in breath. But some bubble out in a burp. Burping three or four times after a meal is about normal. Aerophagy, or chronic repetitive burping caused by air being sucked repeatedly into the gullet, has little to do with eating but may be linked to anxiety.

## Rumbling tummy

Borborygmus (plural borborygmi)—or a stomach rumble—is the noise made by gas and fluids moving around the gut. If you've not eaten for a few hours, stomach contractions slosh digestive juices into the intestines and this, combined with intestinal movements, make gurgling sounds.

## Noises after eating

Partly-digested food entering the small intestine is processed by bacteria that break it down further. A by-product is gas that can cause a gurgling or popping sound from the abdomen. The more noise, the more gas in the gut—but a normal part of the digestive process.

## Breaking wind

The intestines collect pockets of gas from the gut bacteria's degradation of food. Up to 2 litres of wind—scientific name flatus—escapes through the average anus daily. Noises occur as the air is forced out of its exit point under pressure, making buttock

flesh vibrate a little along the way. Normally wind escapes 14—23 times a day although some foods (brassicas—cabbage, parsnip, turnip, swede, brussel sprouts, broccoli) are enthusiastically fermented by bacteria in the large intestine causing extra emissions.



## MYTH

**“It goes right through me!”**

The time taken for food to travel all the way through the gut is generally in the region of two days. After a meal, it takes 4 to 5 hours for the stomach to empty fully, and about as long again for food to pass through the small intestine. Finally, passage through the large intestine takes 30 to 40 hours.

# SCENTS AND SMELLS

- How cooking smells stimulate appetite
- Why wind smells so bad
- Which foods generate the worst smells
- Know the danger signs

**The interplay between our sense of smell and our digestive systems begins even before we start eating...and continues long afterwards.**

## Something smells nice

The smells of food being prepared trigger the brain to send signals to the gut to receive the anticipated meal—the mouth waters and down the length of the gut, enzymes are prepared that will be needed to digest the meal.

## MYTH

**“Bad breath is caused by stomach problems”**

Up to a quarter of adults regularly have smelly breath but in virtually all cases it comes from their mouth and results from bacteria breaking down proteins, from food or injured tissue. Tooth decay, gum disease, food particles stagnating between the teeth, or simply dry mouth are key problems.



## Toxic waste

Over 90% of wind from the bowels is made up of five gases—nitrogen, oxygen, carbon dioxide, hydrogen and methane: the remaining 10% contains small amounts of other gases, but the tiny quantity of hydrogen sulphide ( $H_2S$ ) makes the biggest stink, a characteristic rotten egg smell. It's not just smelly, it's actually as toxic as hydrogen cyanide. (Luckily, beneficial bacteria in the gut detoxify most of the  $H_2S$  generated by digestion, so human farts are not actively dangerous, just unpleasant!)

## Smells in the bowel

Bacteria in the large intestine are to blame for making wind and stools smell unpleasant. But while certain foods and drinks may make you emit more gas, others definitely make waste more smelly. Preservative-rich highly processed food, also high protein foods such as red meats, are rich in sulphur compounds which can produce nasty hydrogen sulphide gas.

## Smells of danger

Fatty stools that are difficult to flush away—steatorrhoea—smell particularly bad. They could indicate an excessively fatty meal, but occurring frequently they could also show difficulties breaking down and absorbing fat that may have a number of causes. It could signal a disorder of the pancreas, which normally produces lipase, a fat-processing enzyme; or of the liver which manufactures bile salts.

## ALL IN THE BEST POSSIBLE TASTE

- How the tongue tastes food
- How a sense of taste keeps you safe
- Why a bad taste in the mouth could be dangerous

## GUT FEELINGS

- Pain and indigestion – when to act
- Reasons for embarrassing itching
- Uncomfortable bloating

The gut starts with the mouth, so the first thing food comes into contact with is your tongue. Between 2,000 and 8,000 hypersensitive taste buds check food for palatability but also for the possible presence of poisons or microbial contamination.



### A bad taste in the mouth

A range of medical conditions can affect the sense of taste.

Tooth decay and mouth infections such as gingivitis make the mouth taste foul, as can gastritis. Sufferers of acid reflux may experience a metallic taste caused by regurgitated stomach acid. Because this reflux could leave a patient vulnerable to other, more serious gut diseases such as ulcers and cancers, it should always be brought to a doctor's attention.

Medications, like antibiotics, can reduce or distort a sense of taste, while other drugs dry the mouth, making it harder to taste things. A very poor sense of taste, as can develop with cancers in the head and neck, or the radiography to treat them, can be life-threatening because there's a danger of eating spoiled or contaminated foods by accident. But more commonly, without the pleasure of eating, it's difficult to eat enough to maintain a healthy weight and fight disease.

If a cause for unusual taste symptoms isn't obvious, a neurologist should be consulted.

### Not-so-sweet tooth

Smoking, respiratory infections and antibiotics can affect the sense of taste, but can be temporary and thus reversible. But ageing can lead older folk to put extra sugar in their tea, or more salt on their meals. Both can spell problems for diabetics or those with high blood pressure.

The digestive system is very good at expressing itself when things are not right. The discomfort of indigestion can be familiar after a rushed meal but thankfully short-lived, passing quickly on its own or with the help of antacids. Other symptoms can be harder to talk about however.

### Pain

Dyspepsia, the medical name for indigestion, can occasionally be worrying. If painful indigestion is persistent, develops without apparent cause (especially in the over-55's) or is accompanied by other symptoms (such as vomiting, difficulty swallowing or loss of appetite), a doctor should run tests to rule out ulcers, gallstones or—rarely—cancer. However, often there's no identifiable cause and treatments can do no more than control the more troublesome symptoms.

Persistent or severe pain in the stomach, abdomen or the back passage should always be investigated without delay.

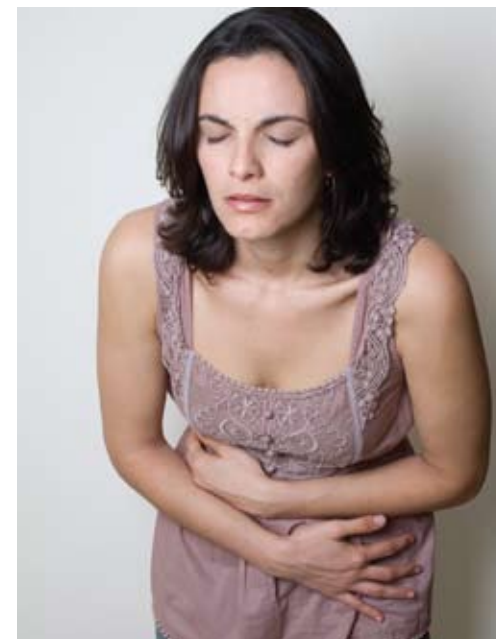
### Embarrassing itching

Itching around the anus is very common. It's usually caused by moisture or irritation from soaps, and gets better quickly with gentle washing and thorough drying. But if you have young children, then worms may be the cause. This problem is easily and discreetly solved. If you discover worms, treat the whole family with mebendazole, available from a pharmacist.

An itchy bottom could be a sign of haemorrhoids (piles), which are also easily treatable, however it might mean colonic disease so you should be prepared to discuss with your GP.

### Bloating

That uncomfortable feeling that you're ballooning with excessive gas in the bowel usually results from exactly that, although in the sensitive Irritable Bowel Syndrome (IBS) gut the same discomfort is felt just with normal amounts of gas. The bloat can also be caused by eating rich fatty foods. Bloating is hard to treat because the causes are so individual—some people find a high fibre diet helps but others find it only makes them worse. If you feel bloated, loosen your clothes for comfort and step outside to relieve gas without too much embarrassment. But if bloating is accompanied by other symptoms, such as weight loss and diarrhoea, see your doctor to rule out anything more suspicious.



### MYTH

#### “Tongues can be mapped into different taste areas”

Scientists no longer demarcate the tongue's surface into areas detecting a particular taste – sweet, sour, salty and bitter. Five basic tastes have been identified so far, each individual taste bud has between 50 and 100 receptors for each taste, so the entire surface of the tongue can sense all of these tastes. The fifth taste, is called “umami” from the Japanese meaning savoury.

# COMMON GUT DISORDERS

- Bowel cancer
- Coeliac disease
- Diverticular disease
- Gastroenteritis

- Haemorrhoids
- Inflammatory bowel disease (IBD)
- Irritable bowel syndrome (IBS)

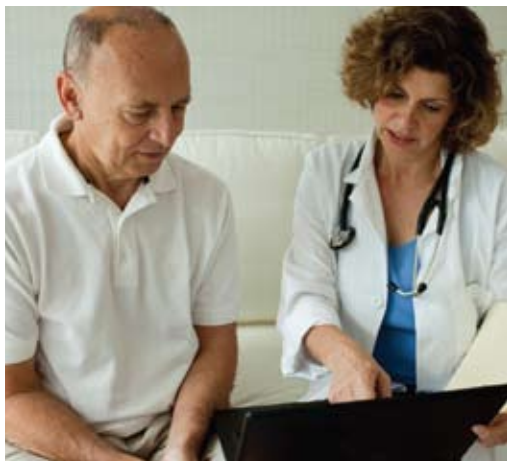


**Unusual gut symptoms should never be ignored. There are dozens of ways in which the gut can go wrong. Some of the more common are discussed over the next two pages.**

## Bowel cancer

Around 35,000 people in the UK are diagnosed with bowel cancer each year. The risk increases with age - 97% of those diagnosed are over 50 - but bowel cancer can take years to develop and risk can be cut by making lifestyle changes.

Bowel cancer affects the lower part of the digestive system: the colon (colon or large bowel cancer) and the rectum (rectal cancer). Early stages may pass unnoticed, but symptoms such as blood in your stools, persistent changes in bowel movements, abdominal pain or discomfort, losing weight or extreme tiredness and bowel blockage, should be discussed with a doctor.



## Coeliac disease

This is a sensitivity to the protein gluten (found in wheat, barley and rye) and sufferers can harm the lining of the small intestine by eating gluten. Around 1% of people have coeliac disease, but many are symptom-free. Symptoms can include: diarrhoea, vomiting, weight loss or a failure to gain weight, abdominal pain, anaemia, mouth ulcers or simply tiredness. Diagnosis can be by a simple screening blood test for tissue transglutaminase antibodies. There's no cure, just management by avoiding gluten products.

## Diverticular disease

This occurs when pouches balloon outwards from the wall of the large intestine. Between one third and a half of the population of Western Europe will get diverticula in the colon during their lifetime, although three quarters will be symptom-free and may not even realise they have it. Symptoms vary—some patients getting constipation and others diarrhoea—but may include pain, often quite low down in the left side of the abdomen, together with bloating and an irregular bowel habit. Serious complications are rare, and the symptoms can often be controlled by eating healthy foods and drinking plenty of water.

## Gastroenteritis

An infection of the stomach and intestines. The most common symptoms are diarrhoea and vomiting and normally mild and most symptoms will go within a few days without treatment. If symptoms are severe, continue for a long time, or the sufferer is vulnerable due to age or other illness, hospital treatment may be needed to prevent dehydration.



## Haemorrhoids

Inflamed blood vessels in the rectum and anus, affecting around 50% of people at some point in their lives, starts with itching or bleeding around the anus, as well as discomfort when opening the bowels. It's caused by too much pressure on the blood vessels around the rectum—commonly a result of excessive straining when passing stools. Eating more fibre and drinking plenty of water to soften the stools may help prevent the need for direct treatment.

## Inflammatory bowel disease (IBD)

Inflammatory bowel disease refers to a group of chronic disorders in which the intestines become inflamed (painful and swollen), probably because of a misdirected immune response by the body against its own intestinal tissue. Two major types of IBD are ulcerative colitis (UC) and Crohn's disease (CD). As the name suggests, ulcerative colitis is limited to the colon (large intestine), while Crohn's disease can involve any part of the gastrointestinal tract from the mouth to the anus, although most commonly in the small intestine and/or the colon. No specific treatment suits everyone; doctors have to work together with the patient to find ways to manage the symptoms long-term.

## Irritable bowel syndrome (IBS)

About a third of the population experience irritable bowel syndrome (IBS) at some time in their lives. It's a collection of otherwise unexplained large bowel symptoms that might include abdominal pain and spasms, diarrhoea, constipation, bloating and excess wind and, most inconveniently, urgent needs to visit the toilet and incontinence if you don't get there in time. Some non-bowel symptoms occur as well, such as urinary frequency, pain on intercourse, back pain and headache. IBS is more common in women than men, and may be aggravated by stress and life changes. There is no cure and as it affects people in different ways so too can the treatment to help alleviate symptoms.

# WHEN IS YOUR GUT TELLING YOU THINGS?



- A check-list for worrying gut symptoms
- Forget spring cleaning!



**A healthy gut tells its owner what's going on inside and the details are not generally a cause for major concern. Occasional pain or discomfort when going to the loo, or a change in bowel movements, usually right themselves in a day or two.**

If some symptoms persist this could be a sign of a digestive disorder. Many are treatable, and those that can't be cured outright can often be managed successfully, so it is always worth seeking help. If any of the symptoms in the table become regular or occur without obvious reason then see a doctor.

- Abdominal pain before or after meals
- Feelings of fullness, bloating or flatulence
- Nausea or vomiting
- Heartburn or regurgitation
- Pain or difficulty in swallowing
- Loss of appetite
- Continuing unexplained weight loss
- Indigestion developing for the first time or in mid or later life
- Diarrhoea, constipation or any alteration in bowel habit
- Change in stools (bowel motions) especially if they become black, dark red, pale or contain mucus (slime)
- Bleeding when you pass a stool
- Pain when you pass a stool
- Feeling that your bowels are not emptying completely
- Generally feeling tired, lethargic or unwell in association with any abdominal symptoms



(Guidelines for early diagnosis of gut problems from the British Society of Gastroenterology and Core)

## A dubious spring clean

Colonic irrigation, while attractive to those who like the idea of giving a temperamental bowel a spring clean, is definitely not to be recommended. This assault on such a delicate internal organ offers no proven medical benefits but the risks include perforation of the bowel, dehydration, infection and, at the very least, disturbance of the intestinal flora which might result in the symptoms that worried you in the first place.

## MYTH

### “Constipation can poison the body”

Constipation might well make you feel sluggish and bloated, but there's no evidence that bugs or any toxins leak from your bowel into any other part of the body. Similarly, there's no evidence that long-term constipation increases your chances of getting bowel cancer.



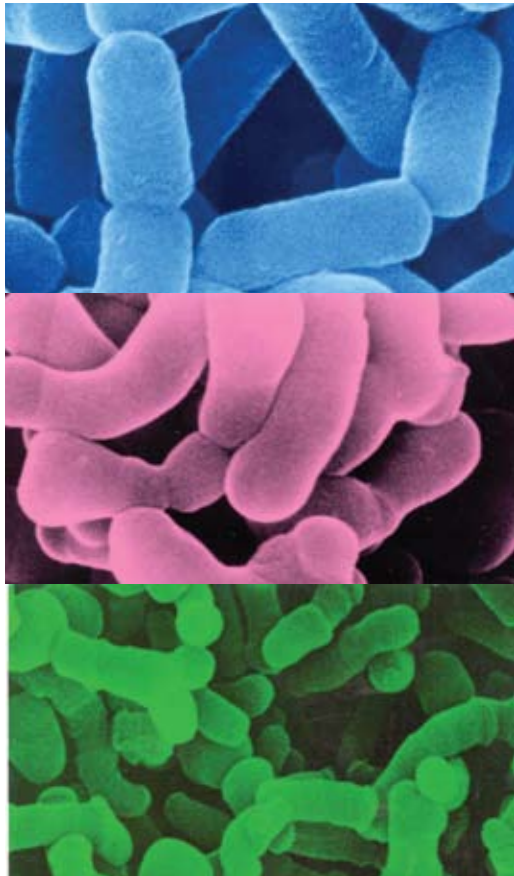
# THE GUT FLORA



- Our living internal micro community
- How our gut flora aid digestion
- Preserving healthy gut flora
- Probiotics and prebiotics



**Our large and small intestines are home to trillions of living, flourishing microorganisms. They're what we call the gut flora. These bacteria not only live harmlessly in that dark, secret place deep within us, they are essential to our health. We literally could not live without them.**



The gut flora, when they're doing their job correctly, keep the gut healthy. Intestines aren't particularly fussy about which types of bacteria live within, it's open house, whether you're a friendly *Lactobacillus* or a nasty *Salmonella*. The components of any individual's gut flora depend on their diet, health and lifestyle as well as their own internal environment. In a healthy gut, though, we find a pretty unchanging community in which beneficial microorganisms help keep the harmful ones in check, thereby reducing the build up of harmful toxins they might produce if left to their own devices.

The gut flora also help digestion. The activities of some of these microbes help nourish the lining of the large intestine, dispose of gas, absorb nutrients, break down food and keep the bowels moving. Some of them even make vitamin K (essential for blood clotting) and biotin (a B-vitamin involved in fat metabolism). The gut flora also influences our immune system.

## Fewer friendly bacteria with age

The levels of beneficial bacteria in the intestines tend to fall with age, while numbers of certain other types that could be harmful, can increase. This is one reason why we are likely to experience more digestive problems in later life.

## Keeping up levels of beneficial bacteria

Maintaining a healthy gut flora depends on many factors, especially the quality of your diet. We all know it's likely to be harmful to take in disease-causing bugs in our food. But beneficial live bacteria can be consumed in specially prepared foods called probiotics, generally in the form of fermented milk drinks and yoghurts.

What's clever about good quality probiotics is that they contain strains of bacteria that are proven to be able to survive the hostile stomach acids, so they reach the gut in sufficient numbers to be able to set up home for a little while with your own gut flora in the large intestine. There's lots of evidence that probiotics taken on a daily basis can help 'top up' levels of helpful bacteria in the intestines. They're not a quick fix, and need to be seen more as a long term health investment, especially as the effects may not be very obvious or immediate.

A slightly different approach to a healthy gut flora, is to eat plenty of naturally prebiotic fruits and vegetables such as garlic, onions, leeks, bananas and asparagus. These contain rather useful types of non-digestible carbohydrates. On reaching the lower intestines, they specifically feed the beneficial bacteria there, just like some garden fertilisers feed your lawn not the weeds.



## PRO AND PRE BIOTIC: WHAT'S THE DIFFERENCE?

**Probiotic** foods contain living beneficial bacteria. They're designed to be taken every day in addition to a healthy diet. They help bolster up your natural population of health-protecting gut bacteria.

**Prebiotic** foods are foods that beneficial bacteria happen to like to eat. If you include them as part of a healthy diet you'll be making your gut a more nourishing place for the kind of bugs that help you stay healthy.



# FEEDING YOUR GUT

- Five a day
- Eat more fibre
- Sensible protein sources
- Get enough fluids
- Encourage your gut flora

**Next time you eat something...have a guess at how it is likely to affect your gut. Will it leave you feeling bloated? Might it help or hinder the healthy balance of your gut bacteria? Will life be uncomfortable and smelly in a few hours?**



As well as supplying the raw materials for our body's energy and nutrition supply, a healthy diet also supports the mechanical function of the gut and plays a part in its care and maintenance system. For example:

- **Get your five a day:** Regular intake of fruits and vegetables has been associated with reducing gut-related cancers. Dried fruit counts (it's low in vitamin C so eat lots of fresh as well). Rinse fresh fruit under running water before eating raw, to get rid of potentially harmful bacteria.
- **Eat more fibre:** Most people don't eat enough, so their gut has to work overtime to get waste out of the body, risking constipation. Eat more fruits, vegetables, beans and wholegrain cereals but step it up gradually while your system gets used to it—watch for bloating and wind.
- **Get your protein from lean meat, eggs, fish and dairy products:** Many protein foods are loaded with fat which slows stomach emptying and can result in bloating, so go lean where possible. Highest-protein foods can end up producing that particularly smelly hydrogen sulphide gas.
- **Drink plenty of fluids:** Drinking regularly keeps your mouth fresh by keeping oral bacteria on the move. It also helps your gut flush out waste, preventing constipation.
- **Get some beneficial bacteria:** Eat prebiotic foods such as bananas, onions and leeks as they stimulate the growth of your own beneficial bacteria, and consider having a daily probiotic drink or yoghurt.

# EXERCISING YOUR GUT

- How excess weight affects your gut
- Tips to get you moving

**Excess weight around the midriff is bad news for the gut. "Apple-shaped" obesity (weight is stored around the middle rather than on the hips in "pear-shapes") presses on the stomach and can even squash food mixed with stomach acid back into the gullet, causing heartburn and possibly, eventually, painful and difficult-to-treat ulceration. Constipation and haemorrhoids are also more likely with excess weight.**

Exercise alone won't get the spare tyre off but it's easier to control weight (and appetite) if you're active for 30 minutes a day, four or five times a week.

Wear comfortable shoes outside the house. Now park your car a little further away from wherever you're going and enjoy that walk.

## MYTH

**"You should wait an hour after eating before going for a swim"**

The fear is that a busy stomach, deprived of oxygen, might develop a cramp or stitch. In reality such cramps would be mild.

- **Walk or cycle small errands:** Fit a basket or panniers to your bike so you don't need the car to pop to the shop.
- **Take the stairs:** If you use a lift or escalator on a daily basis then walk some of the way. Take it slowly so you can keep going.
- **Listen in:** Whether it's walking, gardening, housework or walking the dog, an mp3 player keeps you company and makes exercising time fly—if you're not into music, try podcasts of interesting programmes.
- **Do it with friends:** Form a walking/running/dog-walking group several times a week. Or join a group near you. Go to "Walking for Health" on [www.whi.org.uk](http://www.whi.org.uk)
- **Learn something new:** Take lessons in a sport you can enjoy with friends or partner, such as tennis or swimming. Get a sense of achievement as well as a new healthy pastime.
- **Keep it varied:** Helps keep your enthusiasm for exercise up so you're more likely to stick to it. Include flexibility exercises like yoga and pilates, aerobic exercises like walking and swimming and anaerobic exercises like weight bearing exercises.



# A GOOD GUT LIFESTYLE

- How your gut likes to be fed
- Sleeping and relaxing
- Alcohol and cigarettes
- Handle medications with care

**The way we eat, sleep, work and socialise can all be organised to give the gut the respect it deserves.**

- **Eat slowly:** chewing releases enzymes which kick-start digestion. It also gets food to the stomach in manageable, well-chewed slivers. Bolted-down food can take down lots of air with it, leading to uncomfortable wind.
- **Eat regularly and moderately:** the first meal of the day wakes up the gut and stimulates a bowel movement, so keep regular by having breakfast at the same time every day.
- **Get to bed:** lack of sleep can disrupt bowel function, appetite and mental function. Insomnia sufferers should rule out late-night fatty foods, alcohol and caffeine.
- **No smoking:** smoking not only affects the lungs but also the gut. Cigarettes increase the likelihood of heartburn, peptic ulcers, Crohn's disease and cancers of the mouth, oesophagus, stomach and pancreas. It can also diminish the sense of taste.

**What is a stitch?** A sharp pain in the side, common when running soon after eating. Most scientists believe the pain is caused by reduced blood supply to the diaphragm. It will go away on its own in minutes.

- **Only take antibiotics when they're really necessary:** they can disturb the delicate balance of the gut flora and cause digestive disturbances, so don't nag your doctor for them.
- **Relax:** eating while stressed can cause indigestion in the short term as well as aggravating existing gut complaints such as IBS.

- **Drink sensibly:** alcohol is a poison, hence over-consumption triggers vomiting, and regular excess is linked with cancers of the gut and liver damage. In manageable quantities it dries the mouth, making breath bad, and a source of sulphur compounds which make those fiendishly awful smells.

## MYTH

### “Stress causes stomach ulcers”

Ulcers in the stomach and duodenum happen when naturally occurring acids break through natural defence systems and eat into the lining tissues. This can be caused by an infection from the bacterium *Helicobacter pylori*, or damage from non-steroidal inflammatory drugs (NSAIDs), such as aspirin and ibuprofen which, if over-used, can attack the stomach lining.



# DO YOU RESPECT YOUR GUT?

1. How many fruit and vegetables portions do you eat daily?  
A) None B) 1—2 C) 3—4 D) 5 or more
2. How many hours' sleep do you have each night?  
A) Fewer than 4 B) 4—5 C) 6—7 D) 8—9
3. Do you smoke?  
A) Yes, every day B) Yes, occasionally C) Not for 2-5 years D) Not in over 5 years E) Have never smoked
4. Do you ever exceed the recommended maximum daily intake of alcohol?  
A) Hardly ever B) Occasionally C) Frequently D) Yes, most days
5. How many glasses of fluids do you drink a day?  
A) 0 B) 1—2 C) 3—5 D) 6—8
6. How often do you drink a 'probiotic' drink?  
A) Never B) Occasionally C) Frequently D) Every day
7. How often do you eat 'prebiotic' foods?  
A) Never B) Occasionally C) Frequently D) Every day
8. How would you rate your general stress levels?  
A) High B) Moderate C) Low D) Pretty stress-free
9. Would you take action if your bowel movements or stools changed?  
A) Yes—within a week B) Yes—after a few weeks C) Yes—after a few months  
D) No—I'd live with it E) No—wouldn't even notice a change
10. In an average week, how often do you exercise for around 30 minutes?  
A) None B) Once or twice C) Three or four times D) Five times or more

### Now work out your score by calculating the points below:

- |           |       |        |        |        |
|-----------|-------|--------|--------|--------|
| 1. A) -5  | B) +5 | C) +10 | D) +15 |        |
| 2. A) -5  | B) 0  | C) +5  | D) +10 |        |
| 3. A) -5  | B) -2 | C) 0   | D) +5  | E) +10 |
| 4. A) +10 | B) 0  | C) -5  | D) -10 |        |
| 5. A) 0   | B) +2 | C) +5  | D) +10 |        |
| 6. A) 0   | B) +2 | C) +4  | D) +5  |        |
| 7. A) 0   | B) +2 | C) +4  | D) +5  |        |
| 8. A) -5  | B) -2 | C) 0   | D) +10 |        |
| 9. A) +15 | B) +5 | C) 0   | D) -5  | E) -10 |
| 10. A) -5 | B) +2 | C) +5  | D) +10 |        |

### Between -45 and 0:

Oh dear you really need to show your gut some TLC.

### Between 0 and 25:

You have a vague idea but your gut deserves better.

### Between 25 and 50:

You have some affection for your digestion, but it needs to improve.

### Between 50 and 75:

Well done, you seem to know how your gut likes to be treated.

### Between 75 and 100:

Congratulations—you really know how to love your gut!

# MORE GUT TRANSLATORS

More information about gut disorders and conditions can be obtained from the following organisations and charities.

## **Bowel Cancer UK**

Bowel Cancer UK is a national charity that aims to save lives by raising awareness of bowel cancer; campaigning for best treatment and care and providing practical support and advice.

[www.bowelcanceruk.org.uk](http://www.bowelcanceruk.org.uk)

## **Core - the Digestive Disorders Foundation**

Core is a national charity that funds medical research into the prevention, cure and treatment of digestive disorders, and provides information for patients and sufferers.

[www.corecharity.org.uk](http://www.corecharity.org.uk)

## **Love Your Gut**

The Love Your Gut campaign aims to help people understand how important gut health is to overall wellbeing, encouraging them to discuss issues and seek medical advice where appropriate. It was set up in 2008 to celebrate the 10th anniversary of Gut Week and provides free advice and information packs throughout the year.

[www.loveyourgut.com](http://www.loveyourgut.com)



## **The Gut Trust**

The Gut Trust provides the only dedicated support in the UK to people with IBS, helping them and their families and carers to manage their IBS and achieve an important quality of life.

[www.theguttrust.org](http://www.theguttrust.org)

## **The National Association for Colitis and Crohn's Disease (NACC)**

NACC is the UK's major charity offering information and support to people affected by these conditions. Established thirty years ago as a partnership between patients, their families, friends and the health professionals caring for them, the charity also raises awareness of IBD, campaigns for improved health care and funds vital research.

[www.nacc.org.uk](http://www.nacc.org.uk)

## **Yakult**

Yakult is the original probiotic. It was developed in 1935 by Dr Shirota, at Kyoto University in Japan. Yakult has almost 75 years in bacteriological research and has achieved global recognition in the use of friendly bacteria in foods, cosmetics and pharmaceuticals. Today 28 million bottles of Yakult are consumed each day across 32 countries world wide.

[www.yakult.co.uk](http://www.yakult.co.uk)

[www.yakult.ie](http://www.yakult.ie)

## **Some other websites offering quality expert-reviewed health information include:**

[www.direct.gov.uk/en/HealthAndWellBeing](http://www.direct.gov.uk/en/HealthAndWellBeing)

[www.nhs.uk](http://www.nhs.uk)

[www.bbc.co.uk/health](http://www.bbc.co.uk/health)

[www.netdoctor.co.uk](http://www.netdoctor.co.uk)

**Yakult®**