the others being associated with such activities as pushing or loading vehicles, carrying a friend, making love, or electrocution, all of which tend to suggest sudden severe muscular activity with raised blood pressure. In civilian practice, subarachnoid haemorrhage is frequently associated with making love. In this series, however, it would seem that soldiers spend more time making war—not love.

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Doctors and children's teeth

SIR,—As a doctor and mother of a 16-month-old child I read with interest your leading article (12 May, p 1231) on doctors and children's teeth. I have two specific queries.

Tap water in this area is not fluoridated. Is it advisable to give children fluoride tablets? The recommended dosage on the packet I bought in the local chemists suggests one 2.2 mg fluoride tablet on alternate days to the age of 2, then one tablet each day until the age of 12.

Is it advisable to use fluoridated toothpaste at an early age in conjunction with giving the tablets, or on its own if the tablets are not recommended? I note your expert suggests plain toothpaste until the child can rinse or spit without swallowing.

MARGARET A CURRAN

Hull, N Humberside

*.*With regard to the first of Dr Curran's queries, a recommended dose for sodium fluoride tablets, where the concentration of fluoride in the local water supply is less than 0.5 part per million, is 0.25 mg per day from birth, rising to 0.5 mg per day by the age of 2, then 1 mg a day until age 8—that is, until after the crowns of all the teeth except the third molars have been completed.¹ For infants and young children the tablet may be crushed and given in water or orange juice, or alternatively fluoride drops in equivalent dose may be used in a feed or bottle drink. Older children should be encouraged to suck or chew the tablets so that there is a local effect on the erupted teeth as well as a general effect on those still developing. If the 2.2 mg tablets are used, one may be dissolved in 2 litres of water to prepare a solution of 1 ppm. This can be used to make up feeds and drinks for an infant.

The problem with fluoride tablets is the danger to the child if they are swallowed accidentally in substantial numbers. This is because, if they are to be given regularly with food and drink, they may be stored in an unlocked kitchen cupboard and not in a locked drug cabinet. Another disadvantage is that the tablets may not be dispensed regularly day after day for eight years. Regular administration of small amounts is essential if protection is to be achieved. The temptation to give bumper doses to "catch up" if the tablets have not been given regularly could result in a line of enamel fluorosis. It is for this reason that fluoridation of the water supply is the best and safest method which has been devised so far for providing a supplement of fluoride where it is not already available in the natural water supply.

The effect of the systemic administration needs to be reinforced by topical application after the teeth have been erupted for some years, and the simplest way to do this is to use fluoridated tooth paste. Additional special topical applications of fluoride can be carried out by the dental surgeon at six-monthly intervals, particularly during childhood and early adolescence, when there is the greatest risk of approximal cavities developing in the teeth. The disadvantage of using fluoridated toothpaste before the child can rinse and spit without swallowing is that it is theoretically possible for the youngster to swallow an appreciable amount of additional fluoride, though it is not certain how much of this is absorbed. As with all diet supplements, enough produces the right effect and too much is likely to produce adverse effects, though with the doses mentioned the safety margin, before even minor enamel blemishes occur, is considerable.—Ed, *BMJ*.

¹ Holloway, P J, and Swallow, J N, *Child Dental Health*, 2nd edn, p 72. Bristol, John Wright and Sons Ltd, 1975.

Pressure on the tracheal mucosa from cuffed tubes

SIR,—As a physician, an officer of a company that manufactures tracheal tubes, and a member of the American National Standards Institute Z-79 subcommittee on tubes and cuffs for prolonged use, I have a deep interest in the article by Drs J M Leigh and J P Maynard (5 May, p 1173) entitled "Pressure on the tracheal mucosa from cuffed tubes."

The technique employed by Leigh and Maynard was to place the pressure sensor between the cuffs and the wall of the model trachea. While this may be an acceptable method to measure pressure exerted by air-filled cuffs it is an entirely unsatisfactory method for measuring pressure exerted by foam-filled cuffs. The pressure exerted by a foam-filled cuff is due to elastic recoil, acting much like a sponge or the cushions of modern living-room furniture. If a pressure sensor measuring 3 mm in thickness is placed between the foam-filled cuff and the tracheal wall (as was done by Leigh and Maynard) the sensor will measure the force exerted by the compressed area of foam in direct contact with the sensor. This has the effect of placing the same cuff in a model trachea whose diameter is 3 mm smaller.

Leigh and Maynard could have obtained realistic pressure measurements for foam-filled cuffs by placing the sensor so that the innermost surface of the sensor was flush with the inner wall of the model trachea. Had this been done the pressure readings for foam-filled cuffs would have been well below 20 mm Hg. The effects of mechanical ventilation on tracheal volume and tone and the corresponding cuff adjustments that become necessary to maintain no-leak ventilation and aspiration protection cannot be evaluated in a rigid-model trachea. Periodic in-vivo measurement of cuff volume remains the only way to clinically recognise tracheal dilatation. And initial cuff volume measurement is the only way to ensure that the appropriate cuff size is in a given trachea.

S W SHAPIRO

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SIR,—Dr W G Notcutt (9 June, p 1566) asks for information concerning the use of the Lanz endotracheal tube. We are currently conducting a clinical investigation in patients undergoing cardiac surgery of the effects on the trachea of the Lanz and the Portex Blue Line tube.

Briefly, we have so far studied 22 patients who were electively ventilated via an endotracheal tube for some 24 hours postoperatively. At the time of surgery patients were intubated with either a Lanz or a Portex tube (selected on a random basis). The seal point of the cuff was determined by the anaesthetist concerned, and no special effort was made to standardise the procedure. On extubation the trachea was examined with a fiberoptic bronchoscope by the method of Matthias and Wedley.¹ This assigns a score from 0 to 9 which takes into account the amount of tracheal damage, quantified by the degree of oedema, ulceration, and haemorrhage present. Photographs of the trachea were taken at the same time, and these were later scored by an independent observer. The mean tracheal damage scores for the 11 patients with the Lanz tube assigned by both the bronchoscopist and the independent assessor are lower than those for the 11 with the Portex tube, and this difference was significant when the results were analysed by Wilcoxon's rank sum test ($P < 0.05$).

Our preliminary results support the experimental findings of Drs J M Leigh and J P Maynard (5 May, p 1173) and suggest that the Lanz type tube may have some advantages in the patient where long-term endotracheal intubation is undertaken. For those not familiar with high-volume cuffed endotracheal tubes, we would point out that the introduction of the Lanz endotracheal tube into the trachea may not be straightforward and an introducer should be at hand.

Our investigation is continuing and we intend to extend the study to include the Portex Profile tube.

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¹ Matthias, D B, and Wedley, J R, *Anaesthesia*, 1974, 46, 849.

Thalidomide and the "Lancet"

SIR,—I deeply regret that I risked spoiling what was intended to be a serious review of an emotionally and intellectually stimulating book (9 June, p 1553) by including an unnecessary and, as it turns out, erroneous statement about decisions made by the *Lancet* in 1961. I can offer no excuse for wrongly stating that Dr W G McBride's letter of 16 December 1961 appeared, not in the *Lancet*, but in the *BMJ*. On the other hand, I might perhaps be partly forgiven for not questioning the statement in the book to the effect that the *Lancet* decided not to publish an earlier paper by McBride (see p 88 of the book). If this statement is true, it is of sufficient historical interest for it to be recorded, although, without precise knowledge of the contents of the allegedly rejected paper, one should certainly not assume that the decision to reject it