Relation between breast feeding, formula feeding, and diarrhoeal disease during early infancy with subsequent development of Crohn's disease in childhood. Results of relative risk estimate for each factor were adjusted for presence of other factor(s) in model with matched multivariate analysis

	Adjusted relative risk	95% Confidence interval	p Value for variable	p Value for model
Two variable model				0.0006
Not breast fed	3.8	1.5 to 9.5	0.005	
Had diarrhoea	2.9	1·3 to 6·4	0.010	
Two variable model				0.003
Formula fed	2.9	1·2 to 7·0	0.020	
Had diarrhoea	2.5	1·2 to 5·6	0.020	
Three variable model				0.002
Not breast fed	3.0	1.0 to 9.4	0.060	
Formula fed	1 4	0.5 to 4.5	0.520	
Had diarrhoea	2.8	1.2 to 6.2	0.012	

with diarrhoea in the two variable model. The three variable model showed that formula feeding did not itself contribute to the risk of Crohn's disease.

#### Comment

In this study lack of breast feeding was a risk factor associated with later development of Crohn's disease. Bergstrand and Hellers showed that affected adults had been breast fed less commonly and for a shorter duration than matched controls.2 Two other studies, however, did not find lack of breast feeding to be a risk factor.34

The findings in case-control studies often depend on the choice of control groups, and to evaluate the aetiological role of environmental factors in a genetically influenced disorder unaffected siblings are more appropriate controls than unrelated subjects. Whorwell et al also noted an increased prevalence of infantile diarrhoea among adults with Crohn's disease.3 Although the prevalence of infantile diarrhoea is influenced by feeding practices, diarrhoea was also independently associated with the development of the disease. Recall bias, however, cannot be completely excluded.

Crohn's disease may develop in genetically susceptible people as a result of an immunological response to an unidentified antigen in the mucosa. Such an immunoregulatory abnormality may be influenced by feeding practices in early infancy. Our findings, together with a recent report relating lack of breast feeding to an increased risk of childhood lymphoma,5 should encourage further research into the long term effects of feeding with human milk.

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# Effects of burglary on elderly people

Desmond O'Neill, Brendan O'Shea, Rita Lawlor, Carmel McGee, J B Walsh, Davis Coakley

The devastating effect of crime on the health and wellbeing of elderly people has been reported. Yet despite considerable publicity in the lay press it is unclear whether elderly people are more susceptible to crime. A report from the United States suggested that they may be burgled less often than younger people.2 We carried out a survey on the prevalence, effects, and possible risk factors of burglary among elderly people.

### Subjects, methods, and results

We assessed 315 consecutive admissions and outpatient referrals (mean age of patients 74, range 65-93) to a short stay geriatric medical service. Patients with cognitive dysfunction (43/315) were excluded. A further 100 outpatients and patients admitted to hospital (mean age 37, range 17-63) served as a younger group for comparison. Information was gathered by questionnaire and results analysed with  $\chi^2$  tests.

Of the 272 elderly people, 80 had been burgled, some several times, during the previous two years. A total of 122 burglaries were reported, a yearly rate of 22%. This compared with 16 burglaries reported by the control group, a yearly rate of 8% (p<0.01).

Social isolation, impaired mobility, and lack of security equipment were all more common among the elderly victims (table). Of the 29 victims who had had multiple burglaries, 22 were not independently mobile.

In a quarter of the cases the burglars had gained entry by using a confidence trick, particularly by posing as collectors for charity or as officials for utilities.

Potential risk factors for burglary among elderly people. Figures are numbers (percentages)

	Victims (n=80)	Non-victims (n=192)	p Value for difference
Social isolation*	34 (43)	42 (22)	<0.001
Impaired mobility	38 (48)	60 (31)	< 0.025
Lack of security equipment	55 (69)	102 (53)	<0.025

<sup>\*</sup>Alone by day and night.

Eleven of the elderly people had required medical treatment, five in hospital. None of the younger people had required medical attention. Psychological after effects were reported by 72 of the victims. These included fear of further burglary (57), anxiety or depression (36), sleep disorder (46), and fear of going out (32). Seventeen reported a reduction of their mobility after the burglary. Eleven had left their homes, eight of whom had stayed with relatives; seven had eventually returned to their own homes. One patient had moved house and three entered nursing homes.

### Comment

The ability of elderly people to maintain a homoeostatic balance in a stressful physical or psychological environment is diminished. Examples include the increased susceptibility to hypothermia with increased age,3 the effects of air pollution on elderly patients with chest disease, and increased morbidity and mortality in elderly people after the death of their spouses.5 We have highlighted the effects of an environmental

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hazard that has received little attention in medical reports.

We found an increased vulnerability to burglary among elderly people. The main factors underlying this phenomenon are social isolation, poor mobility, little use of security equipment, and an overtrusting attitude to callers. Elderly victims report particularly high objective (medical attention, decreased mobility, social disruption) and subjective (psychological burden) markers of stress and illness after burglary. The violation of the home seems to be particularly distressing: the home assumes increased importance with decreasing mobility and reduced social contacts.

This problem must be approached in a comprehensive manner by those concerned with health and housing services for elderly people. Doctors and other health care staff should provide identification at the first domiciliary visit and should not encourage such practices as leaving doors open for community health workers. Emphasis on security alone, however, may lead to a siege mentality and further isolation. Preventive measures such as education in schools, reconsideration of community policing policy, and increased public awareness will also be necessary. A prerequisite is the recognition of burglary and vandalism as important additional environmental hazards for elderly people living in the community.

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# Incidence and intensity of postpartum lower abdominal pain

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During labour women may experience lower abdominal pain related to the uterine contractions. In the postpartum period pain may persist but not be so severe. Mild analgesics are often used to relieve this, but at times they are inadequate. We determined the incidence and intensity of postpartum lower abdominal pain in relation to precipitating and relieving factors.

### Patients, methods, and results

One hundred primiparous and 100 multiparous women were interviewed with a standard questionnaire up to 48 hours after vaginal delivery. Fifty of the primiparous and 86 of the multiparous women complained of lower abdominal pain (p<0.001). Periodic pain occurred in 49 (98%) and 79 (92%) of these primiparous and multiparous women respectively, and it was almost twice as frequent in the multiparous compared with the primiparous women. Back pain was associated with the lower abdominal pain in half the women.

The maximum intensity of the pain was scored by the mothers with a simple word score, a visual analogue score, and the McGill pain questionnaire.2 Severe and moderate pain occurred in 30 primiparous and 58 multiparous women. The visual analogue scores showed a skewed distribution with the mode in the primiparous women being 2-3 cm and that in the multiparous women 4-5 cm. The table shows the results of the McGill pain questionnaire. The words used most commonly to describe the pain were throbbing, cramping, and aching. The pain was described as sharp by 11 (22%) primiparous women compared with 30 (35%) multiparous women.

The pain was relieved by a change in position, sleep, and oral analgesics in half the women in both groups; by passing urine in a quarter of the women in both groups; and by physiotherapy exercises in 20 (40%) primiparous women compared with 14 (16%) multiparous women (p<0.01). Breast feeding exacerbated the pain in 48 (96%) of the primiparous women and 70 (81%) of the multiparous women.

Multiparous women were asked if they had had similar pain in previous pregnancies. About half of the women with one other child could not remember having had postpartum pain. Mothers of two and more children could almost always recall a similar pain that had tended to increase in severity with each labour. Individual effects of ethnic origin (either European or West Indian and African descent), epidural analgesia, oxytocic drugs, and method of feeding the baby on the incidence of lower abdominal pain showed no significant difference between the two groups.

#### Comment

After delivery the incidence of lower abdominal pain was significantly higher in multiparous women than primiparous women (p<0.001) despite less surgical intervention. The pain is probably uterine in origin as it is central and intermittent, such as would originate from a muscular viscus, and exacerbated by breast feeding. It was more severe in multiparous women as scored by a word scale and visual analogue scale. The McGill pain questionnaire scores were similar in the two groups, of a severity between that of menstrual and labour pains,34 but up to 10% of women who had experienced pain had a total pain rating index score of above 30, which is as severe as that recorded in labour.

The McGill pain questionnaire showed a difference between the groups in the affective category of tiredness. This may reflect the longer duration of the first stage of labour in primiparous women, and sleep was a relieving factor. The use of exercises and change of position requires further evaluation because in primiparous women they gave greater relief than expected. The severe pain observed in some of the women requires to be identified and supportive treatment given.

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Total pain rating index scores\* in primiparous and multiparous women complaining of postpartum lower abdominal

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Total pain	No of primiparous	No of multiparous
rating index score	women (n=50)	women (n=86)
0-	8	19
6-	10	11
11-	14	14
16-	9	17
21-	4	8
26-	1	8
31-		5
36-	2	2
41-	1	2
46-50	1	

(SE)  $15{\cdot}4\,\dot{(1{\cdot}5)}=16{\cdot}1\,(1{\cdot}1)$ 

\*Based on McGill pain questionnaire with rank order

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