

## BCG VACCINATION NOT COST-EFFECTIVE

For 40 years one of the main planks of the public health strategy against tuberculosis in many countries has been BCG vaccination for tuberculin negative schoolchildren. The risk of infection from tuberculosis now depends more on higher living standards and effective treatment rather than on vaccination. Evidence from a number of countries where routine BCG vaccination has been stopped strongly support the view that routine vaccination is no longer cost-effective and can be stopped. (Routine BCG is not carried out in most parts of Australia at the present time. This evidence confirms the correctness of that decision — reviewer.)

Conway SP, BCG vaccination in children, *British Med J* 1990, 301, 1059-1060.

## SOCIO-ECONOMIC CONDITIONS IN CHILDHOOD

Low socio-economic status is associated with increased risk for many health outcomes, including ischaemic heart disease. The reasons for these associations are not fully understood. A Finnish-based study has demonstrated that low socio-economic status in childhood is associated with a higher prevalence of ischaemic heart disease in middle age. Levels of risk factors measured at middle age did not account for this association. Although there is no hard evidence, it does appear that lifestyle factors in childhood predispose people to adult ischaemic heart disease.

Caplan GA and Salonen JT, Socio-economic conditions in childhood and ischaemic heart disease during middle age, *British Med J* 1990, 301, 1121-1123.

## CAFFEINE INCREASES RISK OF HIP FRACTURE

Caffeine increases urinary calcium output and has been implicated as a risk factor for osteoporosis. As part of the famous Framingham study, a large number of individuals were followed up with respect to caffeine intake (either as coffee or tea) and risk of fracture. Overall the intake of greater than two cups of coffee a day or four cups of tea increased the risk of hip fracture. There was no increase in risk with the intake equivalent of one cup of coffee a day.

Since caffeine use may be associated with other behaviours that are risk factors for fracture, the association may be an indirect one. Accordingly, no policy guidelines should be developed from this preliminary study.

Kiel DP, Felson DT, Hannan MT, et al, Caffeine and the risk of hip fracture: The Framingham Study, *American Journal of Epidemiology* 1990, 132, 4, 675-684.

## PHYSICAL ACTIVITY HELPS

Evidence for an independent role of increased physical activity in the primary prevention of coronary heart disease has grown in recent years. A review of all the published studies conducted over many years has shown that the relative risk of death from coronary heart

disease was 1.9 for sedentary compared with active occupations. The methodologically stronger studies tended to show a larger benefit of physical activity than less well designed studies.

Berlin JA and Colditz GA, A Meta-analysis of physical activity in the prevention of coronary heart disease, *American Journal of Epidemiology* 1990, 132, 4, 612-628.

## X-RAY MAMMOGRAPHY-POSITIVE RESULTS

First results are available from a pilot x-ray mammography screening project has been conducted in the Central Sydney Area since 1987. The overall detection rate was seven cancers per 1000 women screened. Sixty per cent of the cancers were impalpable to the examining surgeon. These results compare well with those of the major European screening studies which have concluded that such screening programs can reduce mortality from breast cancer by about 30 per cent.

Rickard MT, Lee W, Read JW, et al, Breast cancer diagnosis by screening mammography: early results of the Central Sydney Area Health Service Breast X-ray programme, *Med J Aust* 1991, 154, 126-131.

## TUBERCULOSIS STILL A PROBLEM IN AUSTRALIA

In 1986 290 new cases of tuberculosis were notified in NSW. The majority of these patients had pulmonary disease. The highest rates of infection were in people migrating from South-East Asian countries. While the current rate of 5.2 cases per 100,000 of the population is substantially less than the 57 per 100,000 in 1948, tuberculosis remains an important and serious condition in our community.

Plant AJ, Rushworth RL, Wang Q and Thomas M, Tuberculosis in NSW, *Med J Aust* 1991, 154, 86-89.

## CHILD SEXUAL ABUSE

There is a huge gap in what people of good intent are talking about when they try to plan a system to protect sexually abused children. At one extreme is the child victim of a stranger. At the other is incest. The two are completely different. In the case of the stranger there is no dispute, the offender is at fault and must be caught.

With incest, the most appropriate program appears to be those along the lines adopted in Santa Clara in California. The aim is to stop the offence from continuing in the immediate future and to stop the addiction of the offender. This is done by rapid pre-trial diversion of the offender into a program. The diversion permits the offender to confess without going to prison, allows speed so the abuse is stopped immediately because the offender leaves the home. The child does not leave.

This Santa Clara program for father/daughter incest has produced a 90 per cent confession rate, has had 20 years of trial, has spread from Santa Clara to more than 150 centres and is now the recommended approach for Australia.

Guray DL, Child sexual abuse, *Med J Aust* 1991, 154, 9-11.

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## Public Health Abstracts

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### HOW MEN CAN LIVE LONGER

Sports demanding prolonged vigorous physical exercise are increasingly popular. Cities all over the world take pride in organising marathons every year and millions of people exert themselves to participate in these events. A major study in Holland has compared the long-term survival of a group of athletes who were capable of participating in major ice-skating tours. They have shown that men who remain capable over many years of participating in such races have a substantially lower risk of early death. It is of interest that if the exercise is recreational it is a particular indicator of longevity.

Van Saase JLCM, Noteboom WMP and Vandenbroucke JP, Longevity of men capable of prolonged vigorous physical exercise: a 32-year follow-up of 2259 participants in the Dutch eleven cities ice-skating tour, *British Med J* 1990, 301, 22-29.

### ANIMAL FAT DIET AND COLON CANCER

Nutritional factors have been strongly suspected of being important as causes of colon cancer. In western countries the rates of the disease are up to 10 times those of many eastern and developing nations. A large prospective study conducted among more than 88,000 middle-aged US women has shown that an intake of animal fat is positively associated with the risk of colon cancer. A low intake of fibre from fruits appears to contribute to the risk of colon cancer.

This study provides evidence for the hypothesis that a high intake of animal fat increases the risk of colon cancer and supports existing recommendations to substitute fish and chicken for meats high in fat.

Willett WC, Stampfer MJ, Colditz GA, et al, Relation of meat, fat and fibre intake to the risk of colon cancer in a prospective study among women, *New England J Med* 1990, 323, 1664-1672.

### TANNING WITH ULTRAVIOLET SUNBEDS SHOULD BE DISCOURAGED

A review of the studies conducted on this issue has strongly suggested that such exposure may be harmful. The problems include increased skin fragility and blistering and a slight increase in the risk of inducing melanoma. Accordingly, their use should be discouraged and there are several groups which should not use them at all: children, people who burn easily and do not tan, and those with a history of skin cancer.

Diffey BL, Tanning with ultraviolet A sunbeds, *British Med J* 1990, 301, 773.

### GENERAL PRACTITIONERS AND FIRST NAMES

For many years the way the doctors have addressed their patients has been a topic of discussion. A formal British study has shown that most patients liked or did not mind being called by their first names. A minority disliked it. Most of this group were aged over 65 years. Most patients did not want to call the doctor by his or her first name.

McKinstry B, Should general practitioners call patients by their first names?, *British Med J* 1990, 301, 795-796.

### WEIGHT CONTROL SUCCESS

A new paper in the Community Health Studies describes the successful experience on the North Coast of NSW in the recruitment, training and supervision of community educators for weight control programs. The programs appear to be effective and they also provide sound satisfaction for the group leaders. (Similar widespread experiences exist in Sydney with the weight control programs conducted in a similar fashion. These were established by Norma Dembecki in the early 1970s and preceded the now familiar commercial programs — editor.)

James R, van Beurden E, Steiner C, Tyler C and Fardon K, The Role of Community Educators in Achieving Australian Health Goals: a Public Health Approach to Weight Control on the North Coast, NSW, Community Health Studies 1990, XIV, 2, 146-152.

### SEVERE MEASLES AND VITAMIN A

Measles remains a devastating disease for which specific therapy is lacking. Hopes for its control rest on immunisation, but measles kills about two million children each year and cripples an untold number through blindness and lung disease. The disease is most devastating in developing countries where children have poor nutritional levels.

The idea that vitamin A may have a protective effect in measles was suggested more than 50 years ago but recent trials have confirmed its value. That vitamin A should be of benefit in measles is biologically plausible because measles depresses serum levels of vitamin A and vitamin A is known as an anti-infective vitamin, a conclusion based on many studies.

A new randomised double blind trial in South Africa has shown that treatment with vitamin A reduces morbidity and mortality in measles and a recommendation has been made that all children with severe measles should be given vitamin A supplements whether or not they are thought to have a nutritional deficiency.

Hussey GD and Klein M, A Randomised Controlled Trial of Vitamin A in Children with Severe Measles, *N Eng J Med* 1990, 323, 3, 160-164.

### STRESS IN WOMEN JUNIOR HOUSE OFFICERS

A British study has shown that while both male and female junior house officers may be stressed, there are particular problems for the women. Overwork was perceived as creating the most difficulty followed by effects on personal life, serious failures of treatment and talking to distressed relatives. Six sex-related sources of stress were conflicts between career and personal life (this was the major problem), and to a much lesser degree sexual harassment at work, lack of female role models and prejudice from some patients.

The author has recommended that as 50 per cent of medical graduates are female, substantial changes need to be made in the career paths of women doctors.

Firth-Cozens J, Sources of Stress in Women Junior House Officers, *Brit Med J* 1990, 301, 89-91.

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## Public Health Abstracts

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### FAMILY HISTORY REQUIRES EARLY SURVEILLANCE

Several new studies from the United States have shown that some forms of breast cancer are familial. Where the onset of breast cancer occurs at a young age the risk in relatives is substantially increased. Accordingly, for such individuals an intensive surveillance program is required which includes an annual breast examination by a physician and at age 25 they should begin annual mammographic screening.

Lynch HT and Watson P, Early Age at Breast Cancer Onset — a Genetic and Oncologic Perspective, *Am J Epidemiology* 1990, 131, 6, 984-986.

### SEVERE HEAT STROKE IN AN EXPERIENCED ATHLETE

In spite of many warnings severe environmental heat injury continues to occur. In early 1988 a 28-year-old athlete ran in an Australian 'fun run' when the temperature was 31 degrees and humidity 40 per cent. (These are both relatively high.) He led the race until 0.5km from the finish when he collapsed. He suffered extreme heat stroke with severe damage to many body systems including the nervous system. Muscle breakdown meant he required a hind-quarter amputation of one leg. After five months in intensive care he slowly recovered and was able to return to work.

This distressing example again indicates the need for athletes to be thoroughly acclimatised, to run in the cool time of the day or year and for officials to force athletes suspected of having heat stroke to stop for immediate treatment.

Lee RP, Bishop GF and Ashton CM, Severe Heat Stroke in an Experienced Athlete, *Med J Aust* 1990, 153, 100-104.

### COLORECTAL CANCER — WE ARE NOT READY FOR MASS SCREENING

The epidemiology of colorectal cancer appears to favour screening. But a review of the costs, practicality and dangers of screening programs has demonstrated that despite increasing interest, such a program is not appropriate at present. Australia should await the results of major overseas trials which will become available in three to five years before proceeding with mass screening.

Woodward A and Weller D, Colorectal Cancer: Implications of Mass Screening for Public Health, *Med J Aust* 1990, 153, 81-88.

### FEWER SPERM IN SUMMER

Demographers have repeatedly noted reductions in the birth rate during spring in non-equatorial regions with warm climates. An American-based study has shown that semen quality deteriorates during the summer. This phenomenon may account, at least in part, for the reduction in the birth rate during spring in regions with warm climates. The reason for this is not the heat of the summer. Other factors may include increased exposure to light during the summer. This is similar to several

other animal species. These studies are relevant to the need to increase fertility in men with fertility problems.

Levine RJ, Mathew RM, Chenault CB, et al, Differences in the Quality of Semen in Outdoor Workers During Summer and Winter, *N Eng J Med* 1990, 323, 12-16.

### FLUORIDATION — DOWN BUT NOT OUT

In recent years studies have challenged a long-standing belief that fluoridation is responsible for large reductions in dental decay in the past three decades. The latest review is by John Colquhoun from New Zealand. He challenges the methodology of Dean's work in the United States, which formed the basis for the widespread introduction of fluoride to water supplies in many countries. He also refers to the range of papers by Diesendorf, a Canberra-based researcher who has long challenged the value of fluoridation.

Colquhoun J, Flawed Foundation: A Re-examination of the Scientific Basis for a Dental Benefit from Fluoridation, *Community Health Studies* 1990, XIV, 3, 288-296.

### PESTICIDES IN BREAST MILK

Pesticides have been widely used in agriculture to enhance food production, and pesticide residues are found in most human breast milk samples taken in industrial countries. A new survey from Victoria has confirmed this, but has also shown there has been a decline in the content of pesticides in human breast milk in the past 15 years with the important exception of dieldrin which has remained low, but similar since 1970-71.

Although there is no difficulty in agreeing that exposure to high levels of pesticides can cause acute toxicities and even death, their effect at low levels is unclear. Doll and Peto, in their authoritative book *The Causes of Cancer*, examined the causes of all cancers and concluded that the occurrence of pesticides as dietary pollutants seems unimportant.

But the matter needs to be kept under review, particularly with the introduction of new pesticides on a regular basis.

Monheit BM and Luke BG, Pesticides in Breast Milk — a Public Health perspective, *Community Health Studies* 1990, XIV, 3, 269-273.

### COFFEE, CAFFEINE AND CARDIO-VASCULAR DISEASE IN MEN

For many years an association has been suspected between coffee drinking and cardio-vascular disease, but studies have been inconsistent. It is known that coffee may raise serum cholesterol levels, although this effect is probably influenced by the brewing method. In a large American trial involving more than 45,000 men, it has been shown that coffee and caffeine consumption does not increase the risk of coronary heart disease or stroke. (This is not in accord with a recent Scandinavian study which has shown that boiled coffee does raise the blood serum cholesterol levels, probably because boiled coffee leeches out the lipids from the coffee beans — editor.)

Grobbbee DE, Rimm EB, Giovannucci E, et al, Coffee, Caffeine and Cardio-Vascular Disease in Men, *N Eng J Med* 1990, 323, 1026-1032.