The sort of chronic persistent asthma that might be treated with the "toxic drugs" he mentions. Perhaps we were unfair to dismiss the British Tubercolus Association's study of 1968 as producing "negative results. In fact, the details of the recorded wheezing score, use of bronchodilators, and of prescriptions of medications to control hyperreactivity, divided by sex (their table IV), showed a difference between treated and control groups only for wheezing score in females (that is, five out of six comparisons showed no difference). The paper notes no details of the methods used for the independent clinical assessments other than that they "were made by a physician unaware of the patient's treatment."

Dr Morrison's own study gave impressive results, but it is a pity that the comparative control period had to be retrospective. Careful attention to many aspects of the care of asthmatic patients can produce a reduction in corticosteroid treatment and admissions. As we stated in our review, if hypnosis is to be advocated as a means of obtaining these ends there is a need to establish both a reliable method of scoring the degree to which patients are susceptible to hypnosis and a standardised form of treatment acceptable to patients over long periods.

DONALD J LANE
Consultant chest physician, Otolaryngology Unit, Churchill Hospital, Oxford OX3 7LJ

We read the editorial entitled "Alternative and complementary medicine for asthma" by Dr DJ Lane and TV Lane (November 1991; 46:787-97) with interest. We could not agree that the British Tubercolus Association's study did not report negative results as stated in the review. The "independent clinical assessors considered the asthma to be much better in 59% of the hypnosis groups and in 43% of the control group, the difference being significant." These results were obtained by using only direct suggestion using hypnosis, and autohypnosis only; more advanced methods, such as reciprocal inhibition, were not used.

In my own study it was possible to withdraw oral prednisolone or to reduce the dose in 14 of the 16 patients treated by hypnosis. The number of hospital admissions during the first year of hypnotherapy fell to 13, compared with 44 during the previous year. This represented a reduction of 249 hospital days, which at 1986 costs (£170 per day) saved the NHS £24 330. As some 55 000 adults are admitted each year for asthma, savings to the NHS could be considerable if hypnotherapy were to be used more widely.

JOHN B MORRISON
Consultant physician, 78 Stanserdun New Road, Southport, Merseyside PR8 6JP


AUTHOR'S REPLY We thank Dr Morrison for his interest in our article. On the question of bronchial hyperreactiveness, he seems to have missed our discussion of this on page 794. The changes recorded by Ewer and Stewart, though significant statistically, are unlikely to make much difference clinically. We know of no work on the use of hypnosis in

LETTERS TO THE EDITOR

Alternative and complementary medicine for asthma

Readers of the review by DJ Lane and TV Lane (November 1991; 46:787-97) might conclude that hypnosis has little to offer asthmatic patients. Although the report of Ewer and Stewart is quoted as showing improvement in symptom scores and some peak expiratory flow rates and decreased use of bronchodilators, no mention is made of a 74.9% improvement (p < 0.01) in the degree of bronchial hyperresponsiveness to a standardised methacholine challenge test. These authors state that "while our hypnotic technique does not eliminate bronchial hyperresponsible it does provide a clinically useful and non-toxic adjuvant to drug treatment, that might benefit about half of the asthmatic population." This approach could well reduce the use of the toxic drugs, such as theophyllin, azathiopepine, and methoxthazine, mentioned as steroid sparing agents by Shiner and Geddes.

The British Tubercolus Association's study did not report negative results as stated in the review. On the contrary, "independent clinical assessors considered the asthma to be much better in 59% of the hypnosis groups and in 43% of the control group, the difference being significant." These results were obtained by using only direct suggestion using hypnosis, and autohypnosis only; more advanced methods, such as reciprocal inhibition, were not used.

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Though there have been international meetings and an increasing number of articles on speleotherapy, there have been virtually no trials studies. Some articles have discussed the temperature, humidity, volume, electrical characteristics, types of air flow, and gas content of the indoor environment, but no objective benefit of speleotherapy has been documented. Ten patients in our study group visited Damlats cave in the south of Turkey for three to four weeks in the summer, and all stated that they had felt comfortable for several months and were able to reduce their bronchodilator drug dosage. Further controlled and objective studies are needed on this subject.

Boleets and Turkish are two methods of alternative medicine that have not previously mentioned in published reports. The "bracelet" epidemic spread from south-east Asia to Turkey, and asthmatic patients as well as those with rheumatological problems began using bracelets. Six patients in the study group were wearing bracelets for the relief of their pulmonary symptoms.

Alternative medicine has emerged as a consequence of conventional medicine's lack of effective treatment for breathlessness. Some practices have arisen through experience that has accumulated over hundreds of years and have become traditional. Others have resulted from individual therapists who believe that public interest in alternative medicine will diminish in time with both progress in research for more efficient treatments and the realisation by patients of the effectiveness of conventional treatment.


Air pollution and respiratory morbidity

We read with interest the article by Dr J Britton (May 1992;47:391-2). This raises a number of important points but perpetuates confusion over EC limit values, EC guide values, and WHO air quality guidelines; this confusion is prevalent among the authors of Sunyer et al which Dr Britton refers. EC limit values and guide values are often expressed in terms of percentiles, with which individual measurements should not be compared. For example, the EC limit value for