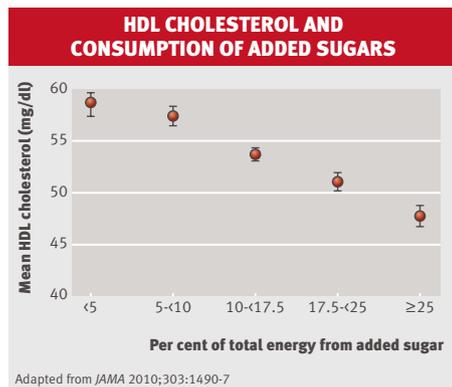


SHORT CUTS

ALL YOU NEED TO READ IN THE OTHER GENERAL JOURNALS

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Risky serum lipid profiles linked to sugar in processed foods



Adults in the US eat a lot of sugar, much of it added to their food by manufacturers. New figures from national surveys suggest that added sugars make up roughly a sixth (15.8%, 95% CI 15.3% to 16.4%) of an average adult's daily energy intake, possibly more given the well known tendency for people to under-report their intake of unhealthy food. These are essentially wasted calories, with no nutritional value other than energy. Weight gain is one obvious consequence. A cross sectional analysis of the survey data suggests that foods containing added sugars are also associated with adverse lipid profiles and increased risk of cardiovascular disease. The link was independent of body mass index and multiple other factors including age and sex, intake of fats, dieting, smoking, drinking habits, total energy intake, poverty, physical activity, and blood pressure.

The authors analysed data from 6113 adults who took part in National Health and Nutrition Examination Surveys (NHANES) between 1999 and 2006. Serum concentrations of high density lipoprotein (HDL) cholesterol went down, and concentrations of triglycerides went up with increasing consumption of added sugars. The link was strongest for HDL cholesterol. Adults in the top fifth of added sugar consumption were three times more likely to have a pathologically low concentration than adults in the bottom fifth (odds ratio 3.1, 2.3 to 4.3). Concentrations of low density lipoprotein cholesterol went up in line with sugar consumption in women, but not in men.

JAMA 2010;303:1490-7

Treatments for lactose intolerance: tried but not tested

Malabsorption of the lactose in milk and other dairy products can cause non-specific gastrointestinal symptoms such as bloating, flatulence, and diarrhoea. Plenty of treatments are available, but few have been properly evaluated in clinical trials, say researchers. A systematic review of 26 trials found little supporting evidence for probiotics, yoghurt containing live bacterial cultures, the antibiotic rifaximin, lactose reduced milk, or milk containing enzymes that hydrolyse lactose. Trials were small, poorly reported, inconclusive, and generally selected people with lactose malabsorption (diagnosed by hydrogen breath test), rather than lactose intolerance (malabsorption with symptoms). The researchers found no trials at all testing the long term effects of a lactose-free diet and just two testing colonic adaptation, a strategy of incremental increases in dose over a week or so. Both were negative and hard to interpret.

Twenty one studies tried to find out how much lactose people with established malabsorption could tolerate. Most were able to drink 12 g lactose—around one cup of milk—on an empty stomach without problems. The tolerable dose went up to 15 g—around half a pint of milk—when taken with food. Most studies reported a substantial increase in symptoms after doses of 50 g.

Ann Intern Med 2010; published April 19 www.annals.org/content/early/2010/04/15/0003-4819-152-12-201006150-00241.full?aimhp

Patients do better after less invasive treatment of infected necrotising pancreatitis

Necrosis with secondary infection is a leading cause of death in people with acute pancreatitis. Treatment is evolving from the traditional open necrosectomy to less invasive, graduated strategies that try percutaneous or transgastric drainage before moving on to endoscopic debridement for those who need it. Patients did better after the less invasive option in a Dutch trial. They were significantly less likely to have a major complication or to die than controls treated with open necrosectomy (40% (17/43) v 69% (31/45); risk ratio 0.57, 95% CI 0.38 to 0.87), a result that was driven by a reduction in

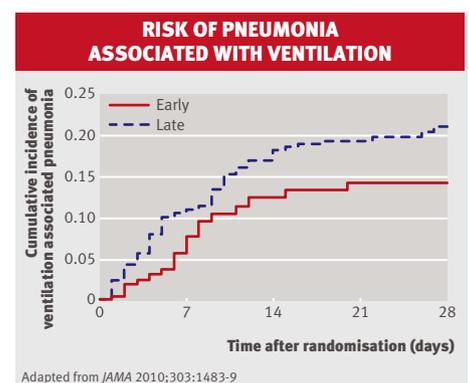
serious complications, most commonly organ failure. More than a third (15/43, 35%) needed drainage alone. Six months after treatment, survivors of open surgery had more diabetes and more incisional hernias than survivors of the step-up strategy. The authors chose the retroperitoneal route for their minimally invasive debridement and allowed two attempts at drainage first.

The participants were carefully selected by an expert panel, and all had necrotising pancreatitis with confirmed or probable infection. Mortality was high in both groups (19% (8/43) of those in the step-up group v 16% (7/45) of those treated with open necrosectomy), and survivors were in hospital for 55 days on average. Both figures are higher than corresponding figures from the US, says a linked editorial (p 1535).

N Engl J Med 2010;362:1491-502

Balance of evidence favours delaying tracheotomy

Tracheotomies are indicated for critically ill patients who are likely to need prolonged ventilation. Should intervention be sooner or later? In the largest trial so far, Italian patients given the earlier option (six to eight days after intubation) were weaned faster and had fewer days on the intensive care unit than those given the later option (13-15 days after intubation). But they did not leave hospital earlier, and they were no more likely to survive. Results for the primary outcome, risk of pneumonia related to ventilation, were hard to interpret. The option of an early tracheotomy was associated with a 34% reduction in risk (hazard ratio 0.66, 95% CI 0.42 to 1.04), but because the trial was





“I’ve only been to the USA twice, and on both occasions I was struck by the fact that almost all food tasted sweeter than it should be—also saltier, fattier, and overabundant.”

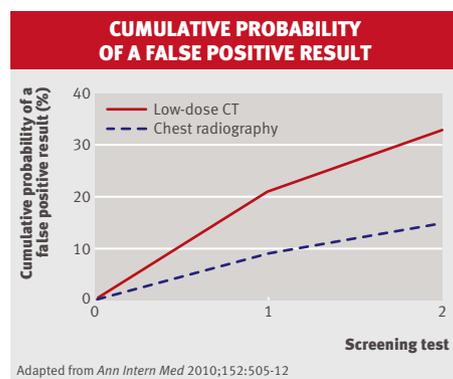
Richard Lehman’s journal blog, doc2doc.bmj.com

powered to detect a reduction of 35% or more, the benefit was not statistically significant. The authors reported a negative trial, and they concluded that doctors should wait a couple of weeks before considering a tracheotomy in people with unresolved or worsening respiratory failure.

A linked editorial (p 1537) agrees that this is probably right. Intervening early didn’t save lives, and any small benefit associated with early tracheotomy must be weighed against the risk of an unnecessary procedure and its associated complications. Many patients in the late group (91/210) managed to avoid a tracheotomy altogether because they got better, got much worse, or died. This proportion was smaller in the early group (64/209). Overall, 39% of patients who had a tracheotomy had at least one complication.

JAMA 2010;303:1483-9

False positives are common after CT screening for lung cancer



Screening for lung cancer in current or former smokers resulted in a large number of false positive findings in a new pilot trial for the US National Cancer Institute. Close to a third of high risk adults screened twice (one year apart) with low dose computed tomography (CT) had suspicious findings that turned out to be benign (506/1610). Most of them had further imaging (61%, 308/506), and 7% (33/506) had invasive procedures, including 2% (8/506) who had unnecessary major surgery. Screening with chest radiography was associated with fewer false positives over two rounds (14%, 216/1580), and a lower but still substantial risk of unnecessary imaging (51%, 110/216) and invasive procedures (4%, 9/216).

Direct to consumer advertising fuels demand for lung cancer screening in the US, say the authors. It is still poorly evaluated and there is a potential for substantial harm, particularly after screening with low dose computed tomography. Repeat imaging exposes people to cumulative doses of radiation that carry a discernible risk of cancer. Bronchoscopies, mediastinoscopies, biopsies of lung or lymph nodes, and thoracotomy all have their own associated complications. These authors didn’t study the psychological consequences of a false positive screen, but previous research suggests that they could be serious—up to two years of uncertainty, worry, and stress.

Ann Intern Med 2010;152:505-12

Neoadjuvant treatment looks promising for some patients with pancreatic cancer

No randomised trials have evaluated neoadjuvant (preoperative) treatment for people with pancreatic cancer, despite two decades of discussion. So researchers recently reviewed all the other available evidence. They found 111 mostly small heterogeneous studies that included 4394 patients in total. The researchers were particularly interested in what happens to people with locally advanced tumours that don’t look resectable. Could neoadjuvant treatment with chemotherapy, radiotherapy, or both shrink these tumours enough to give patients the chance of surgery?

In this review, a third of the patients with tumours thought to be borderline or unresectable were able to have surgery after neoadjuvant treatment (33.2%, 95% CI 25.8% to 41.1%). Median survival after surgery was 20.5 months. Expected survival without surgery was closer to 10 months for this group. Neoadjuvant treatment didn’t seem to improve rates of surgery or survival for people with tumours classified as resectable. About three quarters of these people (73.6%, 65.9% to 80.6%) had surgery after their neoadjuvant treatment. Postoperative survival was 23.3 months, no longer than average survival times after standard adjuvant (postoperative) treatment.

Randomised trials must now be done, say the authors. The evidence as it stands isn’t good enough to inform practice. Standardised protocols defining resectable and unresect-

able tumours would be a start. More than half the studies in this review failed to report how they had classified patients, and the rest used a variety of anatomical variables, depending on the expertise of local radiologists and surgeons. Treatments were also heterogeneous, although most chemotherapy protocols included either gemcitabine or fluorouracil.

PLoS Med 2010;7(4):e1000267; doi:10.1371/journal.pmed.1000267

Cochlear implants are associated with language improvements in young deaf children

Cochlear implants may help language development in profoundly deaf young children. In one cohort, early treatment was associated with faster language development than treatment delayed beyond the age of 18 months. The authors had no untreated controls, but they did compare the cohort’s language development with children with normal hearing of the same age. Deaf children with cochlear implants did not catch up with their hearing peers during three years of follow-up. But they did progress faster than predicted by their baseline scores in a battery of tests measuring performance, recognition, and understanding of spoken language.

Several analyses suggested a link between early intervention and better language outcomes, in line with prevalent theories about a critical early learning period for language. All these children had cochlear implants by 5 years of age: 38% (72/188) were treated before the age of 18 months, 34% (64/188) between 18 months and 3 years, and 28% (52/188) between 3 and 5 years. In fully adjusted analyses, better residual hearing, shorter periods of hearing loss, and a better socioeconomic background were associated with better development of language.

These observations may not be completely watertight, because statistical adjustments can never fully account for baseline differences between children treated early and children treated later. But randomised trials would be ethically questionable at this stage, say the authors. Objective, prospective follow-up of cohorts is the next best option.

JAMA 2010 303:1498-506

Cite this as: *BMJ* 2010;340:c2235