One tablespoon of dietary fibre more

I read with interest the excellent article, 'Obstructive sleep apnoea and obesity', by Professor Hamilton and Dr Joosten (*AFP* July 2017).[1] I fully agree with the authors that weight-loss intervention with lasting lifestyle changes, especially in eating and physical activity, is a crucial factor in the prevention and treatment of obstructive sleep apnea (OSA).[2] There is one obesogenic aspect worth mentioning.

Current studies show that a negative association exists between dietary fibre intake and OSA severity (odds ratio: 0.84; 95% confidence interval: 0.71, 0.98; P <0.01).[3,4] Thus, patients with OSA who are obese eat about 15 g of dietary fibre per day,[4,5] which is only half of the international recommendations for total fibre intake for adults.

Most Australians also do not consume enough fibre. Despite the Australian dietary guidelines (www.eatforhealth.gov.au/guidelines), the average dietary fibre intake in Australia is currently 22.9 g/day.[6] A low fibre intake of 15 g or less per day is also associated with reduced lung function (forced expiratory volume in one second [FEV_1] and forced vital capacity [FVC]) and increased prevalence of airway restriction in individuals who are obese.[7] That means dietary consulting in clinical practice, and an increase in the consumption of dietary fibre, is not to be underestimated for patients with OSA who are obese. Beneficial effects include increased satiety, decreased energy intake, increased faecal energy loss, positive influences on cardiometabolic outcomes, as well as improved upper airway neuromuscular control and upper airway muscle force-average capacity.[2,4]

For example, a simple tip from general practitioners (GPs) might be, 'Have four tablespoons of whole grain oats or two tablespoons of wheat bran with plenty of water every day.' This would mean an additional 5 g of dietary fibre per day. By consistently implementing this practical lifestyle advice, which means 365 days a year, significant effects on body weight and abdominal fat, as well as OSA severity, would be noted. However, it is essential that GPs inform their patients that the period of consciously executing lifestyle change takes an average of two months before it becomes an automated habit. It is therefore important for patients who are obese to internalise: 'I want and can implement a small change in everyday life for eight weeks. And I know why I do it.'

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Advertising affects the phenomenon of wheat avoidance

Clearly outlined prospects for research – I congratulate Golley, Corsini and Mohr for their article on wheat avoidance (*AFP* August 2017).[1] As a nutrition scientist, I would point out that wheat is the cereal most commonly consumed. The consumption of wheat is growing worldwide.[2] Wheat flour may also be used for preparing medicaments. For healthy consumers, avoiding wheat and consuming wheat-free or gluten-free products have no proven benefits.[3]

Golley, Corsini and Mohr show, and other investigations confirm, that the choice of a wheat-free diet is frequently made by individuals in the absence of a diagnosed sensitivity to wheat or gluten.[1,4] Thus, pure questionings without medical diagnostics lead to a clear overestimation of the problem. I fully agree with the authors that general practitioners, in collaboration with accredited practising dietitians, should critically question this patient clientele and build their recommendations for individual dietary modifications on more valid grounds.[1] That is, recommendations should be based on medical diagnostics, and trained dietitians must discuss food selection and meal composition, as well as nutritional patterns, with the patient. These factors should be matched to symptoms, physiological needs of the body as well as the individual's lifestyle. However, as long as no direct trigger is clearly identified, restriction in the sense of a wheat-free diet cannot be supported.

The phenomenon of wheat avoidance is, in addition to the influencing factors mentioned by the respondents, also significantly influenced by advertising by the food industry. The large number of wheat-free and gluten-free products, and the eye-catching advertising of some

manufacturers and distributors, can give consumers who are not intolerant the impression that this is a special quality feature. Advertising strategies often suggest that wheat-free or gluten-free products increase health and wellbeing, or even prevent obesity and help with weight loss. Added to this positive, health-promoting image of wheat-free and gluten-free products are numerous reports of celebrity endorsements in the press, and in some nutrition counselling books.

On average, wheat-free and gluten-free products cost more than double that of products containing wheat and/or gluten. For breads and bakery products, for example, gluten-free foods are 267% more expensive than similar gluten-containing products.[5] Consumers usually associate higher prices of these products with better nutritional quality, which also supports the phenomenon of wheat avoidance. However, extensive product analyses in Australia and Austria showed that gluten-free products have a significantly lower protein content, compared with gluten-containing products.[5,6]

Eliminating certain foodstuffs or food groups, with or without medical necessity, increases the risk of nutritional imbalances. The prevalence of self-prescribed restrictive diets is likely to increase even more in the future, which makes the diagnostic and therapeutic discussion in general practice necessary. The article by Golley, Corsini and Mohr confirms once again that additional strategies are urgently needed to improve the long-term interprofessional nutrition education of primary care practitioners and other front-line healthcare professionals.[7]

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Reply: The implicit message in 'gluten-free' and similar claims

We thank Dr Hofmeister for his observations. We agree that the widespread phenomenon of wheat avoidance is related in some measure to the burgeoning supply in many markets of food products promoted as being free of wheat or gluten. The conspicuous visibility of products labelled 'gluten-free', in particular, undoubtedly represents both a response to demand and a potential stimulant of demand for such products.

Dr Hofmeister mentions advertising extolling claimed sensory and other virtues of these foods as a factor influencing wheat avoidance. We propose that a more fundamental factor is the implicit caution against consumption of certain foods that is communicated by a term such as 'gluten-free' in the first instance. A similar case can be made for 'lactose-free' labelling as a factor in self-prescribed dairy avoidance, which is also prevalent in Australia.[1] 'Gluten-free' and 'lactose-free' are permitted claims under Australian and New Zealand food standards of value in the management of certain conditions, most notably coeliac disease and lactose intolerance. However, given the human propensity for categorical thinking about foods (among other things) as being fundamentally good or bad,[2] such claims may have the collateral effect of validating, if not motivating, the perception of gluten-containing or lactose-containing foods as intrinsically suspect. We believe this helps to explain the readiness of so many people to avoid consumption of wheat products, dairy products, or both without a supporting diagnosis.[1,3]

By the same reasoning, we agree with Dr Hofmeister that the market for products advertised as being free of wheat or gluten (or dairy or lactose for that matter) will include consumers who perceive these to represent a healthy option. Manufacturers may trade on this perception. The focus of our *AFP* paper on wheat avoidance was, of course, on people who systematically avoid foods for the control of symptoms, mostly of gastrointestinal discomfort.[4] This is where general practitioners have a particular role to play.

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Letters to the editor

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