

# Information for patients and carers

**Nutrition as part of long-term pain  
management.**

**A guide for the outpatient pain service.**



## Who is this leaflet for?

The content of this leaflet is aimed at people living with long term pain, who are attending the outpatient pain management service. It may also apply to some in-patients who have been considered suitable.

It is not necessarily suitable for people with an active cancer or those who are diagnosed with a gastrointestinal condition. If this applies to you, please seek or follow guidance of the specialist teams looking after these issues.

## Why is nutrition important in pain management?

We all know that what we eat can affect our health, and research shows that there may be a specific link between diet and pain.

Many patients in pain have a limited diet. There are many reasons for this for this including, depression, reduced appetite or lack of awareness of the role that diet plays in pain management. Good nutrition can reduce inflammation, improve your gut health and improve constipation. Understanding the relationship food has with your body can help improve your general health and pain.

## What is the evidence linking pain and nutrition?

Research shows the food you eat is an important part of your pain management plan. The nervous system has an inbuilt capacity to reduce pain but needs enough of the right nutrients and vitamins to work well. Low levels of these can cause pain problems, for example the neurotransmitter serotonin, which is important in your body's inbuilt pain control system, relies on vitamin D to be produced. Also, healthy fats, such as olive oil can reduce inflammation, and unhealthy fats in fried and processed food increase inflammation.

A growing area of research looks at gut health and the link between your gut, brain and pain. Gut bacteria that naturally live in your gut, known as the gut microbiome, can cause changes in how your brain reacts to many stimuli including pain. Gut bacteria produce many

neurotransmitters such as dopamine and norepinephrine, which play an important role in mood, anxiety, concentration, reward, and motivation.

Remember it's important to take an individual approach and if you have a diagnosed gastrointestinal issue, please seek or follow Drs advice on diet.

## What has the research found?

Using research, the International Association for the Study of Pain has made recommendations that can be used to help patients living with pain:

### Eat food with colours of the rainbow:

- Eat many colours of fruit vegetables including nuts seeds beans lentils and whole grains. These include a range of vitamins, minerals, antioxidants and fibre
- The NHS recommends 5 varied portions of different fruits and vegetables

### Increase healthy fats and decrease unhealthy fats to reduce inflammation:

- Include foods high in omega 3 these include salmon, seeds, walnuts, eggs, and avocados
- Limit foods high in Omega 6 such as vegetable oils, processed food, processed meats
- Reduce ultra processed foods, such as premade meals, crisps
- Consider a fish oil or flax seed supplement

### Include fibre in your diet:

- Fibre is important for proper digestion and maintenance of a healthy microbiome and weight management
- Include/swap to wholegrain products such as wholemeal bread, brown rice, oats, beans and pulses
- When increasing fibre intake, it is important to increase fluid intake as fibre and fluid work together in promoting bowel health

### **Reduce and limit ultra-processed foods and sugar intake:**

- These foods and drinks contain high amounts of energy and very low (or no) amounts of beneficial nutrients.
- These foods can increase inflammation and oxidation which can worsen pain experiences
- Swap sugary drinks for water or unflavoured mineral water
- Choose snack options such as fruit, vegetable sticks or oatcakes with hummus.
- Avoid products such as yogurt with added sugar
- Instead of take-away foods, try cooking at home more often

### **Feed your good gut bacteria:**

- Fermented foods have good bacteria that help your immune system and bowel movements
- Try to include yoghurt, kefir, kombucha and food such as wholegrains to feed your gut bacteria. Chose sugar free products
- Eat whole grains, wholemeal bread, brown rice wholemeal pasta, oats
- Limit sugars as these feed unhealthy gut bacteria and can increase inflammation

### **Drink mostly water:**

- Staying hydrated makes everything function better, aim for 8 to 10 cups a day
- If you don't drink enough water, you can get dehydrated easily. This can increase fatigue, headaches, and irritability

### **Prepare food at home:**

- Cooking food yourself stimulates your digestive system
- When you cook at home you can control the quality and variety of your food
- Eating at a table with others in a relaxed state promotes good digestion.

## Try to limit analgesia/pain-relief:

- Please follow medical advice so this can be achieved safely
- Ibuprofen, aspirin and naproxen can damage the gut lining causing inflammation and increasing the risk of ulcers
- Morphine, codeine, co-codamol frequently cause constipation
- They reduce the production of your body's natural pain relieving chemicals
- Gabapentin can increase appetite, food craving and a cause a slower metabolism

## Be patient with yourself. Every change helps, even small ones.

### In summary:

- Eat a variety of fruits and vegetables (eat a rainbow)
- Eat good quality fats
- Limit unhealthy fats
- Include fibre in your diet
- Reduce sugar and hidden sugars
- Reduce ultra processed foods
- Keep hydrated
- Look after your gut

## Contact details

Should you require further advice or information please contact [Pain.management.@lthtr.nhs.uk](mailto:Pain.management.@lthtr.nhs.uk).

## Sources of further information

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

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

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

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

<https://painconcern.org.uk/diet-and-pain/file:///H:/gut/European-Year-2020-Nutrition-and-Chronic-Pain-Fact-Sheet.pdf>

[www.bhf.org.uk/information-support/heart-matters-magazine/nutrition/fibre/fibre-swaps](http://www.bhf.org.uk/information-support/heart-matters-magazine/nutrition/fibre/fibre-swaps)  
[www.nhs.uk/live-well/eat-well](http://www.nhs.uk/live-well/eat-well)

Follow us on social media @lancshospitals

**Lancashire Teaching Hospitals NHS Foundation Trust is not responsible for the content of external internet sites.**

All our patient information leaflets are available on our website for patients to access and download:

[www.lancsteachinghospitals.nhs.uk/patient-information-leaflets](http://www.lancsteachinghospitals.nhs.uk/patient-information-leaflets)

Lancashire Teaching Hospitals is a smoke-free site. Smoking is not permitted anywhere on any of our premises, either inside or outside the buildings. Our staff will ask you about your smoking status when you come to hospital and will offer you support and advice about stopping smoking this will include Nicotine Replacement Therapy to help manage your symptoms of withdrawal and the opportunity to speak to a nurse or advisor from the specialist Tobacco and Alcohol Care Team. If you want to stop smoking, you can also contact Smokefree Lancashire on Freephone **08081962638**

**Please ask a member of staff if you would like help in understanding this information.**

**This information can be made available in large print, audio, Braille and in other languages.**

**Department:** Integrated Pain management

**Division:** DCS

**Production date:** November 2023

**Review date:** November 2026

**JR 1055 v1**