
ALL YOU NEED TO KNOW ABOUT

HEALTHY EATING & THE DIGESTIVE SYSTEM



THIS FACTSHEET IS ABOUT HEALTHY EATING AND THE DIGESTIVE SYSTEM

To maintain good health, including a healthy digestive system, it is important to follow a balanced healthy diet that includes a range of foods. It is also important to make lifestyle changes such as avoiding smoking and keeping active.

Contents

| | |
|--|---------|
| THE DIGESTIVE SYSTEM | Page 3 |
| KEY COMPONENTS OF THE DIGESTIVE SYSTEM | Page 4 |
| WHY IS HEALTHY EATING IMPORTANT? | Page 6 |
| WHAT IS A HEALTHY DIET? | Page 6 |
| CAN A VEGETARIAN DIET BE HEALTHY? | Page 8 |
| IS A 'CLEAN DIET' HEALTHY? | Page 8 |
| DO I NEED TO TAKE VITAMINS OR SUPPLEMENTS? | Page 8 |
| FOOD MONITORING – HOW AND WHY? | Page 8 |
| CAN STRESS AFFECT MY DIET? | Page 9 |
| HOW IMPORTANT IS FOOD HYGIENE? | Page 9 |
| WHEN SHOULD I SEE A GP ABOUT STOMACH TROUBLE? | Page 9 |
| WHAT RESEARCH IS NEEDED? | Page 10 |

This leaflet was published by Guts UK charity in 2018 and will be reviewed in 2020. This leaflet was written under the direction of our Medical Director and has been subject to both lay and professional review. All content provided is for information only. The information found is not a substitute for professional medical care by a qualified doctor or other health care professional. ALWAYS check with your doctor if you have any concerns about your condition or treatment. The publishers are not responsible or liable, directly or indirectly, for any form of damages whatsoever resulting from the use (or misuse) of information contained or implied by the information in this booklet. Please contact Guts UK if you believe any information in this leaflet is in error.

THE DIGESTIVE SYSTEM

The Digestive System runs from the mouth to the anus and includes the stomach, the large and small intestines and a number of accessory organs, including the salivary glands, liver, gallbladder and pancreas. The role of the digestive system is to turn food and liquid into the building blocks that the body needs to function effectively. To do this it produces and utilises a variety of enzymes and other substances that aid digestion (breaking food down to smaller molecules).

Food takes around two hours to pass through the stomach, two hours to pass through the small intestine and 20 hours through the large intestine and into the rectum; the length of the digestive tube from mouth to anus is 9 metres on average. Approximately seven litres of fluid are secreted by the digestive system and its accessory organs each day. It is important to note that the words 'intestine' and 'bowel' are interchangeable. When the system works correctly, food is broken down so that nutrients can be absorbed and unwanted products excreted. When one or more of the functions of the digestive system fail, symptoms and disease can develop.

There are many different processes which contribute to a functioning and effective digestive system:

- Ingestion (putting food in your mouth)
- Mechanical digestion (chewing and food being churned inside the digestive tract)
- Chemical digestion (digestive enzymes and substances breaking food down)
- Absorption (molecules passing from digestive system into the body)
- Making and passing stools (faeces)

KEY COMPONENTS OF THE DIGESTIVE SYSTEM:

Mouth: the beginning of the digestive tract. Food is put into the mouth and broken down by chewing. This is called mechanical digestion. Various enzymes are secreted to help this breakdown, including saliva or 'salivary amylase' which is involved in digestion of carbohydrates to smaller chains and simple sugars. This is called chemical digestion.

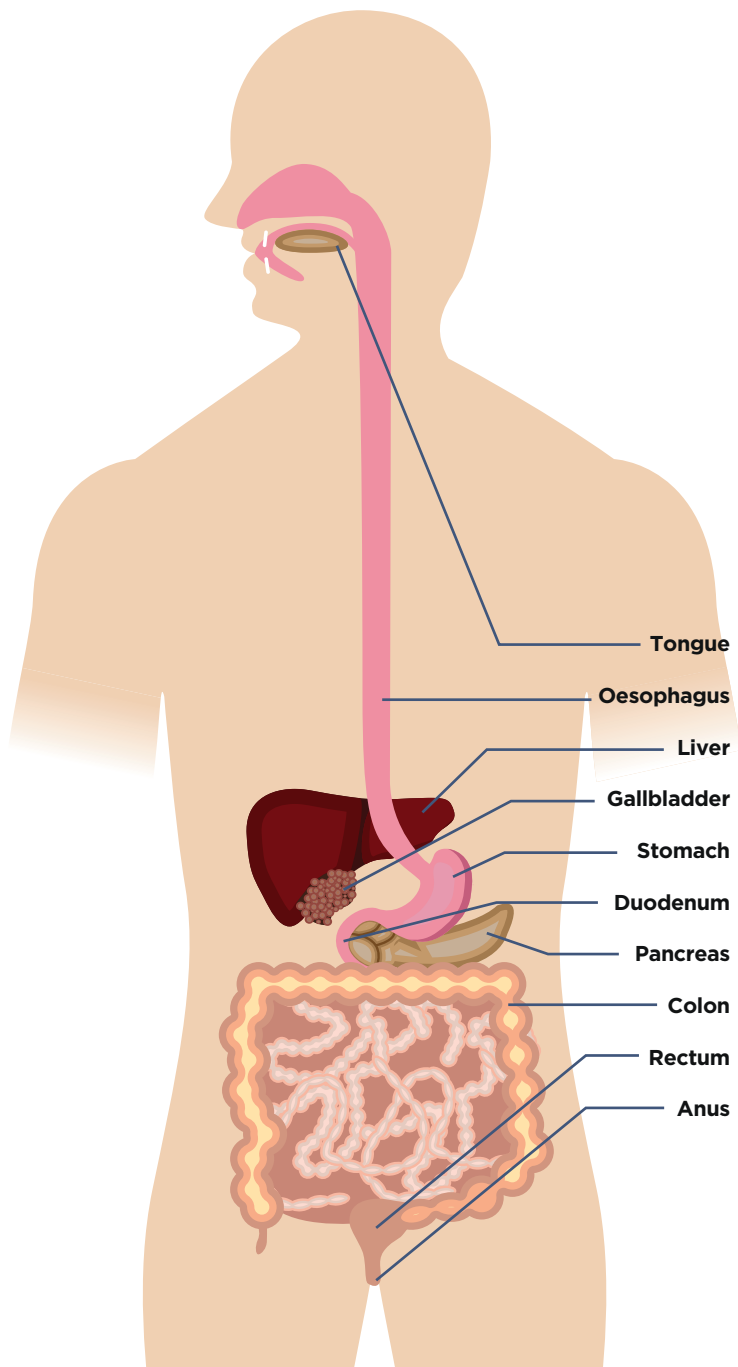
Oesophagus: ingested food is swallowed and transported from the mouth to the stomach by the oesophagus.

Stomach: churning and mixing motions occur here due to muscle contractions, continuing the process of mechanical digestion. In addition, chemical digestion occurs in the stomach. The food is mixed with gastric juices and many digestive enzymes to help break down carbohydrates, proteins and fats. Hydrochloric acid is also released which provides an acidic environment to help enzymes work and also kills some unwanted bacteria.

Small intestine: the main function of the small intestine is absorption of nutrients and minerals. About 90% of digestion and absorption occurs here including the digestion of proteins, fats and carbohydrates. Food is moved through the small intestine by co-ordinated contractions (called peristalsis) of the intestine wall which occur in a wave pattern travelling down from one section to the next. The contractions occur behind the ball of food (bolus), forcing it through the digestive system.

Large intestine: the main function of the large intestine is to remove water from its contents. This hardens the stool so it can be excreted from the body via the rectum and anus.

Accessory organs: the liver has many functions which include help with digesting food, storing fuel for the body (glycogen), helping the blood to clot, and removing or processing alcohol, toxins and medications from the body. The liver also makes bile, which is stored in the gallbladder before passing into the small intestine, where it aids in fat digestion. The pancreas has two main functions: the production of digestive enzymes, which pass into the small intestine to help the chemical digestion of food, and the production of certain hormones, such as insulin, which help control blood sugar levels.



WHY IS HEALTHY EATING IMPORTANT?

Eating a healthy and varied diet can improve general well-being. Good nutrition is essential to obtain the nutrients to keep the body healthy as well as avoiding substances that may be harmful. Having a healthy diet and doing regular exercise can help to achieve and maintain a healthy body weight. A healthy diet is also important to help reduce the risk of developing certain long-term diseases such as diabetes, heart disease and strokes. Additionally, it may reduce the risk of developing certain cancers and types of dementia. Conversely a poor diet can lead to weight gain and can lead to increased risk of developing certain long-term diseases. Any of these health conditions can lead to a poor quality of life and other health complications, which can eventually result in a decreased life expectancy.

WHAT IS A HEALTHY DIET?

A healthy diet means a balanced diet. It involves eating a range of different foods, from a variety of food groups, in adequate portion sizes. There are five different food groups; starchy foods (bread, rice, pasta, potatoes, cereals); protein foods (meat, fish eggs, beans); dairy foods (milk, cheese and yogurt); fruits and vegetables; oils and spreads. One single food group cannot provide everything needed for good health, choosing a variety of foods from each group can help achieve a healthy balanced diet.

Starchy foods, vegetables and fruit should make up the bulk of meals. All of those contain the most fibre, which is an important part of a healthy diet. Fibre is not just important for good gut health and functioning: it is also associated with a lower risk of cardiovascular disease, type 2 diabetes and bowel cancer.

Starchy foods should be eaten regularly and you should aim to include one portion with each meal. Where possible higher-fibre starchy foods, such as wholegrain versions of bread, rice, other grains (barley, oats, buckwheat, bulgur, etc.), and breakfast cereals, should be consumed. Beans and pulses, seeds and nuts are also good sources of fibre and can help increase the amount, as well as the variety, of fibre we consume. The recommendation is to eat 30 grams of fibre a day but most people only eat an average of 18 grams a day. It is advisable to increase the amount of fibre consumed gradually and to drink plenty of fluids.

There are different types of fibre and each type behaves differently in your gut. Some types of fibre help make your stool bigger and easier to pass, which might help avoid constipation. Other types of fibre are digested (broken down) by your gut bacteria, producing substances that can be beneficial to your gut health. They might also produce gases, which can

cause bloating. People respond differently to different types of fibre and it is worth noting that many foods contain more than one type of fibre.

High-fibre foods are also beneficial because they have a lower glycaemic index. Glycaemic index is a measure of the rate at which certain foods cause blood sugar to rise after they have been eaten. High glycaemic index food such as sweets and white (refined) starchy foods release a lot of sugar quickly, which your body has to use up or else it gets stored as fat.

A certain amount of protein is needed and can be obtained from many different sources including beans, pulses, fish, eggs and meat. Protein should be eaten in moderation. To avoid excess fat choose lean meat or remove excess fat and remove the skin from chicken. Milk and dairy foods are a rich source of calcium. Calcium is needed for healthy bones and teeth and it is recommended to have three servings a day from this food group. Only a small proportion of foods should be made up of fatty and sugary foods.

To maintain a healthy diet and lifestyle, in addition to eating the correct foods, it is also important to be aware of other factors. These include:

- Maintaining a fluid intake at around two litres per day and ensuring plenty of that is water.
- Monitoring portion sizes. It can be easy to get in the habit of large portion sizes. A rule of thumb for a meal is a fist-sized portion of carbohydrate and palm-sized portion of protein.
- Minimising fizzy or sugary drinks, including fruit juice. Choose low calorie drinks or water.
- Limiting alcohol intake to 14 weekly units for men and women.
- Avoiding or reducing intake of certain foods such as sweets, cakes, crisps, chocolate, processed meats.
- Aim for less than six grams of salt per day and try to avoid adding salt to food.
- Eating at least five portions of fruit and/or vegetables per day.
- Eating at least two portions of fish per week, one of which should be oily (eg mackerel, trout, sardines, kippers or fresh tuna).
- Replacing saturated fat (solid at room temperature) with polyunsaturated or mono-unsaturated fat (liquid at room temperature).

CAN A VEGETARIAN DIET BE HEALTHY?

A balanced vegetarian diet can be very healthy, particularly if adequate amounts of food such as beans, lentils, pulses, cheese and eggs are included to provide the necessary protein. But following a very restrictive diet can lead to nutrient deficiencies so if you choose to follow a strict diet which excludes all animal products, it may be advisable to take vitamin supplements to avoid vitamin deficiencies. It may also be worth consulting a dietitian (refer to the end of this leaflet for an explanation of the differences between a dietitian and a nutritionist).

IS A 'CLEAN DIET' HEALTHY?

There are many examples of 'clean diets' on the internet and in the media. However as with all extreme diets you have to be very careful that you do not reduce or remove essential food groups as this can lead to malnutrition and health problems in the long term. In general, following a diet found on the internet, or a diet without any evidence to back up its claims, should be avoided. For most people, following a well-balanced diet and lifestyle as outlined above is more than enough to ensure good ongoing health.

DO I NEED TO TAKE VITAMINS OR SUPPLEMENTS?

A healthy balanced diet contains all the vitamins you need. On the whole, doctors agree that taking supplements of extra vitamins have no value to your health for the overwhelming majority of us in the Western world. Do not be misled by advertisements about vitamin supplements that suggest that you will, in some way or another, feel better for taking these products; it is better to consume these minerals and vitamins in food rather than tablet form, unless you have been advised otherwise by your doctor.

FOOD MONITORING - HOW AND WHY?

Food monitoring can be a useful way to keep track of what and how much you are eating. It can be useful to keep a food diary and at the end of the day record what you have eaten, including any snacks and drinks. It can help people to identify parts of their diets that could be improved or changed to help them achieve a healthier diet, healthier lifestyle and weight loss if needed. Food and symptom monitoring can also be useful if you are suffering from digestion or gut issues to help identify possible trigger foods. If you are concerned about any gut symptoms you should seek advice either from a specialist dietitian or your GP.

CAN STRESS AFFECT MY DIET?

Stress is a normal response from your body to help you handle difficult situations or threats. Temporary stress is not usually a problem but being constantly stressed can lead to stress-related symptoms and affect your health, including the health of your digestive system. Stress can also have an impact on your diet, by making you miss meals or consume unhealthy foods. The gut and the brain are closely linked and can affect one another. Persevering with a balanced healthy diet during stressful times might help alleviate some of the symptoms of stress.

It is worth exploring ways to manage stress and there are a number of approaches and techniques described online and in books. A starting point could be the NHS Choices website, which has a section on recognising and managing stress.

HOW IMPORTANT IS FOOD HYGIENE?

Poor hygiene can certainly increase your chance of getting food poisoning. Food poisoning is usually a short-lived illness but it can be very unpleasant while it lasts. Always wash your hands after visiting the toilet and before handling food. Care should be taken with storage of food, particularly in hot weather. Certain foods, especially raw meat, must be kept covered, separated from other foods and well refrigerated. It is best practice to follow the guidance provided by food manufacturers' 'use by' and 'best before' dates. While some of these are used to specify when the food will be at its best, it can be risky to eat meat after the stated date. When reheating food, make sure it is hot all the way through (e.g. into the middle of a pie or down to the bone in a chicken leg) to kill all bacteria: if it's cold or you can see blood, don't eat it. This is particularly important when using a microwave oven or a barbecue.

WHEN SHOULD I SEE A GP ABOUT STOMACH TROUBLE?

All of us have short-lived gut problems from time to time. For the most part this settles down by itself and should give no cause for concern. However you should see your GP about:

- A sudden but persistent change in the pattern of how your bowels work
- Bleeding from the back passage
- Increasing heartburn, indigestion or stomach pain

-
- Losing weight unexpectedly
 - Persistent vomiting
 - Difficulty swallowing

All these are especially true if you have a family history of significant gut illness. You should also see your GP if you have been taking a remedy obtain from a pharmacy for more than 2 weeks without experiencing any improvement to your symptoms.

WHAT RESEARCH IS NEEDED?

- What is the impact on the gut and on general health of some of the most popular diets?
- How do our diet and gut bacteria interact and how does that interaction affect our gut and general health?
- How does diet and specific food components affect appetite and satiety (feeling of fullness)?
- How do dietary requirements change as we age?
- How does diet interact with physical activity and how does that interaction affect our gut and general health?
- How does diet affect the risk of developing some diseases?
- What are the links between food and mood?
- Why do some people gain weight more easily than others?
- Do food preservatives and other components of processed foods play a role in gut health, general health or weight gain?
- Are there life-style or dietary factors (apart from smoking and alcohol) that cause reflux, diverticular disease, gallstones and other disorders?

About Guts UK

Guts UK's vision is of a world where digestive disorders are better understood, better treated and everyone who lives with one gets the support they need.

Our mission as Guts UK is to provide expert information, raise public awareness of digestive health and transform the landscape for research into our digestive system to help people affected by diseases of the gut, liver and pancreas.

WE ARE PASSIONATE ABOUT OUR GUTS. COME ON BOARD AND JOIN US.

This charity was set up to change something – to increase the levels of research into diseases of the gut, liver and pancreas so no one suffers in silence or alone. Since 1971 we have funded almost 300 projects and invested £14 million into medical research that leads to better diagnoses and treatments for the millions of people who are affected by digestive diseases and conditions.

But we still have much more to do.

Will you support Guts UK?

Give a donation today and play your part in the next vital research that will change things for future generations of people affected by the frustration and misery of digestive disease.

Together we can make more important change happen. Vital answers, new treatments and hope.



FIND OUT MORE
visit gutscharity.org.uk

DONATION FORM

You can donate by filling in the form below and sending it to **Freepost RTJK-YYUL-XXSZ, Guts UK, London NW1 4LB**, online at **gutscharity.org.uk**, by calling us on **020 7486 0341** or by texting **GUTS18** and your donation amount to **70070**

DONATING IS EASY

- 1** Choose whether you want to make a one-off donation, or make regular donations.
- 2** Enter your details in the form below.
- 3** Send this form, via Freepost to us or call us to take payment.

YOUR DETAILS

Name

Address
 Postcode

Tel Email

MAKE A ONE-OFF DONATION

Card no Expiry / Sec code

Address (if different from above)

Please call me on to take my details

I would like to support GUTS UK with a donation of

£5 £10 £25 £50 £100 £500 Other

SUPPORT BY REGULAR GIVING

Instruct your Bank or Building Society to pay by Direct Debit. Please fill in the form in ballpoint pen and send to: **Freepost RTJK-YYUL-XXSZ, Guts UK, London NW1 4LB**



Name(s) of Account Holder(s)

Bank/Building Society Accu No. Sort code

Name and address of your Bank or Building society

Branch name:

Address:

Postcode:

Contact number

Guts UK reference

0013 /

Instruction to your Bank or Building Society

Please pay Guts UK Direct Debits from the account detailed in this instruction subject to the safeguards assured by the Direct Debit Guarantee.

I understand that this instruction may remain with GUTS UK and, if so, details will be passed electronically to my Bank/Building Society.

Signature(s) Date

Payment date (not 31st) Amount

Note:
Banks and Building Societies may not accept Direct Debit instructions for some types of accounts.

giftaid it **Please turn every £10 you donate into £12.50 - at no extra cost to you!**
I am happy for all gifts of money that I have made to Guts UK charity (Core) in the last four years and all future gifts of money that I make to be Gift Aid donations. I am a UK taxpayer and understand that if I pay less Tax & Capital Gains Tax in that tax year than the amount of Gift Aid claimed on all my donations across all charities, it is my responsibility to pay any difference. Guts UK charity claims 25p for every £1 you donate from the tax you pay for the current tax year. *If your circumstances, name or address change, please do let us know.*

Add Gift Aid Signature(s) Date

WOULD YOU LIKE US TO STAY IN TOUCH?

By post By email By telephone

RECEIPT DETAILS

I require a receipt for this donation