



In the news . . .

Social isolation and the common cold

Ties to friends, family, work and the community can help people fight infection, a recent study has determined (*JAMA* 1997;277:1940-4). Researchers gave 276 healthy volunteers nasal drops containing strains of the common cold and asked questions about a variety of lifestyle factors. The subjects with more types of social ties were less susceptible to colds, produced less mucus, had better clearance of nasal passages and shed less virus. This association held when age, sex, season, body mass index, education, race and viral factors were taken into account. Other factors with a lesser association with susceptibility to colds were smoking, poor sleep quality, abstinence from alcohol, low intake of vitamin C, high catecholamine levels and being introverted.

Hormone replacement therapy, heart disease and breast cancer

The largest study so far of the effects of hormone replacement therapy confirms existing evidence concerning heart disease and breast cancer and supports an individualized approach to deciding whether to take hormones after menopause (*N Engl J Med* 1997;336:1769-75). The data come from the Nurses' Health Study, longitudinal research involving a huge sample of US women. Researchers looked at 3637 women who had died and 10 living controls matched with each death. Women taking hormones had a lower risk of death from any cause, but this apparent benefit decreased with long-term use because of a 43% increase in death due to breast cancer after hormones were used for 10 years or

more. The greatest benefit was among women with risk factors for coronary artery disease; conversely, women with few risk factors experienced less benefit.

Spinal cord injury: time is of the essence

A multicentre trial of drug treatment for acute spinal cord injuries shows that patients' motor function and functional independence are improved if treatment starts as soon as possible — within 3 hours of the injury (*JAMA* 1997;277:1597-604). If

prompt treatment is not possible, longer therapy (48 hours v. 24) improves outcomes. Two Toronto centres, the Toronto Hospital-Western Division and Sunnybrook Health Science Centre, took part in the study. Patients were randomly assigned to receive methylprednisolone for 24 or 48 hours, or tirilazad mesylate for 48 hours. Patients who started on any therapy within 3 hours fared better than those started later; those started on therapy 3 to 8 hours after the injury had the best results following 48 hours' treatment with methylprednisolone.

The search for clues to early-stage ovarian cancer

Research into the biochemical changes caused by ovarian cancer has led to the discovery of a potential marker for this often-fatal disease (*Int J Cancer* 1997;71:31-4). The marker, alone or in combination with other markers, may lead to more reliable screening tests, says Dr. Douglas Gaudette, a senior research associate with the University of Guelph in Guelph, Ont., and a study coauthor.

Ovarian cancer is the fourth leading cause of death due to cancer in women. Because it is usually asymptomatic in the early stages, about 70% of newly diagnosed cases involve advanced disease. The best serum marker now available, CA125, misses up to 50% of early-stage cases. Gaudette and his associates examined 17 patients with ovarian cancer and found that they had high plasma levels of lysophosphatidylcholine (lysoPC), relative to phosphatidylcholine (PC), a related phospholipid. Furthermore, patients with another type of cancer (leukemia), had low levels of lysoPC, indicating that elevated lysoPC is not common to all forms of cancer. Gaudette says

the trail leading to lysoPC was circuitous. "LysoPC wasn't what we started out looking at."

The researchers were interested in growth-factor activity seen in association with ovarian cancer. At first they believed the growth factor involved was a protein, but then discovered that it was a lipid, lysophosphatidic acid (lysoPA). In patients with ovarian cancer, lysoPA was found in very small quantities in plasma. Then the researchers noticed that lysoPC levels also seemed to be elevated in these patients.

Whether lysoPC can be used clinically as a marker for early ovarian cancer "really depends on how it turns out once sufficient numbers of samples are analysed," says Gaudette. "As well, patients with a family history of ovarian cancer have to be followed over time."

A biotechnology firm has applied for a patent for lysophospholipid diagnostics. However, Gaudette cautions that "this may not be the ultimate test. There might not be an ultimate test. However, it could be used with other markers as part of a multitest screening protocol." — *C.J. Brown*