

use verified in a subgroup of patients by means of prescription records.

Statin use for at least 5 years was more prevalent in the control group, and was associated with a significant decrease in colorectal cancer risk. This association remained significant following adjustment for a number of factors, including age, gender, nonuse of aspirin or other nonspecific anti-inflammatory drugs, and family history of colorectal cancer. Incidentally, statins also demonstrated a protective effect in 55 patients with inflammatory bowel disease.

The authors conclude that there is a strong inverse association between long-term use of statins and risk of colorectal cancer. After adjustment for known risk factors, the relative risk reduction is 47%, warranting further investigation and therapeutic clinical trials.

Original article Poynter JN *et al.* (2005) Statins and the risk of colorectal cancer. *N Engl J Med* 352: 2184–2192

Celiac disease: timing of gluten introduction in the infant diet

Celiac disease sufferers carry specific human leukocyte antigen (HLA) alleles that also confer a greater risk of Type 1 diabetes: high-risk groups can be identified by HLA genotyping. In addition, screening for the celiac disease autoantibody, tissue transglutaminase (tTG), allows for sensitive and specific identification of presymptomatic individuals. A prospective observational study used these markers to investigate the association between the timing of exposure to gluten and the development of celiac disease autoimmunity (CDA) in genetically susceptible infants.

A cohort of 1,560 infants with susceptible HLA genotypes was identified between 1993 and 2003. Diet data were collected by telephone, face-to-face interview or retrospectively by questionnaire. Blood testing for tTG autoantibody levels was carried out regularly during the mean follow-up of 4.8 years. The presence of tTG autoantibodies on two successive visits, or a positive small-bowel biopsy after one visit, were used to determine time to development of CDA. A secondary outcome was a positive biopsy for celiac disease.

CDA developed in 51 children; those introduced to wheat, rye or barley in the 3 months following birth had a fivefold increase in CDA risk, compared with those exposed at

4–6 months of age (the initiation period recommended by the American Academy of Pediatrics). A slightly significant increase in CDA risk was also found in those infants not exposed until their seventh month of life or later. These observations held true for the 25 children with a positive biopsy for celiac disease.

Norris and colleagues conclude that the "...timing of introduction of gluten into the infant diet is associated with the appearance of CDA in children at increased risk for the disease".

Original article Norris JM *et al.* (2005) Risk of celiac disease autoimmunity and timing of gluten introduction in the diet of infants at increased risk of disease. *JAMA* 293: 2343–2351

Analysis of a fish-protein supplement for intestinal health

Seacure[®] (Proper Nutrition, Inc., Pennsylvania, PA)—a dried fish-protein concentrate derived from Pacific whiting or hake—is marketed as a "...predigested source of bioactive peptides and biogenic amines, along with essential minerals and omega-3 fatty acids", which, say the manufacturers, help to support intestinal health and healing. In common with numerous other health-food supplements, however, the product lacks rigorous scientific evidence of its efficacy. Professor Ray Playford and co-workers from Imperial College, London, have recently studied the biological activity of Seacure[®] using experimental models of epithelial injury and repair.

When added to rat and human intestinal cell cultures at a concentration of 1 mg/ml, the supplement was associated with an approximately threefold increase in cell proliferation. Cell migration was similarly increased in wounded monolayers. Having established that the bioactivity of Seacure[®] was not affected by the acidic conditions found in the stomach, the researchers found that the supplement appeared to reduce the degree of injury by 59% in an indomethacin-induced rat model of gastric injury. Subsequent analysis showed that most of the biologic activity of Seacure[®] was soluble in ethanol, and that glutamine and fatty acids were key active constituents.

The authors conclude that Seacure[®] showed biological activity and warrants further study.

Original article Fitzgerald AJ *et al.* (2005) Reparative properties of a commercial fish protein hydrolysate preparation. *Gut* 54: 775–781