deaths and there must be a place for resuscitation. The doctor faced with a frightened mother who has just read an article on cot deaths has to explain that all living is dangerous and that at least her baby has got past the more dangerous stage of birth. Fear will not help a mother to feed her baby.

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Vitamin E in Athletics

The provision for athletes of a diet rich in nutrients known to have either a direct or indirect effect on muscular performance has been tried,[1] and there are several reasons why vitamin E has attracted interest in this respect.

Recently I. M. Sharman and colleagues[2] have studied the question whether α-tocopheryl acetate can increase the output of energy and whether it can help sportsmen to perform better and so win their events. Thus in some animals deficiency of the vitamin causes muscular dystrophy,[3] and it might therefore be reasonable to assume that when the muscles of competitors are subjected to strain, as in athletic contests, their requirements might be increased and not met by the amounts provided by an ordinary diet. A further reason for expecting that vitamin E might benefit athletic performance is based on the evidence that in experimental animals resistance to both hypoxia and hyperoxia can be influenced by their vitamin E status. The possible protective effect of vitamin E in relation to hypoxia gained importance from the venue of the Olympic Games at Mexico City in 1968. In an investigation organized by the British Olympic Association strong evidence was obtained that the performance of athletes, particularly long-distance runners, is adversely affected by competition at high altitudes.[4]

There have been several claims that vitamin E can improve performance. T. K. Cureton, in a series of papers,[5-9] has found beneficial effects when giving athletes doses of either vitamin E or wheat germ oil. On the other hand P. Thomas[10] could find no significant differences between dosed and undosed people in cardiorespiratory and motor-fitness tests. L. Prokop,[11] who subsequently investigated the short-term effects of dosing people with the vitamin, found that when they performed a standard exercise task those who had been dosed recovered quicker after exercise. These claims and attempts by other workers to improve performance, mainly swimming, by vitamin E therapy have been made, and while the conclusions have usually been favourable to the value of the vitamin the results have generally been unconvincing on scientific and statistical grounds. Furthermore the effects of training during the trials have not always been taken into consideration, nor has sufficient care been taken to eliminate any psychological influences which might motivate a bias in the results.

Sharman and his colleagues at Loughborough,[2] in a controlled trial with 400 mg vitamin E daily, examined the performance of adolescent schoolboy swimmers. They found no significant differences at the 5% confidence level in the effects of the vitamin as such, and in particular no evidence was obtained of its suggested ergogenic properties.

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"The Loose Back"

Lumbago continues to be a major cause of disability and consequent loss of work. Thus in the year ending June 1967 there were 9·63 million certified days of incapacity from this cause in men and 0·31 million in women.[1] Nevertheless, the word "lumbago" merely signifies low back pain, and its causes range from ligamentous injury and protrusion of an intervertebral disc to secondary neoplasm and osteomyelitis, or psychological upsets.

One little discussed cause of backache is generalized hypermobility of the joints. Well described in 1967 by J. A. Kirk and his colleagues,[2] this condition is characterized by hypermobility in the hands and wrists, and to a lesser extent in the legs. The hypermobility of the joints is an isolated phenomenon, and is thought to be the result of generalized familial laxity of the ligaments. The symptoms vary in duration and severity, but usually patients complain of pain in the muscles and joints. Often, however, the symptoms are so mild that sufferers do not seek medical attention. Nevertheless, out of 19 of the 24 patients studied by Kirk and his colleagues in whom the sites of joint pain were recorded, four had experienced pain in the back.

R. G. Howes and I. C. Isdale[3] have now applied for concept that hypermobility and ligamentous laxity may produce skeletal pain to a study of backache. They have analysed their findings in a study of 102 consecutive cases of "problem" backache. In most of the 59 men the authors were able to satisfy themselves about the cause of the backache, and this group contained no more patients with joint hypermobility than would have been expected from a control series also studied. Nevertheless, the group of 43 women with problem backache contained a subgroup of 20 in whom no definite cause for backache could be found, and in them there were many more patients with hypermobile joints than would have been expected by chance; 17 had increased ranges of movement by two of the criteria used and nearly all of these had hypermobility of the spine.

Lumbago is a symptom, and to be certain of its cause there must be a characteristic history, specific and objective physical signs, or a diagnostic radiological or other abnormality. In most soft tissue lesions only the history and signs are relevant, and it is logical to assume that while both ligamentous strain and a disc protrusion will produce pain and

tenderness, the former will generally not restrict spinal movement, and the latter—by virtue of being an articular derangement—usually will. The suggestion by Howes and Isdale that generalized hypermobility of the joints may be the cause of some cases of backache is an interesting hypothesis, and should encourage many workers in the field to look out for it.

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Pupillary Mobility and Skin Colour

Attempts to correlate colour of the iris with race[1] have led research workers to neglect a related and more important topic—namely, whether pupillary dynamics are correlated with race or colour of the skin. This has now been partly remedied.

U. P. Emiru[2] has measured the pupillary diameter after instillation of 4% homatropine and later 4% phenylephrine in both eyes of 14 Africans of unspecified ethnic group (mean age 32·5 years), four albino Africans (mean age 22 years), and five Europeans (mean age 43 years). He continued his observations for an hour. The data from this comparatively simple measurement raise a number of problems, and some yield interesting information too. In the first place the pupils in the three groups do not seem to have reached their maximum dilatation at the end of the measurements. Indeed there is no indication when it is likely to be complete. Secondly, the normal Africans' pupils apparently did not dilate to more than about 60% of the amount to which the pupils of the albino Africans and the Europeans dilated. The comparisons are encumbered by the different mean ages of the three groups. As the iris ages it constricts more readily but the normal pupil exhibits senile contraction[3] even when it is dilated. Emiru's data for Europeans and African albinos are consistent with these observations. What is therefore specially significant is that his normal Africans differ appreciably from the other two groups. Their incomplete dilatation is accompanied by a clear reduction in the rate of dilatation. Normal Africans need at least 8 more minutes to reach their estimated semimaximal dilatation than do the two other groups.

As an adaptation to the environment these observations are easy to understand. In so far as light may constitute a hazard to the retina,[4] natural selection makes it hard for the negroid pupil to dilate. But the underlying physiology is obscure. Emiru makes the interesting observation that negroid irises are thicker than European ones and that they possess fewer crypts. This means that the effective iridal surface is smaller in the African and that the mydriatic is therefore offered a smaller surface across which to act. But this argument is true only if the extra-iridal aqueous volumes under comparison are equal. This is plainly not a matter anyone would wish to subject to measurement. Emiru's point about the African iris being almost twice as thick as the European is more helpful in this context in providing a possible explanation for his observations.

This pioneer study needs extending. An adequate definition of the clinical material is called for, as Emiru's place of work (Uganda) enables us to guess but not to know who the patients are. Moreover, it is important to establish a complete dilatation curve with an unambiguous terminal plateau, so that it may be reliably established whether the "African" pupil gets there ultimately if rather slowly or—and this would be more interesting—if it gets stuck well below the non-coloured maximum.

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British Society of Digestive Endoscopy

The endoscopic examination of the gastrointestinal tract is in a stage of rapid development for several reasons. Firstly, the use of fully flexible fibreoptic instruments has turned oesophagoscopy and gastroscopy into minor procedures which can be performed on outpatients as a matter of course and with very small risk. Secondly, new instruments have appeared for duodenoscopy and colonoscopy, thus rendering accessible to view lesions which were previously hidden.[1-3] Thirdly, and perhaps most important, all the latest instruments are equipped for taking biopsy specimens and cytological samples under direct vision.[4] The biopsy can be so precisely located that the term "target biopsy" has been used to describe it.

These procedures have various uses. They often permit an exact "tissue diagnosis" in such situations as an ulcerating carcinoma presenting with the same radiological and gastroscopic features as a benign gastric ulcer.[5] They open the possibility of increasing our knowledge of the course of diffuse inflammatory conditions, such as chronic gastritis, of which we are at present largely ignorant. The biopsy specimens, being completely fresh, are capable of being studied in a variety of ways, such as by electron-microscopy, tissue culture, and enzymatic assay, so there are possibilities for fundamental research into a great variety of mucosal functions.

These reasons underlie the formation of the British Society of Digestive Endoscopy, which has just come into being. The society is anxious to assist in the training and education of novice endoscopists, for there can be no question but that a great expansion will occur in the use of the new instruments in gastrointestinal diagnosis. In addition, the society has the laudable aim of bringing together not only endoscopists but other workers with related interests such as histopathologists, cytologists, radiologists, and biochemists interested in the gastrointestinal tract. Details of the society are obtainable from its honorary secretary, Dr. K. F. R. Schiller, St. Peter's Hospital, Chertsey, Surrey.

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