

This fact sheet aims to identify the main age-related changes and conditions affecting the digestive system; it will also outline healthy eating and physical activity that may help prevent, or delay, onset of these changes/conditions.

Age-related changes and conditions

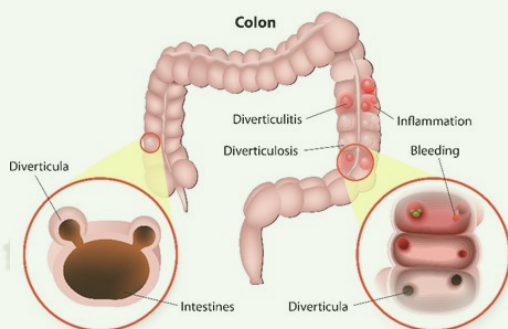
As we age, there is a natural decline in body composition, including the digestive system. The gastro-intestinal tract is altered with age at all levels: In the nose and mouth, there is a reduction of the sense of smell and taste, gum recession and sometimes difficulty in swallowing, which can alter our appetite and/or food intake. Our stomach, pancreas and gut become more rigid, and digestive enzymes become less active. This affects the breakdown and absorption of many vitamins and minerals, and slows down food transit, which can lead to constipation and contribute to reduced appetite. As a consequence of change, other age-related issues may include: dry mouth, acid reflux, ulcers, reduced ability to process tough fibres, and issues from medication (e.g. nonsteroidal anti-inflammatories (NSAIDs) such as ibuprofen can increase risk of stomach bleeding and ulcers).

Digestive tract diseases can occur in people of all ages e.g. IBS (Irritable Bowel Syndrome) and IBD (Inflammatory Bowel Disease), however, symptoms can worsen with age. Age-related digestive tract diseases include a higher risk of digestive tract cancers (e.g. oesophageal, stomach, colon), and diverticulosis.

Diverticulosis

Diverticulosis is characterised by small pouches (diverticula) in the lining of the colon which bulge out along weak spots in the intestinal wall. Diverticulosis is common; by age 60 around half of the population have diverticulosis. Many people have no symptoms however, when the pouches become inflamed or infected, the condition is known as diverticulitis and can cause acute pain, nausea and vomiting, fever, abdominal tenderness, constipation or diarrhoea.

Mild diverticulitis can be treated with rest, antibiotics, and dietary changes however, surgery may be required for severe or recurring diverticulitis.



Cancer

Cancer can develop at any age; however, cancer is much more common in older adults. Almost 90% of cancer cases, for most cancers, in the UK are in people 50+. It is thought that around 40% of cancer cases in the UK could be prevented by living and eating more healthily, particularly digestive system cancers. There is comprehensive information about cancer available from [Cancer Research UK](#) and the [World Cancer Research Fund](#).

Did you know? . .

The stomach uses hydrochloric acid to digest food, which is highly corrosive with pH 3 (neutral is pH 7 e.g. water). The stomach protects itself with a thick layer of mucus; without that layer, the stomach itself would be digested by stomach acid. This is why a break in the mucus with e.g. ulcers, can be so painful.

Key nutrients

Key nutrients to maintain a healthy immune system include:

- ◆ Carbohydrates, particularly fibre
- ◆ Water
- ◆ Omega-3 PUFAs
- ◆ Vitamins A, D, E, B1, B2, B3, B6, Folate, B12
- ◆ Calcium
- ◆ Iron
- ◆ Zinc
- ◆ Copper
- ◆ Iodine

Carbohydrates, particularly fibre, are essential to keep the digestive tract healthy and functioning, helping to prevent constipation and difficulty swallowing. Keeping hydrated combats reduced feelings of thirst; water aids swallowing and keeps food moving through the digestive tract. Water can also help reduce the effects of blunted taste and smell, as can zinc, fats and salt (salt and fats may make foods tastier however, keep these nutrients within guideline limits).

Omega-3 PUFAs, vitamin B1 and zinc can all help with reduced appetite. Vitamins A, D, E, B1, B2, B3, B6, Folate, B12, C, calcium, iron, zinc, copper and iodine all help with absorption of key nutrients into the body.

Main factors increasing risk of digestive system related issues & conditions

- ◆ **Smoking and excess alcohol**
- ◆ **Family history**
- ◆ **Gender/hormones** - e.g. females are at higher risk of IBS, whereas males are at higher risk of ulcers.
- ◆ **Age**
- ◆ **Physical inactivity**
- ◆ **Stress**
- ◆ **Late night eating**
- ◆ **Medications** - some medications may adversely affect the digestive system - ask your GP.
- ◆ **Uncontrolled diabetes**
- ◆ **Poor diet** - particularly fatty foods and fizzy drinks.
- ◆ **Too much salt** - can cause bloating.
- ◆ **Obesity** - can cause acid reflux and gall stones.
- ◆ **High blood pressure**

Foods to eat

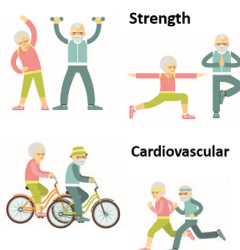
The digestive system is complex with many nutrients contributing to its function. Maintaining a healthy weight and eating a balanced diet, based on the "Eatwell Guide", will reduce risks of age-related digestive system conditions.

- ◆ Fruit and vegetables
- ◆ Wholegrains
- ◆ Oily fish
- ◆ Eggs
- ◆ Dairy products
- ◆ Nuts and seeds
- ◆ Lean red meat and poultry



Physical Activity

There are two types of physical activity: strength/resistance and cardiovascular. Both **strength** and **cardiovascular exercise** are essential to maintaining a healthy digestive system.



Tips . .

- ◆ **Over 50? Medical condition?** - consult a GP before starting an exercise programme.
- ◆ **Engage a personal trainer**; optimise YOUR needs, and YOUR health.
- ◆ **Warm up** before exercise and **cool down** after.
- ◆ **Do exercises correctly** to reduce risk of injury.

Micro nutrient	Food portion	approx. % DR
Vitamin A	Liver (30g)	100%
	Spinach (100g)	100%
	Sweet potato (100g)	100%
	Small/medium carrot (60g)	100%
Vitamin D	Most comes from the sun; supplement of 10µg per day for adults over 65.	
Vitamin E	Sunflower seeds (30g)	52%
	Almonds (30g)	51%
	Avocado (1 medium)	28%
Vitamin B1	Pork chop (lean, 1 chop - 170g)	100%
	Peas (cooked 100g)	33%
	Brown rice (boiled 150g)	33%
Vitamin B2	Beef (lean 70g)	56%
	Pork chop (lean, 1 chop - 170g)	42%
	Mushrooms (common, 100g)	33%
Vitamin B3	Tuna (tinned 100g)	90%
	Liver (70g)	80%
	Chicken breast (cooked, 90g)	80%
Vitamin B6	Most foods have some Vitamin B6, so it is rare to consume less than the daily requirement.	
Folate	Green soya beans (edamame) (150g)	100%
	Spinach (100g)	50%
	Lentils (50g)	45%
Vitamin B12	Most meats (100g)	100%
	Sardines (tinned 100g)	100%
	Fortified foods (check serving size %)	100%
Vitamin C	Strawberries (15g)	100%
	Broccoli (100g)	100%
	Bell pepper (100g)	100%
Calcium	Cheese (parmesan 30g)	50%
	Milk (semi-skimmed 250mL)	45%
	Sardines (tinned 100g)	35%
Iron	Beef (lean 70g)	44%
	Lentils (50g)	43%
	Liver (70g)	40%
	Spinach (100g)	31%
Zinc	Oysters (cooked per oyster)	95%
	Beef (lean 70g)	80%
	Lentils (50g)	25%
Copper	Liver (50g)	100%
	Sesame seeds (50g)	100%
	Cashew nuts (30g)	50%
Iodine	Dried seaweed (10g)	100%
	Cod (90g)	70%
	Baked potato (medium cooked with skin)	50%

This table provides a rough guide to foods containing key micronutrients with the approximate % of daily requirement (%DR); this is not a comprehensive list.

See related Fact Sheets for more information on [Macronutrients](#), [Micronutrients](#), [Water](#), [Age-related changes - body, mind and lifestyle](#), [Common age-related clinical conditions](#), [Tips for healthy eating](#), [Tips for a healthy lifestyle](#), [Tips on physical activity for active ageing](#), [Fibre](#) and [Digestive issues? Some tips.](#)

To see our detailed nutritional guide and example exercise programme, visit our [website](#)

