

PUBLIC HEALTH ABSTRACTS

Professor James S. Lawson, Professor and Head of the School of Health Services Management at the University of NSW, has prepared the following public health items from the literature.

COFFEE AND MILD HYPERTENSION

Coffee drinking has been associated with higher blood pressure, and a reduction of chronic caffeine intake has been linked with a fall in blood pressure. The studies on which these statements are made were done in patients with significantly raised blood pressure. Now a Scottish study has shown that for people with mild hypertension, reduction of caffeine intake had no effect on the level of blood pressure.

MacDonald TM, Sharpe K, Fowler G, Lyons D et al. Caffeine restriction: effect on mild hypertension. *Br Med J* 1991; 303:1235-1258.

MANSLAUGHTER CONVICTIONS FOR MISTAKES

Two young doctors in England have been found guilty of manslaughter over the death of a 16-year-old leukaemia patient who had been prescribed two chemotherapeutic drugs — one to be received into the spinal canal and the other intravenously. One doctor, aged 27, supervised another doctor, aged 25, to administer vincristine to the spinal canal instead of intravenously. It appears the more junior doctor got the drugs mixed up. The conviction went against the doctors because the jury believed they had acted recklessly, not just negligently. The judge said: "It seems to me you could have been helped much more than you were helped." The *British Medical Journal* editorial said: "Bringing the full weight of the criminal law to bear on two fledgling doctors will do little to remedy a system which lets juniors loose on patients with too little training, too little support and too little sleep."

Dyer C. Manslaughter Convictions for Making Mistakes. *Br Med J* 1991; 16:303:1218.

POPULATION GROWTH A PUBLIC HEALTH ISSUE

The United Nations estimates the world's population will reach 10 billion by the year 2050. (It was 5 billion in July 1987.) Such a growth cannot be sustained without widespread catastrophe. The problem is now concentrated in Africa, the Indian sub-continent and Indonesia. China has been most successful of all Third World countries in controlling its growth, but by the year 2025 it will have increased in population size by the equivalent of three Japans.

Walker A. Population: more than a numbers game. *Br Med J* 1991; 303:1194-1197.

ELECTROMAGNETIC FIELDS AND BREAST CANCER

Several studies have found some association between a variety of cancers and electromagnetic fields. A careful United States study has again found there appears to be an association between exposure below the age of 30 and an increased level of breast cancer in men.

Demers PA, Thomas DB, Rosenblatt KA et al. Occupational Exposure to Electromagnetic Fields and Breast Cancer in Men. *Am J Epidemiol* 1991; 134:340-347.

PHYSICAL ACTIVITY IMPROVES MENTAL HEALTH

It has become generally accepted that regular physical exercise confers mental health benefits on participants. The biological mechanisms involved in this phenomenon may include an increased flow of blood to the cortex of the brain, and release of endorphins and other chemicals. It has also been suggested that strenuous exercise allows for a discharge of hostility, reducing emotional strain and perhaps also serving as a buffer against stressful events. A US-based study has again confirmed these phenomena and provides further evidence of a greater level of depression among people with low levels of physical activity.

Camacho TC, Roberts RE, Lazarus NB et al. Physical Activity and Depression: evidence from the Alameda County study. *Am J Epidemiol* 1991; 134:220-231.

DIET AND CANCER OF THE PANCREAS

The pancreas is about the fifth most common site of cancer in Australia for both men and women and accounts for almost 5 per cent of all cancer deaths. In Australia only 15 per cent of people with cancer of the pancreas survive for more than a year from the date of diagnosis.

Little is known about the cause of the disease but a study based in South Australia found a statistically strong link between cancer of the pancreas and high consumption of sweet and fatty foods and a relatively low intake of vegetables and fruit. In addition, smokers are at more risk. No association with coffee drinking was found. This finding is in sympathy with several other studies.

Baghurst PA, McMichael AJ, Slavotinek AH et al. A Case-Control Study of Diet and Cancer of the Pancreas. *Am J Epidemiol* 1991; 134:167-179.

SUCCESS IN IDENTIFYING OSTEOPOROSIS DANGERS

The number of fractures associated with osteoporosis is rising, mainly because of the increasing age of the population. Treating osteoporosis is difficult and often disappointing and it is therefore essential to be able to prevent the disease from developing or to treat the early stage before fractures occur.

Prevention could be accomplished by treating all women with estrogen-like drugs. But these drugs may have long-term adverse effects and are often expensive. An alternative strategy is to treat only the women at risk of developing osteoporosis. A Danish group has demonstrated from a long-term study that a single measurement of bone mass combined with a single estimation of the rate of bone loss can reliably identify women at menopause who are at highest risk of developing the disease later in life.

Hansen MA, Overgaard K, Riis BJ and Christiansen C. Role of peak bone mass and bone loss in post-menopausal osteoporosis: 12-year study. *Br Med J* 1991; 303:961-964.

METHADONE REDUCES USE OF HEROIN

A good American trial has shown that the provision of methadone, that did not include formal drug abuse counselling or other supportive services, reduced the use of heroin from 63 per cent to 29 per cent one month after commencement. This is compared with no change in heroin consumption in a control group.

Yancovitz SR, Des Jarlais DC, Peyser NP et al. A Randomised Trial of an Interim Methadone Maintenance Clinic. *Am J Public Health* 1991; 81:1185-1191.