

Food News

Volume 9, issue 3

March 2023

Welcome to Food News. With Ramadan about to start this month we will take a look some of the key points surrounding Ramadan, fasting and maintaining good nutrition and wellbeing.

A Polish Dietetic Student has also written an article on lacto-fermented foods, which are popular in Polish diets, and how these may benefit our guts. As always, we will take a look at what foods are currently in season and discuss a topic that's been in the media lately... a new weight loss jab!



Inside this issue:

Special Feature— Ramadan and Nutrition	2-3
Lacto-fermented foods and the gut	4-6
What's in season	7
What's in the media	8-9
Further reading	10

Warwickshire Food Forum

Food News is produced by the education & choice sub-group of Warwickshire Food forum.

The forum is a multi-agency partnership aiming to improve food choices for people in Warwickshire.

The focus is on making food affordable, sustainable and providing information to help people make healthy choices. The group will also ensure that there is Warwickshire wide help for people who have difficulty affording food.

Special Feature

Ramadan and Nutrition

Many Muslims worldwide are preparing for this years Ramadan, a holy period of 29-30 days, which is due to start at the end of this month. The ninth month of the lunar-based Islamic calendar is characterised by additional prayer, spiritual reflection, the spread of generosity to the community, kindness and fasting.

Fasting of food and drink takes place from dawn to sunset and due to Ramadan falling on different dates each year, the length of day, and therefore the time spent abstaining from food and drink, will vary. This year fasting time in UK will be approximately 14-16 hours per day, leaving 8-10 hours open for consuming food and drink. Generally,



Muslims will have a meal at dusk (Iftar) and a meal at dawn (Suhoor) but are permitted to eat and drink between these times too, whilst in night time hours. Eid Al-Fitr is the celebration which takes place to break the fast at the end of Ramadan.

The purpose of fasting is to remind Muslims of the less fortunate and to reinforce the need to be thankful. Fasting during the month of Ramadan is mandatory for all healthy adult Muslims, however, there is exemption for children who have not reached puberty, the elderly, those who are physically or mentally unwell where fasting would be detrimental to their health, pregnant or breastfeeding women and women who are menstruating. Exemption is given to those with acute illness if disease state is known to be aggravated by fasting or advised by a clinician. For example, people with Type 1 Diabetes Mellitus or uncontrolled diabetes are advised against fasting due to the inherent risk of hypoglycaemia/hyperglycaemia.

So, what actually happens to our bodies during and after a fast?

Generally, blood glucose levels will decrease whilst fasting as new sources of glucose (carbohydrates) are not consumed. Low blood glucose levels trigger the pancreas secrete to glucagon, a hormone which promotes the breakdown of storage energy (glycogen) to make it available to use (glycogenolysis). This process occurs mainly in the liver. This process is then followed by the generation of glucose from non-carbohydrate stores instead, such as fats and proteins (gluconeogenesis) and occurs mostly in the liver and kidneys and essentially breaks down proteins and fats (proteolysis and lipolysis thus catabolism).

Although this may not sound negative, some disease states already accelerate this process and therefore any additional exacerbation of this can cause further detriment to health. In addition, our bodies do not intend on using fats and proteins as primary sources of energy and so this can cause some side effects such as fatigue, headache, dizziness and irritability or low mood.

Special Feature

Ramadan and Nutrition

Considerations for wellbeing:

If you are not fasting but you have a friend, colleague or patient who is, be mindful of how they may be feeling during this time. As mentioned, they may feel more fatigued and irritable during the day or ‘a bit off’ with a headache. They may have had less sleep than normal to accommodate prayer and eating during night time hours. Try to be empathetic, patient and allow them to have space if needed; reflection is a key part of Ramadan and therefore colleagues may prefer time alone during breaks so don’t be offended if this is the case. Equally, Muslim friends, colleagues and patients should communicate how they are feeling to support others around them to understand.

It is important to note that some patients may wish to fast despite being exempt. Their wishes should be respected and support/adjustments to treatment should be offered to them to reduce their risk as much as possible. If it is felt that fasting would be detrimental to their health it is encouraged that clear explanations are provided so that the patient can make an informed choice. Be aware that it can be emotionally challenging for those who are exempt from fasting to eat and drink when their friends and family are fasting.



Considerations for health:

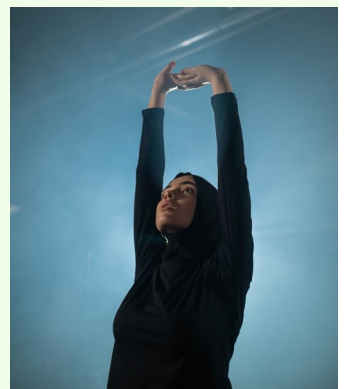
First and foremost it is essential that fasting Muslims ensure adequate hydration and therefore drink plenty during night time hours. It is recommended to sip small, frequent drinks rather than to take large boluses. It is also recommended to avoid salty and processed foods and added salt, as excess salt can contribute to dehydration and thirst.

For people who normally consume caffeine it is recommended that they reduce their intake in the weeks prior to Ramadan to prevent sudden withdrawal which can contribute to headaches.



As total intake of food is normally reduced during Ramadan, so to is fibre intake. Along with not having fluid during the day this can lead to constipation. It is therefore advised to ensure foods eaten in the night are rich in fibre, including fruits, vegetables and wholegrains. Meals often include fattoush, dhal, salad or tabbouleh which are fibre rich. Similarly, as food intake is generally reduced, consequently so too might micronutrient intake and therefore meals should be varied and nutritious, otherwise a multivitamin may be beneficial.

Finally, as risk of hypoglycaemia and dehydration is greater during fasting, it is recommended that vigorous exercise is reduced or avoided, depending on usual training status. During Ramadan exercise should be low intensity.



Lacto-fermented foods and Gut Microbiota

A Dietetics Student from Poland would like to take the opportunity to share some knowledge about traditional Polish foods, dill pickles and sauerkraut, which undergo lacto-fermentation. In this article, the fermentation process is described and why fermented foods have health benefits is discussed.

Fermentation is known as one of the oldest methods of food processing, which was used to increase shelf life. In recent research several benefits of consuming lacto-fermented foods have been highlighted.



So what is lacto-fermentation?

Lacto-fermentation is a specific type of fermentation that uses lactic-acid-producing bacteria (primarily from the *Lactobacillus* genus), and some yeasts. During this type of fermentation *Lactobacillus* bacteria break down carbohydrates (sugars) in food to form lactic acid and sometimes carbon dioxide or alcohol. This creates an acidic, low-oxygen environment which encourages the growth of good bacteria and prevents the growth of bad bacteria and other microorganisms.

Influence of lacto-fermentation on gut microbiota



There is currently a lot of interest in how consuming fermented foods affects our gut microbiota, which is made up of trillions of microorganisms that live in our gut and have a significant impact on health.

Fermented foods, like sauerkraut and dill pickle, are rich in both prebiotics and probiotics, especially if homemade*. Eating foods high in pre- and probiotics is one approach to alter your microbiome. Prebiotics are, in general, foods rich in fibre and other nutrients that our microbiota likes to feast on and that provide health benefits. Probiotics, on the other hand, are living microbes that, when consumed, increase the number of 'good' bacteria in your gut.

A diet rich in fermented foods enhances the diversity of gut microbes, which can reduce inflammation, according to researchers at the Stanford School of Medicine. Here, researchers conducted a clinical trial on a group of healthy adults who were randomly allocated to a 10 week 'fermented' or 'high fibre diet'. The two diets resulted in different effects on the gut microbiome and the immune system. The group consuming fermented foods had reduced activation of 4 types of immune cells as well as decreased inflammatory markers in their blood samples, whilst the same results were not observed in the high-fibre group. This research suggests that lacto-fermented foods is more effective in the short term at rapidly altering the gut microbiome and improving immunity responses, however it is important to remember that high-fibre diets are associated with reduced rates of mortality in the long-term.

Lacto-fermented foods and Gut Microbiota

In addition to the positive effects on immunity, increased diversity of gut microbiota through consumption of fermented foods has also been linked to supporting weight maintenance. This may be due to improved digestion and also as the high fibre content contributes to satiety and supports regular bowel movements (prevents constipation). What is more, the sour taste may decrease desire to snack.

Most popular fermented foods from around the world:

- Sauerkraut (Poland, Germany, Ukraine, Bulgaria, Russia, Hungary, Romania, Croatia, Czech Republic, Latvia, Lithuania, Slovakia, Slovenia): 'sour cabbage'.
- Fermented pickled cucumber/ Dill pickle (Poland): 'sour cucumber'.
- Kombucha (China): a fermented, lightly effervescent, sweetened black or green tea drink.
- Kefir (Russia, Belarus, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, and Ukraine): a type of fermented dairy product, made by adding bacteria and yeast cultures to milk.
- Yoghurt (known around the world): a food produced by bacterial fermentation of milk.
- Kimchi (Korea): side dish of fermented vegetables, such as napa cabbage and Korean radish with seasonings like ginger, garlic, chili peppers, fish, and salt.
- Tempeh (Indonesia): fermented cooked soya beans, eaten as a vegetarian alternative to meat.
- Miso (Japan): traditional seasoning; a thick paste produced by fermenting soybeans with salt and kōji and sometimes rice, barley, seaweed, or other ingredients.
- Natto (Japan): dish consisting of fermented soybeans, characterised by a slimy, sticky and stringy texture



Lacto-fermented foods and Gut Microbiota

*Traditional Polish recipe for dill pickles

Ingredients:

- 1 tablespoon mustard seeds
- 2 cloves garlic, peeled, divided
- 1 stem dill (with seeds)
- 8 to 10 pickling cucumbers, washed and dried
- 2 tablespoons pickling salt (or kosher salt)
- 1L bottled water



Place mustard seeds, 1 clove garlic, and dill in a sterilized 1L jar.

Tightly pack pickling cucumbers in jar, positioning the last one horizontally to help keep cucumbers below brine. Top with remaining garlic clove.

Dissolve salt in water. Fill jar with saltwater within 5mm from the top. Cover jar loosely with a sterilised cap and keep in a cool, dark place. The jars must not be closed too tightly because as fermentation takes place, the accumulated carbon dioxide must be able to escape. Some oozing of brine is unavoidable, so place jar on a plate or tray and store in a place where seepage won't be a problem.

Fermentation typically takes five to six weeks. When fermentation is complete, tighten lids. If lids are tightened too early, trapped carbon dioxide will make pickles mushy; if lids are not tightened after fermentation, spoilage can occur.

Once opened, place pickles in refrigerator, where they will last four to six months.

What's in Season?

Here is a list of what fruit and veg are in season in March

Fruit	Vegetables
Rhubarb	Artichoke, Beetroot, Cabbage, Carrots, Chicory, Leeks, Parsnip, Purple Sprouting Broccoli, Radishes, Sorrel, Spring Greens, Spring Onions, Watercress

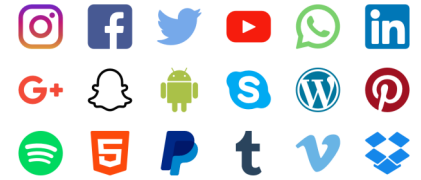
Cooking in season You'll notice these ingredients are more abundant in supermarkets and market stalls this month, so here is a tasty seasonal recipe to try.

Tofu and Chickpea Curry with Spring Greens (serves 4)

Ingredients:

- 1 red onion
 - 3 garlic cloves
 - 200g tofu
 - 1 fresh chilli
 - 200g spring greens
 - 1 tbsp vegetable oil
 - 1 tbsp ground coriander
 - 2 tsp ground cumin
 - ½ tsp cayenne pepper
 - 1 tsp turmeric
 - 1 x 400g tin of chopped tomatoes
 - 2 tbsp olive oil
 - 1 x 400g tin of chickpeas
 - 2 teaspoons paprika
 - 2 teaspoons garam masala
 - ½ a lemon
 - 2 teaspoons cumin seeds
1. Peel and finely slice the onion. Peel the garlic, then finely chop 1 of the cloves and finely slice the rest. Cut the tofu into cubes. Finely slice the chilli, and shred the spring greens.
 2. Heat the vegetable oil in a pan, add the onion and chopped garlic, and cook gently until the onion begins to brown.
 3. Add the ground coriander and cumin, cayenne and turmeric. Cook for 1 minute. Stir in the tomatoes and half a tin of water. Simmer for 10 minutes.
 4. Meanwhile, heat 1 tablespoon of olive oil in a frying pan and cook the tofu until golden brown. Drain on kitchen paper.
 5. Drain, rinse and stir the chickpeas into the tomato sauce, heat through, then add the paprika, garam masala, lemon juice and seasoning to taste, plus more water if it looks too dry. Add the tofu.
 6. Heat 1 tablespoon of olive oil in a pan. Add the cumin seeds and fry gently to release the aroma, then add sliced garlic and chilli.
 7. When the garlic begins to brown, add the spring greens and stir-fry for 2 to 3 minutes, until just cooked. Serve with the tofu and chickpea curry.





What's in the media?

The 'Game-Changing' Weight Loss Drug

Over the past month there has been a lot of coverage about a '**game-changing**' weight loss drug and it's role in the fight against obesity. Semaglutide (sold under the brand name Wegovy) hit the headlines when news broke that it would be reaching the high street for purchase in UK chemists.

Is it really this simple and how safe is it?

Semaglutide works by activating glucagon-like peptide-1 (GLP-1) receptors to increase insulin secretion and suppress glucagon secretion which slows gastric emptying. This suppresses appetite and in turn should reduce overall calorie intake and subsequently result in weight loss. Lower doses of the drug is already widely used to manage Type 2 Diabetes, under the brand name Ozempic. Trials have found that those taking Semaglutide compared to placebo consumed 35% fewer calories and lost on average 12% of their body weight and reduced their risk of developing Type 2 Diabetes by more than half.



On 8th March 2023, **The National Institute for Health and Care Excellence (NICE)** published it's guidance on '**Semaglutide for managing overweight and obesity**' after the NHS approved its use for this purpose in the UK. Concerns have been voiced about the safety of having this medication available to purchase, however this will still require a prescription following a clinicians

assessment and will only be available to people meeting the **eligible criteria**, outlined by NICE. This criteria includes adults with a Body Mass Index (BMI) in the obese range and at least one obesity-related illness such as pre-diabetes, type-2 diabetes, high blood pressure, cardiovascular disease or obstructive sleep apnoea. Some adjustments to the BMI range can be made for higher risk ethnic backgrounds.

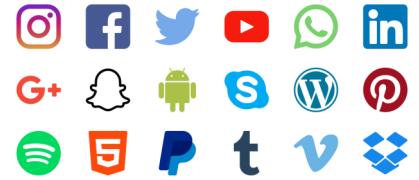
Doses are self-administered weekly in pre-filled pens therefore risk of incorrect dosing is minimal and administration is straightforward. It is used for a minimum of 16 weeks but will be discontinued if weight loss achieved is less than 5% of body weight within 6 months, or if it is poorly tolerated.

Having this screening process in place ensures that **only those who require weight loss to improve their health have access to the medication**. It is not available to the whole population, protecting potentially vulnerable people, such as those with eating disorders.

It is stressed within the guidance that the use of Semaglutide should be **alongside healthy lifestyle changes** including **healthy eating and exercise** and these should be central to ongoing care. This is inherently important as it is also recommended that the drug is only taken for 2 years, so healthy lifestyle changes will be essential to maintain weight loss in the long term.



What's in the media?



The 'Game-Changing' Weight Loss Drug

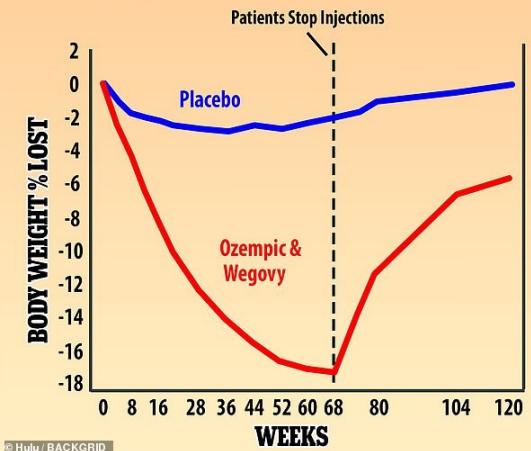
That all sounds great, so what are the downsides?

As with many drugs, Semaglutide has known side effects and these can include nausea, vomiting, fatigue, constipation, diarrhoea, gastrointestinal discomfort and less enjoyment from food, which can have an impact on mood, wellbeing and social experiences. The side effects are to be monitored by a clinician to review safe tolerance to the medication.

Another important factor to note is that whilst weight loss when taking Semaglutide has been shown to be significant, the trials have also shown that people regained two-thirds of their lost weight within 2 years after stopping the medication. With the guidance having a maximum usage term of 2 years, the long-term management appears unresolved, but may support patients with increasing physical activity through improved mobility and reduced pain.

WEGOVY USERS REGAIN LOST WEIGHT

Source: Diabetes, obesity and metabolism



So, is it as promising as the headlines are making out?

Within the UK one-third of adults are overweight and one-quarter are obese, which has huge knock-on effects not only on individual health but on the entire healthcare system and costs the UK approximately £6 billion each year in obesity-related conditions.

Help is needed to get this under control and NICE have described semaglutide as 'a welcome new treatment option for obesity', recognising that the only other type of pharmacological treatment option available, Orlistat, is poorly tolerated and rarely used. Other options may include bariatric surgery and gastric bands but these come with increased risks both from surgical complications and long-term nutrient deficiencies, increased hospital pressures and expense, and they do not guarantee successful weight management.



Not all obesity cases can be treated by lifestyle changes but the worry is that medication such as Semaglutide overlooks the importance of healthy eating and regular exercise for the general population and puts a bandage over the societal issues that are leading to obesity in the first place. Therefore, it is very important to note that whilst the release of this medication for the management of obesity is being deemed as a pivotal moment in healthcare, more research is still required to understand how best to help people to improve lifestyles. Changing the environment **to tackle the root cause of the obesity epidemic should remain top of the agenda** but having this clinically trialled, likely cost effective medication available to support those most at risk of further ill-health in the present moment does appear to be promising.



Warwickshire eating and drinking for health group.

Editor:

Emily Russell - Locum Dietitian

Lacto-fermented foods and gut microbiota article:

Adrianna Andryszak - Student Dietitian

Warwick Hospital, Lakin Road, Warwick,
CV34 5BW 5BW

Phone: 01926 495321 x4258

E-mail: dietitians@swft.nhs.uk

If you have an interest in food , hydration and health, and would like to join the Warwickshire Food Forum, please contact the editor.

If you would like more information about any of the articles in this newsletter, please contact the editor who will pass this on to the author of the article.

References, further reading and resources

Ramadan and Nutrition?

Frascina, C (2022). BDA. Ramadan and Diet. Accessed online (2023): www.bda.uk.com/resource/ramadan-and-diet.html

Jabir, I (2023). Ramadan. BDA Dietetics Today. March 23.

Lacto-fermentation

BBC (2021). Is fermented food really good for us? Accessed online (2023): www.sciencefocus.com/comment/dr-michael-mosley-is-fermented-food-really-good-for-your-gut-microbiome/

BDA—Fermented Foods. Accessed online (2023): www.bda.uk.com/resource/fermented-foods.html

Guts UK: Prebiotics and Probiotics. Accessed online (2023): www.gutscharity.org.uk/advice-and-information/health-and-lifestyle/prebiotics-probiotics/

Stanford Medical: Fermented-food reduce inflammatory markers. Accessed online (2023): www.med.stanford.edu/news/all-news/2021/07/fermented-food-diet-increases-microbiome-diversity-lowers-inflammation

Stiemsma L et al (2020). Does consumption of fermented food modify the human gut microbiota? The Journal of nutrition. 150 (7): 1680-1692.

Recipe accessed online (2023): www.thespruceeats.com

What's in season

www.jamieoliver.com/recipes/vegetables-recipes/tofu-chickpea-curry-with-spring-greens/

www.bda.uk.com/food-health/your-health/sustainable-diets/seasonal-fruit-and-veg-a-hand-guide.html

What's in the media

NICE (2023). Semaglutide for managing overweight and obesity. Accessed online: www.nice.org.uk/guidance/ta875

NICE BNF (2023). Semaglutide. Accessed online: bnf.nice.org.uk/drugs/semaglutide/#drug-action

The BBC: 'Weight loss drug semaglutide approved for NHS use' (8.3.23). Accessed online: www.bbc.co.uk/news/health-64874243

The Daily Mail: "Game-changing' weight loss jab Wegovy will be rolled out on NHS in weeks' (8.3.23). Accessed online: www.dailymail.co.uk/health/article-11831119/Game-changing-weight-loss-jab-2-5x-stronger-Ozempic-rolled-NHS-weeks.html