



PLAN AHEAD: Potatoes are a good source of gluten-free fuel.

Fuel Pains

Food intolerances won't spell an end to your PB; it just means you have to plan ahead. BY HARRIET EDMUND

AS A SPORTS dietitian and ultra marathon runner Stephanie Gaskell knows how important fuel is for getting the most out of your performance. She also knows that clocking long kilometres can cause some unwanted food pains.

"No runner wants to be held back because of stomach cramps, having to take a toilet stop, experiencing reflux and excessive wind, or feeling bloated," says the 2.56 marathoner. "But the fact is runners

suffer gastrointestinal symptoms more than any other athlete."

That's because when you're running blood flow is directed to your muscles rather than your stomach to help with digestion, your gastrointestinal hormones change, and in some cases the jarring nature of running can injure the intestinal wall.

What's more, runners with food intolerances such as fructose malabsorption, coeliac disease and

lactose intolerance, are more susceptible to stomach upsets on the run because the nervous system in the gut is already irritable.

No one knows why some people and not others develop food intolerances. Dr Sue Shepherd, advanced dietitian, author of the *Low FODMAP Diet* and director of Shepherd Works, says it can follow stress, travel, a nasty infection or be a genetic predisposition.

"There is also new evidence to suggest certain poorly absorbed carbohydrates may trigger symptoms," she says. These carbs – or FODMAPs – include fructose, lactose, fructans (chains of fructose sugars joined together), galactooligosaccharides and polyols. They are found in everyday foods such as wheat, apples, pears, onions and, more importantly for runners, in many sports drinks, gels and powders.

"For runners with food intolerances, there's no reason why your training can't continue as normal," says Gaskell, who suffered irritable bowel syndrome during her stressful university exams. "You just need to know exactly what your intolerance is, and plan ahead for what to eat and when."

Fructose Malabsorption

WHAT IS IT → Fructose is a sugar found in honey, fruit, some vegetables and corn-syrup. When the small bowel can't absorb fructose properly it can leave you feeling bloated, windy and fatigued. Dr Shepherd says while fructose malabsorption affects 30 to 40 per cent of the population, new research has found links with irritable bowel syndrome, so testing is required for correct diagnosis.

TEST IT → A hydrogen breath test measures the amount of gas (hydrogen or methane) produced in the breath after having a fructose high drink. The test usually takes about three hours where you blow into a machine every 15 minutes. There are many breath testing centres around Australia and New Zealand, or Stream Diagnostics can mail out a breath testing kit.

BEAT IT → Dr Shepherd developed the *Low FODMAP Diet* almost 10 years ago, which is wheat-free and avoids food that

contains excess fructose such as apples, pears, mangoes, watermelon and honey, as well as foods with lots of fructans such as wheat and rye, onions, leeks, shallots, garlic, chicory and dandelion tea.

RUN WITH IT → Many sports supplements are packed with fructose so it's important to *always* check the label, warns Gaskell. "Powerade and Gatorade sports drinks are safe, but be careful of other international brands that often use high fructose corn-syrup in their ingredients," she says. Refuel post-run with safe fruits including bananas, oranges or grapes, and some 100 per cent spelt or oat bread.

Coeliac Disease

WHAT IS IT → Coeliac disease is when the body develops an intolerance to gluten – a protein component of wheat, rye, barley and oats. If left untreated coeliac disease can not only derail your training, but lead to serious health risks including osteoporosis, infertility and cancer, which is why a strict, life-long, gluten-free diet is required. About one in 100 people have coeliac disease, but 75 per cent don't know they have it, according to The Coeliac Society of Australia.

TEST IT → A biopsy of the small bowel collects samples of the stomach lining for testing. Dr Shepherd, who was diagnosed with coeliac disease in 1996, warns it's important not to start a gluten-free diet before having a biopsy because it often results in misdiagnosis.

BEAT IT → "A strict gluten-free diet is very effective, but can be an overwhelming adjustment to make," she says. Some foods to avoid are wheat (including flour), barley, rye, oats, malt (including malt vinegar and beer), semolina and couscous. Many non-grain foods such as stock cubes, soy sauce and other condiments, processed foods and confectionary often also contain wheat.

RUN WITH IT → There are plenty of gluten-free foods to fuel your muscles before and after training such as rice, corn (also called maize), tapioca, potato, soy, millet, buckwheat (including soba) and quinoa. And you can still treat yourself to gluten-free sweets such as Dr Shepherd's Irresistible Gluten Free Lollies, the Jellygnite Range and Mr Marshmallow products – a great carb source for long distance hauls.

Lactose Intolerance

WHAT IS IT → Lactose is a larger sugar made up of two smaller sugars, glucose and galactose, found in cow, sheep and goat milk. Without enough lactase enzymes the small intestine can't digest lactose sugar normally causing diarrhoea, fatigue, weight loss and cramping. Different ethnic groups who stop making lactase enzymes during adulthood are commonly affected – about 90 per cent of the Asian population have lactose intolerances, compared with 10 per cent of Caucasian descent.

TEST IT → Much like fructose malabsorption, a breath test is taken

after drinking lactose and a blood sample also tests to see if a rise in blood glucose indicates lactase activity.

BEAT IT → Avoid milk, milk powder, milk solids, evaporated milk, yoghurt and ice-cream, advises Dr Shepherd. The good news: not every product made from milk contains lactose. For example hard cheeses are virtually lactose free and valuable sources of calcium. Remember, removing dairy from your diet completely may increase your risk of developing osteoporosis. So, it's important that soy and rice milk alternatives are fortified in calcium.

RUN WITH IT → Regular full cream milk has about 12 grams of carbs per serving in the form of lactose, which helps refuel muscles after running. But for lactose intolerant runners lactose-free, soy and rice milk products are great alternatives. Gaskell says for runners who like to refuel with a post-run shake, taking a lactase enzyme, available in drop and tablet form from pharmacies, will help with lactose digestion. **RW**

For video interviews with Dr Sue Shepherd and Stephanie Gaskell, visit runnersworldonline.com.au/video

QUICK FACT

Food intolerances affect women two to three times more than men and half are aged between 20 and 40.

Eat Right

IF YOU'RE A runner with food intolerances Stephanie Gaskell, Adelaide-based sports dietitian and ultramarathon runner, suggests these easy options to help avoid unwanted stomach upsets on your morning long run.

	FRUCTOSE MALABSORPTION	COELIAC DISEASE	LACTOSE INTOLERANCE
PRE-RUN (1-2 HOURS)	Banana with 125mL sports drink e.g. Gatorade or Powerade	Gluten-free toast with jam or honey and 300-600mL sports drink	Lactose free breakfast cereal bar and 300-600mL sports drink
LONG RUN	Water, Gels, supplements, drinks or bars (<i>Avoid fructose, fructo-oligosaccharides, inulin, fructan, corn-syrup, fruit juice concentrate and honey</i>)	Water, Gels, supplements, drinks or bars (<i>Avoid wheat, rye, barley, oats and other gluten-containing ingredients</i>)	Water, Gels, supplements, drinks or bars (<i>Avoid sports powder mixes with whey protein, milk and yoghurt</i>)
POST-RUN	Buckwheat pancakes with blueberries, yoghurt and a handful of nuts	Rice porridge with banana, cinnamon, honey and 250mL of low fat milk	Granola mixed with banana, nuts, cinnamon and soy yoghurt