SHORT CUTS

ALL YOU NEED TO READ IN THE OTHER GENERAL JOURNALS

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Capsule endoscopy of the large bowel seems less reliable than colonoscopy

Ingestible cameras developed to visualise the inside of the small bowel have recently been adapted to examine the colon. When manufacturers Given Imaging tested their capsule endoscope PillCam COLON against traditional colonoscopy, they found that the capsule endoscope picked up 64% (95% CI 59% to 72%) of the larger polyps, 73% (61% to 83%) of the advanced adenomas, and 74% (52% to 88%) of the 19 cancers detected by colonoscopy. Specificities were 84% (81% to 87%) for polyps measuring at least 6 mm and 79% (77% to 81%) for advanced adenomas.

The study included 320 European adults with known or suspected colonic disease, who underwent capsule endoscopy followed by colonoscopy. All but one of the recruits managed to swallow the camera capsule, which measures 31 mm by 11 mm. To save battery life, the device is meant to "sleep" during transit through the stomach and small bowel then "wake up" and begin recording images somewhere in the terminal ileum. For the most part, PillCam COLON functioned appropriately—providing adequate imaging for 93% of patients—and was egested naturally. Most patients passed the device within 10 hours (297/320); although one held on to it for nearly four weeks. There were no adverse events except those caused by the bowel preparation.

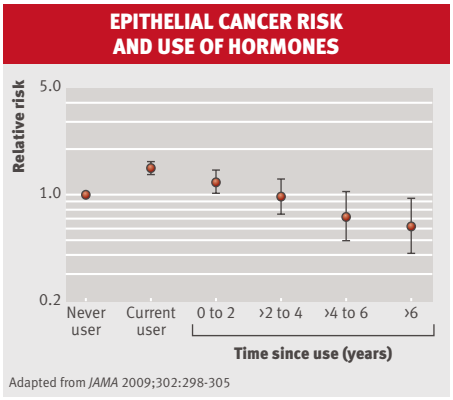
Overall, PillCam COLON was less reliable than colonoscopy in this high risk group, say the authors. Perhaps unsurprisingly, it worked best for patients with the cleanest bowels.

N Engl J Med 2009;361:264-70

Study confirms link between hormone therapy and ovarian cancer

Women who take hormone replacement therapy have an increased risk of ovarian cancer—about one extra cancer for every 8300 women using hormones for one year, according to a large observational study from Denmark.

The study cohort included nearly one million women who were at least 50 years old when the study started in 1995. After eight years of follow-up, 3068 women had developed an ovarian cancer, mostly epithelial. Current use of any formulation of hormone therapy by any route was associated with a relative risk of 1.38 (95% confidence interval 1.26 to 1.51) for ovarian cancer compared with women who had never used hormones. The authors looked separately at oestrogen only therapy, and combined therapy with oestrogen and progestin. They also considered oral, transdermal, vaginal, continuous, and cyclical regimens. All were associated with an increased risk of ovarian cancer, with little to choose between them. The excess risk lasted for about two years after the end of treatment.



If the association is causal, hormone therapy was responsible for 140 cases of ovarian cancer in the whole of Denmark during these eight years, say the authors. The excess risk is small in real terms but should still be factored in to decisions about hormone therapy.

JAMA 2009;302:298-305

Men who walk or cycle to work are leaner and fitter than other commuters

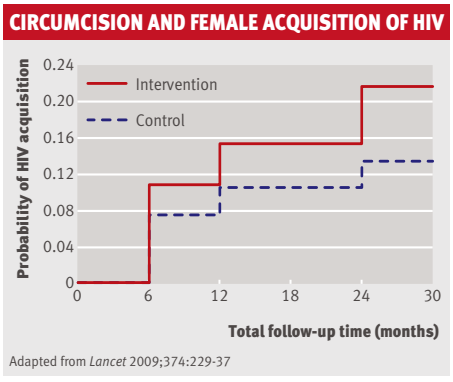
Walking or biking to work is one way to get more exercise and there's some evidence that people who commute this way are fitter and have better cardiovascular risk profiles than people who take the car. The latest study to look for a link between active commuting and cardiovascular risk used data from a cohort of US adults recruited more 20 years ago when they were aged from 18 to 30 years. By 2005-6, the authors were able to question, examine, and test 2364 men and women. After a series of cross sectional analyses, they found that men who reported walking or biking at least part of the way to work were fitter and leaner than men who took the car. They also had lower diastolic blood pressures (–1.67 mm Hg, 95% CI 3.2 mm Hg to –0.15 mm Hg), lower concentrations of triglycerides, and lower fasting concentrations of insulin.

The associations were less clear cut for women, however. Active commuting was associated with fitness, but not body mass index, prevalence of obesity, or biomarkers of cardiovascular risk.

These results were comprehensively adjusted for potential confounders including social and demographic factors, and physical activity during leisure time. Cross sectional analysis can never establish cause and effect, however. Active commuting was generally unpopular in this study—less than one in six participants walked or biked to work (16.7%).

Arch Intern Med 2009;169:1216-23

Circumcising men infected with HIV does not protect their female partners



Circumcision does not prevent men infected with HIV from infecting their female partners, a trial has found. The rate of seroconversion among female partners of circumcised men was 18% (17/92), compared with 12% (8/67) among control women whose partners were not circumcised (adjusted hazard ratio after two years 1.49, 95% CI 0.62 to 3.57). A data monitoring board stopped the trial early when it became clear that circumcising infected men did not protect their female partners. Risk of infection was highest among the partners of men who resumed sex too early after their surgery (27.8% (5/18) at six months). The authors and a linked

comment (pp 182-4) say men should wait at least six weeks before resuming sex to guarantee wound healing after a circumcision.

The trial, which took place in Uganda, included 155 HIV infected men and their 163 uninfected female partners. The men were randomised to immediate circumcision or circumcision two years later. All the men and their partners had repeated counselling about HIV, safe sex, and condom use. Circumcised men were no less likely to use condoms than controls, but well under half the men in both groups used condoms consistently. Treatment allocation made no discernible difference to other sexual behaviours including number of sexual partners and use of alcohol with sex (which was common).

The negative results are a disappointment, say the authors. Observational studies suggest that circumcision should reduce HIV transmission from men to women. This setback does not reduce the importance of male circumcision programmes, however, which are currently being scaled up in some African countries. We know that circumcising uninfected men helps protect them from HIV. Women in these countries should eventually benefit from the expected fall in prevalence of HIV among men.

Lancet 2009;374:229-37

Condoms give limited protection against HSV-2

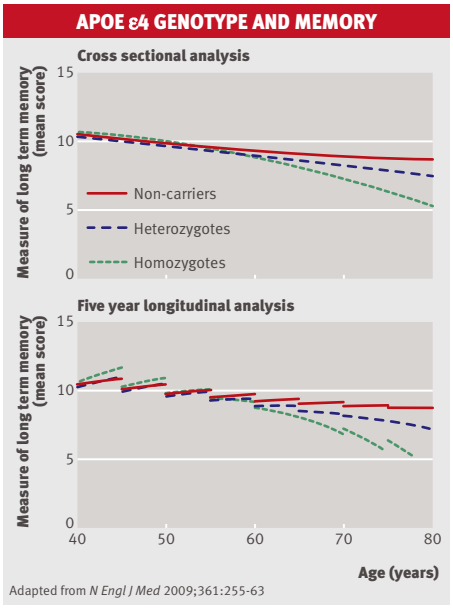
When used properly, condoms offer reasonably good protection against some sexually transmitted infections, including chlamydia, gonorrhoea, and HIV. Condoms might not work quite so well against herpes simplex virus type 2 (HSV-2), a common micro-organism that causes genital herpes. In one pooled analysis, consistent use of condoms for every sexual act reduced the risk of acquiring HSV-2 by just 30% (hazard ratio 0.70, 95% CI 0.40 to 0.94) compared with no condom use.

The analysis included 5384 young adults from six prospective studies. All were seronegative for HSV-2 at baseline and 415 acquired the infection during follow-up. Each extra unprotected sexual act a week was associated with a 16% increase in the risk of infection (1.16, 1.08 to 1.25). Condoms gave equally modest protection to both men and women, although women in these studies were consistently more likely to acquire HSV-2 infection than were men.

Randomised trials of condoms are impossible, so these observational data are the best we can do. They suggest that condoms aren't as effective against HSV-2 as they are against HIV, say the authors. One explanation is that HSV-2, unlike HIV, can be transmitted during skin to skin or skin to mucosa contact. Individuals with HSV-2 shed the virus from perineal areas not covered by a condom.

Arch Intern Med 2009;169:1233-40

Genetic testing for Alzheimer's disease remains controversial



Adapted from *N Engl J Med* 2009;361:255-63

Genetic testing for Alzheimer's disease is controversial. A negative test doesn't rule out later dementia, and a positive test means an unpredictable predisposition to a frightening disease that cannot be prevented or cured. The benefits are clearly limited, making the potential harms all the more important. Researchers have now done a randomised trial to assess the psychological impact of telling US adults their test results. All 162 participants had a parent with Alzheimer's disease and were tested for the risk allele apolipoprotein E (APOE) ε4. Researchers disclosed the genotyping results to 111 participants, and withheld the results from the 51 controls.

Those who got their results were no more distressed, anxious, or depressed over the next year than those who did not, although disclosure of a negative result was associated with slightly but significantly less distress than disclosure of a positive result. It's unclear whether the difference was clinically meaningful.

These results are reassuring, to a point, says a linked editorial (pp 298-9). All the participants had genetic counselling and knew that Alzheimer's disease was already in the family. They volunteered for the trial and were not overly anxious or depressed at the start. They agreed to randomisation so presumably had no burning desire to know their results. The effect of these tests, offered without counselling to anxious people with a very poor understanding of risk, remains unknown.

The debate is complicated further by the subclinical effects of APOE genotype. One recent cohort study suggested that adults homozygous for the APOE ε4 allele develop detectable memory loss more than a decade earlier than non-carriers (pp 255-63).

N Engl J Med 2009;361:245-54

Programmes to increase physical activity look like good value for money

Mass media campaigns and interventions to encourage people to wear motivational pedometers are the most cost effective ways to promote physical activity, according to research from Australia. Both these approaches were effective (that is, they increased physical activity, which subsequently helped prevent heart disease, stroke, obesity related cancers, and diabetes) and saved money in an economic analysis. Three other strategies also seemed cost effective: a primary care prescription for exercise, an internet intervention to encourage activity, and a community wide programme to get people out of their cars. These interventions cost between AUS$3000 (£1500; €1700; US$2400) and AUS$20 000 for each disability adjusted life year saved. Disability adjusted life years measure healthy years lost through death or disability. Screening primary care patients then sending the most inactive to an exercise physiologist was the least cost effective option at AUS$79 000 per disability adjusted life year saved.

All economic analyses make multiple assumptions in order to model both costs and benefits, so these values are best guesses, derived from imperfect published information and determined using standardised modelling techniques. The figures may not be totally reliable, say the researchers, but they should give policy makers some idea of where to start. If the Australian government invested in all six interventions, starting with pedometers, the population would gain 61 000 disability adjusted life years—about one third of the benefits that could be achieved if all Australians did the recommended amount of exercise. Currently, between one third and one half of Australian adults get enough exercise. Inactivity contributes to 10% of all deaths in Australia.

PLoS Med 6:e1000110;doi:10.1371/journal.pmed.1000110

Cite this as: *BMJ* 2009;339:b2918